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NELAP Certification Number: CA00046

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State Certification Number:

January 13, 2023

Watson Tanji
AECOM Honolulu
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

RE: Red Hill AFFF Assessment Sampling
22L0126

Enclosed are the results of analyses for samples received by our laboratory on 12/16/2022. If you have any questions concerning this report, please feel free to contact me.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness. These test results meet all requirements of NELAC and DoD QSM. Release of the hard copy has been authorized by the Laboratory Manager or designee, as verified by the following signature.

Sincerely,

Greg Salata For Gregory Salata
Project Manager

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AECOM Honolulu
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Project: Red Hill AFFF Assessment Sampling
Project Number: Red Hill AFFF Assessment Sampling
Project Manager: Watson Tanji

Reported: 01/13/2023 08:14

Data Validatable Report

Analysis Case Narrative

EPA 1633: Manual integrations were performed for this method in accordance with APPL's SOP. Chromatograms after manual integration are enclosed for specific samples and analytes. Abbreviated flags for technical justification are listed on the chromatogram. Some extracted internal standards recovered outside of control limits in some samples, these samples were diluted and recovered in control, unless stated otherwise.

The extracted internal standard 13C2-4:2FTS recovered above the upper control limit in the SPLP extraction of sample 03 - DIT6-DU07-SON01MI-22DEC.

The extracted internal standard 13C2-4:2FTS recovered above the upper control limit in the BBL0470-BLK1. The extracted internal standards D3-NMeFOSA and D5-NEtFOSA recovered below the lower control limit.

The extracted internal standards D3-NMeFOSA and D5-NEtFOSA recovered below the lower control limit in the BBL0470-BS1.

Two analytes recovered above the upper control limit in the BBL0470-MS1 performed on sample 01 – ADIT6-DU05-SON01MI-22DEC. Nine analytes recovered above the upper control limit in the MSD. Thirteen analytes recovered with high RPD between the MS/MSD.

EPA 1633 SPLP:

The BBL0475-BS1 and BBL0475-MRL1 were errantly, not spiked. The reported results are from co-extracted waste water QC performed similarly. The extracted blank was not effected.

The extracted internal standard 13C2-4:2FTS recovered above the upper control limit in sample 03 - ADIT6-DU07-SON01MI-22DEC.

The extracted internal standard 13C2-4:2FTS recovered above the upper control limit in the BBL0475-BLK1.

The analyte PFBA recovered above the upper control limit in the SB03989-LCV1.

The analyte PFDA recovered above the upper control limit in the SB04022-LCV1.

The analyte PFDoS recovered above the upper control limit in the SB04022-CCV2.

The analyte 11CI-PF3OudS recovered above the upper control limit in the SB04022-CCV3.

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
22L0126-01	ADIT6-DU05-SON01MI-22DEC	Solid	12/15/2022 15:10	12/16/2022
22L0126-02	ADIT6-DU06-SON01MI-22DEC	Solid	12/15/2022 14:40	12/16/2022
22L0126-03	ADIT6-DU07-SON01MI-22DEC	Solid	12/15/2022 14:55	12/16/2022
22L0126-04	ADIT6-DU08-SON01MI-22DEC	Solid	12/15/2022 11:32	12/16/2022

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Containers Received

Lab ID	Container Type	Count	Preservation Check
22L0126-01	Ziplock Gallon	1	
22L0126-02	Ziplock Gallon	1	
22L0126-03	Ziplock Gallon	1	
22L0126-04	Ziplock Gallon	1	

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Project: Red Hill AFFF Assessment Sampling

Project Number: Red Hill AFFF Assessment Sampling

Project Manager: Watson Tanji

Reported: 01/13/2023 08:14

Sample Results

Sample: ADIT6-DU05-SON01MI-22DEC
22L0126-01 (Solid)

Per- and Polyfluoroalkyl Substances

Analyte	Result /Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
PFBA	0.34	0.30	0.20	0.15	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFPEA	0.89	0.080	0.040	0.022	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFHXA	0.93	0.040	0.020	0.015	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFHPA	0.22	0.040	0.020	0.015	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFOA	0.066	0.040	0.030	0.021	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFNA	0.030 U	0.040	0.030	0.022	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFDA	0.030 U	0.040	0.030	0.022	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFUnA	0.020 U	0.040	0.020	0.020	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFDOA	0.030 U	0.040	0.030	0.023	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFTRDA	0.020 U	0.040	0.020	0.016	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFTEDA	0.030 U	0.040	0.030	0.025	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFBS	0.016 J	0.040	0.020	0.016	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFPEs	0.018 J	0.040	0.020	0.012	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFHXS	0.20	0.040	0.020	0.015	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFHPS	0.020 U	0.040	0.020	0.011	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFOS	0.72	0.040	0.020	0.0097	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFNS	0.020 U	0.040	0.020	0.015	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFDS	0.020 U	0.040	0.020	0.014	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFDOS	0.020 U	0.040	0.020	0.013	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
4:2FTS	0.080 U	0.16	0.080	0.045	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
6:2FTS	11	0.16	0.080	0.061	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
8:2FTS	0.080 U	0.16	0.080	0.051	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFOSA	0.020 U	0.040	0.020	0.012	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NMeFOSA	0.080 U	0.16	0.080	0.066	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NEtFOSA	0.080 U	0.16	0.080	0.027	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NMeFOSAA	0.020 U	0.040	0.020	0.010	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NEtFOSAA	0.020 U	0.040	0.020	0.018	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NMeFOSE	0.080 U	0.16	0.080	0.054	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NEtFOSE	0.080 U	0.16	0.080	0.047	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
HFPO-DA	0.040 U	0.080	0.040	0.022	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
ADONA	0.040 U	0.080	0.040	0.026	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFEESA	0.040 U	0.080	0.040	0.017	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFMPA	0.040 U	0.080	0.040	0.028	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFMBA	0.040 U	0.080	0.040	0.032	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NFDHA	0.060 U	0.080	0.060	0.049	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
9CL-PF3ONS	0.040 U	0.080	0.040	0.024	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
11CL-PF3OUDS	0.040 U	0.080	0.040	0.027	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
3:3FTCA	0.080 U	0.16	0.080	0.064	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
5:3FTCA	0.14 J	0.16	0.080	0.065	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
7:3FTCA	0.080 U	0.16	0.080	0.050	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
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Surrogate: 13C4-PFBA	96.9%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C5-PFPEA	90.8%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C5-PFHXA	95.4%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C4-PFHPA	94.5%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C8-PFOA	93.7%		20-150			12/30/22	1	EPA 1633	BBL0470

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Reported: 01/13/2023 08:14

Sample Results

(Continued)

Sample: ADIT6-DU05-SON01MI-22DEC (Continued)
22L0126-01 (Solid)

Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result /Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
Surrogate: 13C9-PFNA	83.0%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C6-PFDA	98.3%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C7-PFUnA	96.4%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C2-PFDOA	94.2%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C2-PFTEDA	103%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C3-PFBS	98.1%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C3-PFHXS	93.0%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C8-PFOS	97.4%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C2-4:2FTS	136%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C2-6:2FTS	120%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C2-8:2FTS	75.5%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C8-PFOSA	79.0%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: D5-NETFOSA	48.3%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: D3-NMEFOSA	44.1%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: D3-NMEFOSAA	88.0%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: D5-NETFOSAA	122%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: D7-NMEFOSE	72.0%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: D9-NETFOSE	81.2%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C3-HFPO-DA	92.6%		20-150			12/30/22	1	EPA 1633	BBL0470
PFBA	18	8.5	4.2	1.1	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
PFPEA	37	4.2	4.2	0.34	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
PFHXA	45	2.1	2.1	0.29	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
PFHPA	9.3	2.1	1.1	0.22	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
PFOA	3.0	2.1	1.1	0.79	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
PFNA	0.53 J	2.1	1.1	0.43	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
PFDA	1.1 U	2.1	1.1	0.53	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
PFUnA	1.1 U	2.1	1.1	0.85	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
PFDOA	1.1 U	2.1	1.1	0.58	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
PFTRDA	1.6 U	2.1	1.6	1.1	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
PFTEDA	1.1 U	2.1	1.1	1.1	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
PFBS	1.2 J	2.1	1.1	0.20	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
PFPEs	1.3 J	2.1	1.1	0.33	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
PFHXS	12	2.1	1.1	0.17	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
PFHPS	0.45 J	2.1	1.1	0.27	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
PFOS	25	2.1	1.1	0.34	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
PFNS	1.1 U	2.1	1.1	0.64	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
PFDS	1.1 U	2.1	1.1	0.79	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
PFDOS	1.1 U	2.1	1.1	0.64	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
4:2FTS	4.2 U	8.5	4.2	1.5	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
6:2FTS	1100	8.5	4.2	1.6	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
8:2FTS	4.2 U	8.5	4.2	0.43	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
PFOSA	1.1 U	2.1	1.1	0.53	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
NMeFOSA	4.2 U	8.5	4.2	2.5	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
NEtFOSA	4.2 U	8.5	4.2	2.2	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
NMeFOSAA	1.1 U	2.1	1.1	0.58	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
NEtFOSAA	1.1 U	2.1	1.1	0.58	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475

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Project Manager: Watson Tanji

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Sample Results

(Continued)

Sample: ADIT6-DU05-SON01MI-22DEC (Continued)
22L0126-01 (Solid)

Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result /Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
NMeFOSE	6.4 U	8.5	6.4	5.3	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
NEtFOSE	6.4 U	8.5	6.4	5.3	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
HFPO-DA	2.1 U	4.2	2.1	0.90	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
ADONA	2.1 U	4.2	2.1	0.64	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
PFEESA	2.1 U	4.2	2.1	0.58	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
PFMPA	2.1 U	4.2	2.1	0.29	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
PFMBA	2.1 U	4.2	2.1	0.48	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
NFDHA	2.1 U	4.2	2.1	1.6	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
9CL-PF3ONS	2.1 U	4.2	2.1	1.1	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
11CL-PF3OUDS	2.1 U	4.2	2.1	1.1	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
3:3FTCA	4.2 U	8.5	4.2	3.0	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
5:3FTCA	16	8.5	4.2	2.3	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
7:3FTCA	4.2 U	8.5	4.2	2.9	ng/L	12/30/22	1	EPA 1633 SPLP	BBL0475
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Surrogate: 13C4-PFBA	85.0%		20-150			12/30/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C5-PFPEA	106%		20-150			12/30/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C5-PFHXA	111%		20-150			12/30/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C4-PFHFA	111%		20-150			12/30/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C8-PFOA	93.8%		20-150			12/30/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C9-PFNA	101%		20-150			12/30/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C6-PFDA	98.1%		20-150			12/30/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C7-PFUnA	108%		20-150			12/30/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C2-PFDOA	106%		20-150			12/30/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C2-PFTEDA	58.0%		20-150			12/30/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C3-PFBS	121%		20-150			12/30/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C3-PFHXS	110%		20-150			12/30/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C8-PFOS	99.2%		20-150			12/30/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C2-4:2FTS	172% S2		20-150			12/30/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C2-4:2FTS	141%		20-150			12/31/22	10	EPA 1633 SPLP	BBL0475
Surrogate: 13C2-6:2FTS	129%		20-150			12/30/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C2-8:2FTS	69.5%		20-150			12/30/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C8-PFOSA	119%		20-150			12/30/22	1	EPA 1633 SPLP	BBL0475
Surrogate: D5-NETFOA	55.2%		20-150			12/30/22	1	EPA 1633 SPLP	BBL0475
Surrogate: D3-NMEFOA	62.3%		20-150			12/30/22	1	EPA 1633 SPLP	BBL0475
Surrogate: D3-NMEFOSAA	101%		20-150			12/30/22	1	EPA 1633 SPLP	BBL0475
Surrogate: D5-NETFOSAA	105%		20-150			12/30/22	1	EPA 1633 SPLP	BBL0475
Surrogate: D7-NMEFOSE	81.3%		20-150			12/30/22	1	EPA 1633 SPLP	BBL0475
Surrogate: D9-NETFOSE	73.5%		20-150			12/30/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C3-HFPO-DA	103%		20-150			12/30/22	1	EPA 1633 SPLP	BBL0475

WetLab

Analyte	Result /Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
% Solids	79.9	2.00	1.50	0.750	%	12/19/22	1	ISM02.2	BBL0347

AECOM Honolulu
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Project: Red Hill AFFF Assessment Sampling
Project Number: Red Hill AFFF Assessment Sampling
Project Manager: Watson Tanji

Reported: 01/13/2023 08:14

Sample Results (Continued)

**Sample: ADIT6-DU06-SON01MI-22DEC
22L0126-02 (Solid)**

Per- and Polyfluoroalkyl Substances

Analyte	Result /Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
PFBA	0.19 U	0.29	0.19	0.15	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFPEA	0.13	0.078	0.039	0.021	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFHXA	0.15	0.039	0.019	0.015	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFHPA	0.068	0.039	0.019	0.015	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFOA	0.12	0.039	0.029	0.021	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFNA	0.034 J	0.039	0.029	0.021	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFDA	0.029 U	0.039	0.029	0.021	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFUnA	0.019 U	0.039	0.019	0.020	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFDOA	0.029 U	0.039	0.029	0.022	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFTRDA	0.019 U	0.039	0.019	0.016	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFTEDA	0.029 U	0.039	0.029	0.024	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFBS	0.019 U	0.039	0.019	0.016	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFPEs	0.019 U	0.039	0.019	0.011	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFHXS	0.16	0.039	0.019	0.015	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFHPS	0.016 J	0.039	0.019	0.010	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFOS	1.7	0.039	0.019	0.0094	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFNS	0.019 U	0.039	0.019	0.014	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFDS	0.019 U	0.039	0.019	0.013	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFDOS	0.019 U	0.039	0.019	0.013	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
4:2FTS	0.078 U	0.16	0.078	0.044	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
6:2FTS	0.085 J	0.16	0.078	0.059	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
8:2FTS	0.078 U	0.16	0.078	0.050	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFOSA	0.019 U	0.039	0.019	0.012	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NMeFOSA	0.078 U	0.16	0.078	0.064	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NEtFOSA	0.078 U	0.16	0.078	0.026	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NMeFOSAA	0.019 U	0.039	0.019	0.0098	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NEtFOSAA	0.019 U	0.039	0.019	0.017	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NMeFOSE	0.078 U	0.16	0.078	0.052	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NEtFOSE	0.078 U	0.16	0.078	0.046	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
HFPO-DA	0.039 U	0.078	0.039	0.021	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
ADONA	0.039 U	0.078	0.039	0.026	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFEESA	0.039 U	0.078	0.039	0.017	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFMPA	0.039 U	0.078	0.039	0.027	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFMBA	0.039 U	0.078	0.039	0.031	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NFDHA	0.058 U	0.078	0.058	0.048	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
9CL-PF3ONS	0.039 U	0.078	0.039	0.023	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
11CL-PF3OUDS	0.039 U	0.078	0.039	0.026	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
3:3FTCA	0.078 U	0.16	0.078	0.062	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
5:3FTCA	0.078 U	0.16	0.078	0.063	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
7:3FTCA	0.078 U	0.16	0.078	0.048	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
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Surrogate: 13C4-PFBA	92.7%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C5-PFPEA	98.4%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C5-PFHXA	103%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C4-PFHPA	103%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C8-PFOA	103%		20-150			12/30/22	1	EPA 1633	BBL0470

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Project: Red Hill AFFF Assessment Sampling
Project Number: Red Hill AFFF Assessment Sampling
Project Manager: Watson Tanji

Reported: 01/13/2023 08:14

Sample Results

(Continued)

Sample: ADIT6-DU06-SON01MI-22DEC (Continued)
22L0126-02 (Solid)

Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result /Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
Surrogate: 13C9-PFNA	79.8%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C6-PFDA	86.5%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C7-PFUnA	98.4%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C2-PFDOA	74.6%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C2-PFTEDA	83.6%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C3-PFBS	102%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C3-PFHXS	95.9%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C8-PFOS	101%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C2-4:2FTS	130%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C2-6:2FTS	122%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C2-8:2FTS	110%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C8-PFOSA	82.2%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: D5-NETFOSA	53.0%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: D3-NMEFOSA	46.4%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: D3-NMEFOSAA	84.0%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: D5-NETFOSAA	121%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: D7-NMEFOSE	64.5%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: D9-NETFOSE	79.8%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C3-HFPO-DA	93.2%		20-150			12/30/22	1	EPA 1633	BBL0470
PFBA	5.0 J	8.2	4.1	1.1	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFPEA	6.4	4.1	4.1	0.33	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFHXA	7.7	2.1	2.1	0.28	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFHPA	2.3	2.1	1.0	0.21	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFOA	3.8	2.1	1.0	0.77	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFNA	0.53 J	2.1	1.0	0.42	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFDA	1.0 U	2.1	1.0	0.51	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFUnA	1.0 U	2.1	1.0	0.82	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFDOA	1.0 U	2.1	1.0	0.56	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFTRDA	1.5 U	2.1	1.5	1.0	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFTEDA	1.0 U	2.1	1.0	1.0	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFBS	0.55 J	2.1	1.0	0.19	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFPEs	0.39 J	2.1	1.0	0.32	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFHXS	5.3	2.1	1.0	0.16	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFHPS	0.40 J	2.1	1.0	0.26	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFOS	49	2.1	1.0	0.33	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFNS	1.0 U	2.1	1.0	0.62	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFDS	1.0 U	2.1	1.0	0.77	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFDOS	1.0 U	2.1	1.0	0.62	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
4:2FTS	4.1 U	8.2	4.1	1.5	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
6:2FTS	10	8.2	4.1	1.6	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
8:2FTS	4.1 U	8.2	4.1	0.42	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFOSA	1.0 U	2.1	1.0	0.51	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
NMeFOSA	4.1 U	8.2	4.1	2.4	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
NEtFOSA	4.1 U	8.2	4.1	2.1	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
NMeFOSAA	1.0 U	2.1	1.0	0.56	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
NEtFOSAA	1.0 U	2.1	1.0	0.56	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475

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Project: Red Hill AFFF Assessment Sampling
Project Number: Red Hill AFFF Assessment Sampling
Project Manager: Watson Tanji

Reported: 01/13/2023 08:14

Sample Results

(Continued)

Sample: ADIT6-DU06-SON01MI-22DEC (Continued)
22L0126-02 (Solid)

Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result /Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
NMeFOSE	6.2 U	8.2	6.2	5.1	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
NEtFOSE	6.2 U	8.2	6.2	5.1	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
HFPO-DA	2.1 U	4.1	2.1	0.87	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
ADONA	2.1 U	4.1	2.1	0.62	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFEESA	2.1 U	4.1	2.1	0.56	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFMPA	2.1 U	4.1	2.1	0.28	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFMBA	2.1 U	4.1	2.1	0.47	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
NFDHA	2.1 U	4.1	2.1	1.5	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
9CL-PF3ONS	2.1 U	4.1	2.1	1.1	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
11CL-PF3OUDS	2.1 U	4.1	2.1	1.1	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
3:3FTCA	4.1 U	8.2	4.1	2.9	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
5:3FTCA	4.1 U	8.2	4.1	2.3	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
7:3FTCA	4.1 U	8.2	4.1	2.8	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C4-PFBA	90.1%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C5-PFPEA	98.6%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C5-PFHXA	99.1%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C4-PFHFA	100%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C8-PFOA	94.5%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C9-PFNA	90.6%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C6-PFDA	89.8%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C7-PFUnA	96.4%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C2-PFDOA	96.6%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C2-PFTEDA	83.2%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C3-PFBS	106%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C3-PFHXS	109%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C8-PFOS	89.1%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C2-4:2FTS	144%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C2-6:2FTS	129%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C2-8:2FTS	112%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C8-PFOSA	99.4%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: D5-NETFOA	61.4%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: D3-NMEFOA	61.6%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: D3-NMEFOSAA	91.1%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: D5-NETFOSAA	109%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: D7-NMEFOSE	75.7%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: D9-NETFOSE	77.4%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C3-HFPO-DA	94.0%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475

WetLab

Analyte	Result /Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
% Solids	79.4	2.00	1.50	0.750	%	12/19/22	1	ISM02.2	BBL0347

AECOM Honolulu
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Honolulu, HI 96813

Project: Red Hill AFFF Assessment Sampling
Project Number: Red Hill AFFF Assessment Sampling
Project Manager: Watson Tanji

Reported: 01/13/2023 08:14

Sample Results (Continued)

**Sample: ADIT6-DU07-SON01MI-22DEC
22L0126-03 (Solid)**

Per- and Polyfluoroalkyl Substances

Analyte	Result /Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
PFBA	0.17 J	0.28	0.19	0.14	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFPEA	0.55	0.076	0.038	0.020	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFHXA	0.33	0.038	0.019	0.014	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFHPA	0.079	0.038	0.019	0.015	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFOA	0.067	0.038	0.028	0.020	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFNA	0.031 J	0.038	0.028	0.021	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFDA	0.028 U	0.038	0.028	0.021	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFUnA	0.019 U	0.038	0.019	0.019	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFDOA	0.028 U	0.038	0.028	0.022	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFTRDA	0.019 U	0.038	0.019	0.015	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFTEDA	0.028 U	0.038	0.028	0.024	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFBS	0.024 J	0.038	0.019	0.015	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFPEs	0.023 J	0.038	0.019	0.011	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFHXS	0.21	0.038	0.019	0.015	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFHPS	0.019 U	0.038	0.019	0.010	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFOS	1.3	0.038	0.019	0.0092	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFNS	0.019 U	0.038	0.019	0.014	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFDS	0.019 U	0.038	0.019	0.013	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFDOS	0.019 U	0.038	0.019	0.012	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
4:2FTS	0.076 U	0.15	0.076	0.043	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
6:2FTS	0.67	0.15	0.076	0.058	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
8:2FTS	0.076 U	0.15	0.076	0.048	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFOSA	0.019 U	0.038	0.019	0.012	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NMeFOSA	0.076 U	0.15	0.076	0.062	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NEtFOSA	0.076 U	0.15	0.076	0.025	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NMeFOSAA	0.019 U	0.038	0.019	0.0095	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NEtFOSAA	0.019 U	0.038	0.019	0.017	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NMeFOSE	0.076 U	0.15	0.076	0.051	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NEtFOSE	0.076 U	0.15	0.076	0.045	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
HFPO-DA	0.038 U	0.076	0.038	0.021	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
ADONA	0.038 U	0.076	0.038	0.025	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFEESA	0.038 U	0.076	0.038	0.016	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFMPA	0.038 U	0.076	0.038	0.026	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFMBA	0.038 U	0.076	0.038	0.031	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NFDHA	0.057 U	0.076	0.057	0.047	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
9CL-PF3ONS	0.038 U	0.076	0.038	0.023	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
11CL-PF3OUDS	0.038 U	0.076	0.038	0.025	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
3:3FTCA	0.076 U	0.15	0.076	0.060	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
5:3FTCA	0.076 U	0.15	0.076	0.062	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
7:3FTCA	0.076 U	0.15	0.076	0.047	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
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Surrogate: 13C4-PFBA	97.7%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C5-PFPEA	91.0%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C5-PFHXA	102%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C4-PFHPA	109%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C8-PFOA	92.6%		20-150			12/30/22	1	EPA 1633	BBL0470

AECOM Honolulu
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Project: Red Hill AFFF Assessment Sampling
Project Number: Red Hill AFFF Assessment Sampling
Project Manager: Watson Tanji

Reported: 01/13/2023 08:14

Sample Results

(Continued)

Sample: ADIT6-DU07-SON01MI-22DEC (Continued)
22L0126-03 (Solid)

Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result /Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
Surrogate: 13C9-PFNA	95.9%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C6-PFDA	90.7%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C7-PFUnA	89.3%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C2-PFDOA	95.2%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C2-PFTEDA	75.8%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C3-PFBS	104%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C3-PFHXS	101%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C8-PFOS	96.0%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C2-4:2FTS	131%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C2-6:2FTS	127%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C2-8:2FTS	110%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C8-PFOSA	71.0%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: D5-NETFOSA	56.6%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: D3-NMEFOSA	47.7%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: D3-NMEFOSAA	83.8%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: D5-NETFOSAA	104%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: D7-NMEFOSE	69.5%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: D9-NETFOSE	78.6%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C3-HFPO-DA	95.7%		20-150			12/30/22	1	EPA 1633	BBL0470
PFBA	11	8.1	4.1	1.1	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFPEA	36	4.1	4.1	0.33	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFHXA	21	2.0	2.0	0.28	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFHPA	4.9	2.0	1.0	0.21	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFOA	2.2	2.0	1.0	0.76	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFNA	1.0 U	2.0	1.0	0.42	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFDA	1.0 U	2.0	1.0	0.51	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFUnA	1.0 U	2.0	1.0	0.81	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFDOA	1.0 U	2.0	1.0	0.56	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFTRDA	1.5 U	2.0	1.5	1.0	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFTEDA	1.0 U	2.0	1.0	1.0	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFBS	1.3 J	2.0	1.0	0.19	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFPEs	1.0 U	2.0	1.0	0.32	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFHXS	5.7	2.0	1.0	0.16	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFHPS	1.0 U	2.0	1.0	0.26	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFOS	22	2.0	1.0	0.33	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFNS	1.0 U	2.0	1.0	0.61	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFDS	1.0 U	2.0	1.0	0.76	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFDOS	1.0 U	2.0	1.0	0.61	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
4:2FTS	4.1 U	8.1	4.1	1.5	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
6:2FTS	49	8.1	4.1	1.6	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
8:2FTS	4.1 U	8.1	4.1	0.42	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFOSA	1.0 U	2.0	1.0	0.51	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
NMeFOSA	4.1 U	8.1	4.1	2.4	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
NEtFOSA	4.1 U	8.1	4.1	2.1	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
NMeFOSAA	1.0 U	2.0	1.0	0.56	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
NEtFOSAA	1.0 U	2.0	1.0	0.56	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475

The contents of this report apply to the sample(s) analyzed in accordance with the chain of custody document.
No duplication of this report is allowed, except in its entirety.

AECOM Honolulu
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Project: Red Hill AFFF Assessment Sampling
Project Number: Red Hill AFFF Assessment Sampling
Project Manager: Watson Tanji

Reported: 01/13/2023 08:14

Sample Results

(Continued)

Sample: ADIT6-DU07-SON01MI-22DEC (Continued)
22L0126-03 (Solid)

Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result /Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
NMeFOSE	6.1 U	8.1	6.1	5.1	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
NEtFOSE	6.1 U	8.1	6.1	5.1	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
HFPO-DA	2.0 U	4.1	2.0	0.86	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
ADONA	2.0 U	4.1	2.0	0.61	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFEESA	2.0 U	4.1	2.0	0.56	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFMPA	2.0 U	4.1	2.0	0.27	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFMBA	2.0 U	4.1	2.0	0.46	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
NFDHA	2.0 U	4.1	2.0	1.5	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
9CL-PF3ONS	2.0 U	4.1	2.0	1.1	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
11CL-PF3OUDS	2.0 U	4.1	2.0	1.1	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
3:3FTCA	4.1 U	8.1	4.1	2.9	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
5:3FTCA	4.6 J	8.1	4.1	2.2	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
7:3FTCA	4.1 U	8.1	4.1	2.8	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
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Surrogate: 13C4-PFBA	87.4%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C5-PFPEA	89.8%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C5-PFHXA	91.7%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C4-PFHFA	101%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C8-PFOA	92.7%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C9-PFNA	98.1%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C6-PFDA	93.2%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C7-PFUnA	104%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C2-PFDOA	99.6%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C2-PFTEDA	91.9%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C3-PFBS	107%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C3-PFHXS	96.3%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C8-PFOS	103%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C2-4:2FTS	154% S2		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C2-4:2FTS	161% S2		20-150			12/31/22	10	EPA 1633 SPLP	BBL0475
Surrogate: 13C2-6:2FTS	116%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C2-8:2FTS	91.3%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C8-PFOSA	109%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: D5-NETFOSA	59.1%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: D3-NMEFOSA	61.8%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: D3-NMEFOSAA	90.1%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: D5-NETFOSAA	119%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: D7-NMEFOSE	85.1%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: D9-NETFOSE	92.6%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C3-HFPO-DA	91.6%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475

WetLab

Analyte	Result /Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
% Solids	80.6	2.00	1.50	0.750	%	12/19/22	1	ISM02.2	BBL0347

AECOM Honolulu

1001 Bishop Street, Suite 1600

Honolulu, HI 96813

Project: Red Hill AFFF Assessment Sampling

Project Number: Red Hill AFFF Assessment Sampling

Project Manager: Watson Tanji

Reported: 01/13/2023 08:14

Sample Results**(Continued)****Sample: ADIT6-DU08-SON01MI-22DEC****22L0126-04 (Solid)****Per- and Polyfluoroalkyl Substances**

Analyte	Result /Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
PFBA	0.31	0.29	0.19	0.15	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFPEA	0.91	0.078	0.039	0.021	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFHXA	0.46	0.039	0.019	0.015	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFHPA	0.26	0.039	0.019	0.015	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFOA	0.11	0.039	0.029	0.021	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFNA	0.049	0.039	0.029	0.021	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFDA	0.047	0.039	0.029	0.021	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFUnA	0.038 J	0.039	0.019	0.020	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFDOA	0.029 U	0.039	0.029	0.022	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFTRDA	0.019 U	0.039	0.019	0.016	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFTEDA	0.029 U	0.039	0.029	0.024	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFBS	0.019 U	0.039	0.019	0.016	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFPEs	0.019 U	0.039	0.019	0.011	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFHXS	0.050	0.039	0.019	0.015	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFHPS	0.019 U	0.039	0.019	0.010	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFOS	1.6	0.039	0.019	0.0094	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFNS	0.019 U	0.039	0.019	0.014	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFDS	0.019 U	0.039	0.019	0.013	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFDOS	0.019 U	0.039	0.019	0.013	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
4:2FTS	0.078 U	0.16	0.078	0.044	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
6:2FTS	0.25	0.16	0.078	0.059	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
8:2FTS	0.078 U	0.16	0.078	0.049	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFOSA	0.019 U	0.039	0.019	0.012	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NMeFOSA	0.078 U	0.16	0.078	0.064	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NEtFOSA	0.078 U	0.16	0.078	0.026	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NMeFOSAA	0.019 U	0.039	0.019	0.0097	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NEtFOSAA	0.019 U	0.039	0.019	0.017	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NMeFOSE	0.078 U	0.16	0.078	0.052	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NEtFOSE	0.078 U	0.16	0.078	0.046	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
HFPO-DA	0.039 U	0.078	0.039	0.021	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
ADONA	0.039 U	0.078	0.039	0.026	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFEESA	0.039 U	0.078	0.039	0.017	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFMPA	0.039 U	0.078	0.039	0.027	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
PFMBA	0.039 U	0.078	0.039	0.031	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
NFDHA	0.058 U	0.078	0.058	0.048	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
9CL-PF3ONS	0.039 U	0.078	0.039	0.023	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
11CL-PF3OUDS	0.039 U	0.078	0.039	0.026	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
3:3FTCA	0.078 U	0.16	0.078	0.062	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
5:3FTCA	0.14 J	0.16	0.078	0.063	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
7:3FTCA	0.078 U	0.16	0.078	0.048	ug/kg Dry	12/30/22	1	EPA 1633	BBL0470
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Surrogate: 13C4-PFBA	93.4%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C5-PFPEA	101%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C5-PFHXA	98.4%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C4-PFHPA	108%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C8-PFOA	88.2%		20-150			12/30/22	1	EPA 1633	BBL0470

AECOM Honolulu
1001 Bishop Street, Suite 1600
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Project: Red Hill AFFF Assessment Sampling
Project Number: Red Hill AFFF Assessment Sampling
Project Manager: Watson Tanji

Reported: 01/13/2023 08:14

Sample Results

(Continued)

Sample: ADIT6-DU08-SON01MI-22DEC (Continued)
22L0126-04 (Solid)

Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result /Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
Surrogate: 13C9-PFNA	87.0%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C6-PFDA	88.8%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C7-PFUnA	95.0%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C2-PFDOA	99.3%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C2-PFTEDA	74.5%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C3-PFBS	90.2%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C3-PFHXS	97.1%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C8-PFOS	98.7%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C2-4:2FTS	143%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C2-6:2FTS	116%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C2-8:2FTS	120%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C8-PFOSA	79.1%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: D5-NETFOSA	55.1%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: D3-NMEFOSA	51.5%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: D3-NMEFOSAA	105%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: D5-NETFOSAA	122%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: D7-NMEFOSE	72.2%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: D9-NETFOSE	77.9%		20-150			12/30/22	1	EPA 1633	BBL0470
Surrogate: 13C3-HFPO-DA	96.3%		20-150			12/30/22	1	EPA 1633	BBL0470
PFBA	12	8.4	4.2	1.1	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFPEA	32	4.2	4.2	0.34	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFHXA	17	2.1	2.1	0.29	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFHPA	8.9	2.1	1.0	0.21	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFOA	4.0	2.1	1.0	0.79	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFNA	1.4 J	2.1	1.0	0.43	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFDA	1.0 U	2.1	1.0	0.52	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFUnA	1.0 U	2.1	1.0	0.84	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFDOA	1.0 U	2.1	1.0	0.58	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFTRDA	1.6 U	2.1	1.6	1.0	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFTEDA	1.0 U	2.1	1.0	1.0	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFBS	0.22 J	2.1	1.0	0.19	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFPEs	1.0 U	2.1	1.0	0.33	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFHXS	2.5	2.1	1.0	0.17	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFHPS	1.0 U	2.1	1.0	0.27	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFOS	19	2.1	1.0	0.33	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFNS	1.0 U	2.1	1.0	0.63	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFDS	1.0 U	2.1	1.0	0.79	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFDOS	1.0 U	2.1	1.0	0.63	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
4:2FTS	4.2 U	8.4	4.2	1.5	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
6:2FTS	8.5	8.4	4.2	1.6	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
8:2FTS	4.2 U	8.4	4.2	0.43	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFOSA	1.0 U	2.1	1.0	0.52	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
NMeFOSA	4.2 U	8.4	4.2	2.5	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
NEtFOSA	4.2 U	8.4	4.2	2.1	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
NMeFOSAA	1.0 U	2.1	1.0	0.58	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
NEtFOSAA	1.0 U	2.1	1.0	0.58	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475

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Project Number: Red Hill AFFF Assessment Sampling
Project Manager: Watson Tanji

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Sample Results

(Continued)

Sample: ADIT6-DU08-SON01MI-22DEC (Continued)
22L0126-04 (Solid)

Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result /Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
NMeFOSE	6.3 U	8.4	6.3	5.2	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
NEtFOSE	6.3 U	8.4	6.3	5.2	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
HFPO-DA	2.1 U	4.2	2.1	0.89	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
ADONA	2.1 U	4.2	2.1	0.63	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFEESA	2.1 U	4.2	2.1	0.58	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFMPA	2.1 U	4.2	2.1	0.28	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
PFMBA	2.1 U	4.2	2.1	0.48	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
NFDHA	2.1 U	4.2	2.1	1.6	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
9CL-PF3ONS	2.1 U	4.2	2.1	1.1	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
11CL-PF3OUDS	2.1 U	4.2	2.1	1.1	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
3:3FTCA	4.2 U	8.4	4.2	3.0	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
5:3FTCA	2.6 J	8.4	4.2	2.3	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
7:3FTCA	4.2 U	8.4	4.2	2.9	ng/L	12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C4-PFBA	87.5%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C5-PFPEA	102%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C5-PFHXA	103%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C4-PFHFA	115%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C8-PFOA	104%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C9-PFNA	94.5%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C6-PFDA	92.5%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C7-PFUnA	98.5%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C2-PFDOA	97.5%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C2-PFTEDA	81.9%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C3-PFBS	104%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C3-PFHXS	99.2%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C8-PFOS	95.7%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C2-4:2FTS	164% S2		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C2-4:2FTS	134%		20-150			12/31/22	10	EPA 1633 SPLP	BBL0475
Surrogate: 13C2-6:2FTS	130%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C2-8:2FTS	96.5%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C8-PFOSA	101%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: D5-NETFOSA	70.2%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: D3-NMEFOSA	68.5%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: D3-NMEFOSAA	91.1%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: D5-NETFOSAA	105%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: D7-NMEFOSE	91.0%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: D9-NETFOSE	95.1%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475
Surrogate: 13C3-HFPO-DA	101%		20-150			12/31/22	1	EPA 1633 SPLP	BBL0475

WetLab

Analyte	Result /Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
% Solids	82.0	2.00	1.50	0.750	%	12/19/22	1	ISM02.2	BBL0347

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Project Manager: Watson Tanji

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Quality Control

Per- and Polyfluoroalkyl Substances

Analyte	Result/Qual	LOQ	LOD	MDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BBL0470 - EPA 1633

Blank (BBL0470-BLK1)

Prepared: 12/27/22 11:43 Analyzed: 12/30/22 19:43

	ug/kg Dry			
PFBA	0.20 U	0.30	0.20	0.15
PFPEA	0.040 U	0.080	0.040	0.022
PFHXA	0.020 U	0.040	0.020	0.015
PFHPA	0.020 U	0.040	0.020	0.015
PFOA	0.030 U	0.040	0.030	0.021
PFNA	0.030 U	0.040	0.030	0.022
PFDA	0.030 U	0.040	0.030	0.022
PFUnA	0.020 U	0.040	0.020	0.020
PFDOA	0.030 U	0.040	0.030	0.023
PFTRDA	0.020 U	0.040	0.020	0.016
PFTEDA	0.030 U	0.040	0.030	0.025
PFBS	0.020 U	0.040	0.020	0.016
PFPEs	0.020 U	0.040	0.020	0.012
PFHXS	0.020 U	0.040	0.020	0.015
PFHPS	0.020 U	0.040	0.020	0.011
PFOS	0.020 U	0.040	0.020	0.0097
PFNS	0.020 U	0.040	0.020	0.015
PFDS	0.020 U	0.040	0.020	0.014
PFDOS	0.020 U	0.040	0.020	0.013
4:2FTS	0.080 U	0.16	0.080	0.045
6:2FTS	0.080 U	0.16	0.080	0.061
8:2FTS	0.080 U	0.16	0.080	0.051
PFOSA	0.020 U	0.040	0.020	0.012
NMeFOSA	0.080 U	0.16	0.080	0.066
NEtFOSA	0.080 U	0.16	0.080	0.027
NMeFOSAA	0.020 U	0.040	0.020	0.010
NEtFOSAA	0.020 U	0.040	0.020	0.018
NMeFOSE	0.080 U	0.16	0.080	0.054
NEtFOSE	0.080 U	0.16	0.080	0.047
HFPO-DA	0.040 U	0.080	0.040	0.022
ADONA	0.040 U	0.080	0.040	0.026
PFEESA	0.040 U	0.080	0.040	0.017
PFMPA	0.040 U	0.080	0.040	0.028
PFMBA	0.040 U	0.080	0.040	0.032
NFDHA	0.060 U	0.080	0.060	0.049
9CL-PF3ONS	0.040 U	0.080	0.040	0.024
11CL-PF3OUDS	0.040 U	0.080	0.040	0.027
3:3FTCA	0.080 U	0.16	0.080	0.064
5:3FTCA	0.080 U	0.16	0.080	0.065
7:3FTCA	0.080 U	0.16	0.080	0.050

Surrogates

13C4-PFBA	3.32	3.20	104	20-150
13C5-PFPEA	1.58	1.60	98.7	20-150
13C5-PFHXA	0.810	0.800	101	20-150
13C4-PFHPA	0.852	0.800	106	20-150
13C8-PFOA	0.785	0.800	98.1	20-150

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Quality Control (Continued)

Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result/Qual	LOQ	LOD	MDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BBL0470 - EPA 1633 (Continued)

Blank (BBL0470-BLK1)

Prepared: 12/27/22 11:43 Analyzed: 12/30/22 19:43

ug/kg Dry

Surrogates

13C9-PFNA	0.427				0.400		107	20-150
13C6-PFDA	0.376				0.400		94.1	20-150
13C7-PFUnA	0.408				0.400		102	20-150
13C2-PFDOA	0.413				0.400		103	20-150
13C2-PFTEDA	0.365				0.400		91.1	20-150
13C3-PFBS	0.873				0.800		109	20-150
13C3-PFHXS	0.794				0.800		99.2	20-150
13C8-PFOS	0.727				0.800		90.9	20-150
13C2-4:2FTS	2.56 S2				1.60		160	20-150
13C2-6:2FTS	2.14				1.60		134	20-150
13C2-8:2FTS	1.64				1.60		103	20-150
13C8-PFOSA	0.624				0.800		78.0	20-150
D5-NETFOA	0.0426 S1				0.800		5.33	20-150
D3-NMEFOA	0.0379 S1				0.800		4.74	20-150
D3-NMEFOA	1.66				1.60		104	20-150
D5-NETFOA	1.79				1.60		112	20-150
D7-NMEFOE	3.97				8.00		49.6	20-150
D9-NETFOE	5.08				8.00		63.5	20-150
13C3-HFPO-DA	3.16				3.20		98.8	20-150

LCS (BBL0470-BS1)

Prepared: 12/27/22 11:43 Analyzed: 12/30/22 19:56

ug/kg Dry

PFBA	1.59				1.60		99.3	40-150
PFPEA	0.797				0.800		99.6	40-150
PFHXA	0.378				0.400		94.5	40-150
PFHPA	0.383				0.400		95.8	40-150
PFOA	0.370				0.400		92.5	40-150
PFNA	0.397				0.400		99.2	40-150
PFDA	0.409				0.400		102	40-150
PFUnA	0.376				0.400		94.1	40-150
PFDOA	0.388				0.400		96.9	40-150
PFTRDA	0.389				0.400		97.3	40-150
PFTEDA	0.394				0.400		98.6	40-150
PFBS	0.336				0.354		94.9	40-150
PFPEs	0.381				0.376		101	40-150
PFHXS	0.350				0.366		95.5	40-150
PFHPS	0.357				0.382		93.6	40-150
PFOS	0.370				0.372		99.5	40-150
PFNS	0.372				0.384		96.9	40-150
PFDS	0.347				0.386		90.0	40-150
PFDOS	0.444				0.388		114	40-150
4:2FTS	1.63				1.50		109	40-150
6:2FTS	1.45				1.52		95.2	40-150
8:2FTS	1.55				1.54		101	40-150
PFOSA	0.381				0.400		95.2	40-150

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Quality Control (Continued)

Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result/Qual	LOQ	LOD	MDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BBL0470 - EPA 1633 (Continued)

LCS (BBL0470-BS1)

Prepared: 12/27/22 11:43 Analyzed: 12/30/22 19:56

	ug/kg Dry									
NMeFOSA	1.21				1.60		75.8	40-150		
NEtFOSA	1.62				1.60		101	40-150		
NMeFOSAA	0.405				0.400		101	40-150		
NEtFOSAA	0.429				0.400		107	40-150		
NMeFOSE	1.67				1.60		104	40-150		
NEtFOSE	1.48				1.60		92.6	40-150		
HFPO-DA	0.747				0.800		93.4	40-150		
ADONA	0.805				0.756		107	40-150		
PFEESA	0.701				0.712		98.4	40-150		
PFMPA	0.717				0.800		89.6	40-150		
PFMBA	0.811				0.800		101	40-150		
NFDHA	0.756				0.800		94.5	40-150		
9CL-PF3ONS	0.774				0.748		104	40-150		
11CL-PF3OUDS	0.816				0.756		108	40-150		
3:3FTCA	1.48				1.60		92.6	40-150		
5:3FTCA	1.51				1.60		94.1	40-150		
7:3FTCA	1.09				1.60		68.4	40-150		
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Surrogates										
13C4-PFBA	3.21				3.20		100	20-150		
13C5-PFPEA	1.64				1.60		103	20-150		
13C5-PFHXA	0.859				0.800		107	20-150		
13C4-PFHFA	0.845				0.800		106	20-150		
13C8-PFOA	0.853				0.800		107	20-150		
13C9-PFNA	0.358				0.400		89.6	20-150		
13C6-PFDA	0.415				0.400		104	20-150		
13C7-PFUnA	0.460				0.400		115	20-150		
13C2-PFDOA	0.422				0.400		106	20-150		
13C2-PFTEDA	0.363				0.400		90.8	20-150		
13C3-PFBS	0.942				0.800		118	20-150		
13C3-PFHXS	0.843				0.800		105	20-150		
13C8-PFOS	0.810				0.800		101	20-150		
13C2-4:2FTS	2.31				1.60		144	20-150		
13C2-6:2FTS	2.14				1.60		133	20-150		
13C2-8:2FTS	1.62				1.60		101	20-150		
13C8-PFOSA	0.686				0.800		85.7	20-150		
D5-NETFOSA	0.0577 S1				0.800		7.21	20-150		
D3-NMEFOSA	0.0528 S1				0.800		6.60	20-150		
D3-NMEFOSAA	1.79				1.60		112	20-150		
D5-NETFOSAA	1.71				1.60		107	20-150		
D7-NMEFOSE	4.19				8.00		52.4	20-150		
D9-NETFOSE	4.80				8.00		60.0	20-150		
13C3-HFPO-DA	3.19				3.20		99.8	20-150		

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Quality Control (Continued)

Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result/Qual	LOQ	LOD	MDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BBL0470 - EPA 1633 (Continued)

MRL Check (BBL0470-MRL1)

Prepared: 12/27/22 11:43 Analyzed: 12/30/22 20:09

	ug/kg Dry								
PFBA	0.197 J				0.160		123	40-130	
PFPEA	0.0829				0.0800		104	40-130	
PFHXA	0.0472				0.0400		118	40-130	
PFHPA	0.0392 J				0.0400		97.9	40-130	
PFOA	0.0447				0.0400		112	40-130	
PFNA	0.0455				0.0400		114	40-130	
PFDA	0.0423				0.0400		106	40-130	
PFUnA	0.0481				0.0400		120	40-130	
PFDOA	0.0464				0.0400		116	40-130	
PFTRDA	0.0498				0.0400		125	40-130	
PFTEDA	0.0479				0.0400		120	40-130	
PFBS	0.0378 J				0.0354		107	40-130	
PFPEs	0.0403				0.0376		107	40-130	
PFHXS	0.0405				0.0366		111	40-130	
PFHPS	0.0408				0.0382		107	40-130	
PFOS	0.0493 BS2				0.0372		132	40-130	
PFNS	0.0387 J				0.0384		101	40-130	
PFDS	0.0366 J				0.0386		94.7	40-130	
PFDOS	0.0455				0.0388		117	40-130	
4:2FTS	0.142 J				0.150		94.8	40-130	
6:2FTS	0.157 J				0.152		103	40-130	
8:2FTS	0.138 J				0.154		90.0	40-130	
PFOSA	0.0395 J				0.0400		98.8	40-130	
NMeFOSA	0.0996 J				0.160		62.3	40-130	
NetFOSA	0.185				0.160		116	40-130	
NMeFOSAA	0.0447				0.0400		112	40-130	
NetFOSAA	0.0422				0.0400		105	40-130	
NMeFOSE	0.171				0.160		107	40-130	
NetFOSE	0.188				0.160		118	40-130	
HFPO-DA	0.0853				0.0800		107	40-130	
ADONA	0.0868				0.0756		115	40-130	
PFEESA	0.0681 J				0.0712		95.7	40-130	
PFMPA	0.0752 J				0.0800		94.0	40-130	
PFMBA	0.0801				0.0800		100	40-130	
NFDHA	0.0888				0.0800		111	40-130	
9CL-PF3ONS	0.0715 J				0.0748		95.6	40-130	
11CL-PF3OUDS	0.0897				0.0756		119	40-130	
3:3FTCA	0.129 J				0.160		80.8	40-130	
5:3FTCA	0.143 J				0.160		89.3	40-130	
7:3FTCA	0.119 J				0.160		74.2	40-130	

Surrogates

13C4-PFBA	3.28	3.20	103	20-150
13C5-PFPEA	1.61	1.60	100	20-150
13C5-PFHXA	0.818	0.800	102	20-150
13C4-PFHPA	0.813	0.800	102	20-150
13C8-PFOA	0.823	0.800	103	20-150

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Quality Control (Continued)

Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result/Qual	LOQ	LOD	MDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BBL0470 - EPA 1633 (Continued)

MRL Check (BBL0470-MRL1)

Prepared: 12/27/22 11:43 Analyzed: 12/30/22 20:09

ug/kg Dry

Surrogates

13C9-PFNA	0.381				0.400		95.3	20-150
13C6-PFDA	0.340				0.400		85.1	20-150
13C7-PFUnA	0.331				0.400		82.9	20-150
13C2-PFDOA	0.349				0.400		87.3	20-150
13C2-PFTEDA	0.324				0.400		81.0	20-150
13C3-PFBS	0.812				0.800		102	20-150
13C3-PFHXS	0.755				0.800		94.4	20-150
13C8-PFOS	0.727				0.800		90.8	20-150
13C2-4:2FTS	2.27				1.60		142	20-150
13C2-6:2FTS	1.87				1.60		117	20-150
13C2-8:2FTS	1.72				1.60		108	20-150
13C8-PFOA	0.631				0.800		78.9	20-150
D5-NETFOA	0.0656	S1			0.800		8.20	20-150
D3-NMEFOA	0.0609	S1			0.800		7.61	20-150
D3-NMEFOA	1.56				1.60		97.6	20-150
D5-NETFOA	1.73				1.60		108	20-150
D7-NMEFOE	4.66				8.00		58.3	20-150
D9-NETFOE	4.71				8.00		58.8	20-150
13C3-HFPO-DA	3.09				3.20		96.7	20-150

Matrix Spike (BBL0470-MS1)

Source: 22L0126-01

Prepared: 12/27/22 11:43 Analyzed: 12/30/22 20:21

ug/kg Dry

PFBA	2.10				1.60	0.339	110	40-150
PFPEA	2.04				0.800	0.894	144	40-150
PFHXA	1.65	MS2			0.400	0.930	181	40-150
PFHPA	0.697				0.400	0.225	118	40-150
PFOA	0.525				0.400	0.0656	115	40-150
PFNA	0.454				0.400	0.0300 U	114	40-150
PFDA	0.479				0.400	0.0300 U	120	40-150
PFUnA	0.470				0.400	0.0200 U	118	40-150
PFDOA	0.414				0.400	0.0300 U	103	40-150
PFTRDA	0.454				0.400	0.0200 U	113	40-150
PFTEDA	0.346				0.400	0.0300 U	86.5	40-150
PFBS	0.415				0.354	0.0163	113	40-150
PFPEs	0.453				0.376	0.0177	116	40-150
PFHXS	0.683				0.366	0.203	131	40-150
PFHPS	0.375				0.382	0.0200 U	98.3	40-150
PFOS	1.23				0.372	0.723	137	40-150
PFNS	0.402				0.384	0.0200 U	105	40-150
PFDS	0.407				0.386	0.0200 U	106	40-150
PFDOS	0.413				0.388	0.0200 U	106	40-150
4:2FTS	1.86				1.50	0.0800 U	124	40-150
6:2FTS	13.8	MS2			1.52	11.4	156	40-150
8:2FTS	1.73				1.54	0.0800 U	113	40-150
PFOA	0.400				0.400	0.0200 U	100	40-150

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Project: Red Hill AFFF Assessment Sampling
Project Number: Red Hill AFFF Assessment Sampling
Project Manager: Watson Tanji

Reported: 01/13/2023 08:14

Quality Control (Continued)

Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result/Qual	LOQ	LOD	MDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BBL0470 - EPA 1633 (Continued)

Matrix Spike (BBL0470-MS1)

Source: 22L0126-01

Prepared: 12/27/22 11:43 Analyzed: 12/30/22 20:21

ug/kg Dry

NMeFOSA	1.76	1.60	0.0800 U	110	40-150
NEtFOSA	1.72	1.60	0.0800 U	108	40-150
NMeFOSAA	0.375	0.400	0.0200 U	93.7	40-150
NEtFOSAA	0.416	0.400	0.0200 U	104	40-150
NMeFOSE	1.66	1.60	0.0800 U	104	40-150
NEtFOSE	2.03	1.60	0.0800 U	127	40-150
HFPO-DA	0.799	0.800	0.0400 U	99.9	40-150
ADONA	0.870	0.756	0.0400 U	115	40-150
PFEESA	0.800	0.712	0.0400 U	112	40-150
PFMPA	0.783	0.800	0.0400 U	97.9	40-150
PFMBA	0.851	0.800	0.0400 U	106	40-150
NFDHA	0.828	0.800	0.0600 U	104	40-150
9CL-PF3ONS	0.852	0.748	0.0400 U	114	40-150
11CL-PF3OUDS	0.878	0.756	0.0400 U	116	40-150
3:3FTCA	1.38	1.60	0.0800 U	86.1	40-150
5:3FTCA	1.76	1.60	0.140	101	40-150
7:3FTCA	1.22	1.60	0.0800 U	76.3	40-150

Surrogates

13C4-PFBA	3.21	3.20	100	20-150
13C5-PFPEA	1.50	1.60	93.8	20-150
13C5-PFHXA	0.722	0.800	90.3	20-150
13C4-PFHXA	0.745	0.800	93.1	20-150
13C8-PFOA	0.795	0.800	99.3	20-150
13C9-PFNA	0.387	0.400	96.6	20-150
13C6-PFDA	0.405	0.400	101	20-150
13C7-PFUnA	0.407	0.400	102	20-150
13C2-PFDOA	0.433	0.400	108	20-150
13C2-PFTEDA	0.427	0.400	107	20-150
13C3-PFBS	0.783	0.800	97.9	20-150
13C3-PFHXS	0.724	0.800	90.5	20-150
13C8-PFOS	0.812	0.800	101	20-150
13C2-4:2FTS	2.12	1.60	133	20-150
13C2-6:2FTS	1.81	1.60	113	20-150
13C2-8:2FTS	1.17	1.60	73.2	20-150
13C8-PFOSA	0.700	0.800	87.5	20-150
D5-NETFOSA	0.489	0.800	61.1	20-200
D3-NMEFOSA	0.426	0.800	53.3	20-200
D3-NMEFOSAA	1.59	1.60	99.5	20-150
D5-NETFOSAA	1.72	1.60	107	20-150
D7-NMEFOSE	6.56	8.00	82.0	20-200
D9-NETFOSE	7.07	8.00	88.4	20-200
13C3-HFPO-DA	2.94	3.20	91.9	20-150

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Project Manager: Watson Tanji

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Quality Control (Continued)

Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result/Qual	LOQ	LOD	MDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BBL0470 - EPA 1633 (Continued)

Matrix Spike Dup (BBL0470-MSD1)

Source: 22L0126-01

Prepared: 12/27/22 11:43 Analyzed: 12/30/22 20:34

ug/kg Dry

PFBA	2.60				1.56	0.339	145	40-150	21.6	30
PFPEA	1.76				0.780	0.894	111	40-150	14.8	30
PFHXA	1.66 MS2				0.390	0.930	188	40-150	0.632	30
PFHPA	0.702				0.390	0.225	122	40-150	0.732	30
PFOA	0.603				0.390	0.0656	138	40-150	13.8	30
PFNA	0.451				0.390	0.0300 U	116	40-150	0.668	30
PFDA	0.410				0.390	0.0300 U	105	40-150	15.6	30
PFOA	0.453				0.390	0.0200 U	116	40-150	3.80	30
PFDOA	0.498				0.390	0.0300 U	128	40-150	18.6	30
PFTDA	1.22 MS2, MS3				0.390	0.0200 U	313	40-150	91.5	30
PFTDA	0.485 MS3				0.390	0.0300 U	125	40-150	33.6	30
PFBS	0.368				0.345	0.0163	102	40-150	12.1	30
PFPEA	0.342				0.366	0.0177	88.6	40-150	27.8	30
PFHXS	0.490 MS3				0.357	0.203	80.4	40-150	32.9	30
PFHPS	0.279				0.372	0.0200 U	74.8	40-150	29.6	30
PFOS	1.42 MS2				0.363	0.723	193	40-150	14.1	30
PFNS	0.750 MS2, MS3				0.374	0.0200 U	200	40-150	60.4	30
PFDS	1.42 MS2, MS3				0.376	0.0200 U	378	40-150	111	30
PFDOS	5.33 MS2, MS3				0.378	0.0200 U	1410	40-150	171	30
4:2FTS	1.84				1.46	0.0800 U	126	40-150	1.08	30
6:2FTS	16.9 MS2				1.48	11.4	367	40-150	20.0	30
8:2FTS	1.06 MS3				1.50	0.0800 U	70.9	40-150	48.2	30
PFOSA	0.422				0.390	0.0200 U	108	40-150	5.35	30
NMeFOSA	1.49				1.56	0.0800 U	95.8	40-150	16.6	30
NEtFOSA	1.77				1.56	0.0800 U	114	40-150	3.02	30
NMeFOSAA	0.501				0.390	0.0200 U	129	40-150	28.8	30
NEtFOSAA	0.264 MS3				0.390	0.0200 U	67.6	40-150	44.9	30
NMeFOSE	1.88				1.56	0.0800 U	120	40-150	12.0	30
NEtFOSE	2.02				1.56	0.0800 U	130	40-150	0.478	30
HFPO-DA	0.859				0.780	0.0400 U	110	40-150	7.22	30
ADONA	0.728				0.737	0.0400 U	98.8	40-150	17.7	30
PFEESA	0.687				0.694	0.0400 U	99.0	40-150	15.1	30
PFMPA	0.673				0.780	0.0400 U	86.3	40-150	15.1	30
PFMBA	0.810				0.780	0.0400 U	104	40-150	4.96	30
NFDHA	0.585 MS3				0.780	0.0600 U	75.0	40-150	34.5	30
9CL-PF3ONS	1.68 MS2, MS3				0.729	0.0400 U	230	40-150	65.3	30
11CL-PF3OUDS	5.03 MS2, MS3				0.737	0.0400 U	682	40-150	140	30
3:3FTCA	0.966 MS3				1.56	0.0800 U	62.0	40-150	35.1	30
5:3FTCA	2.10				1.56	0.140	126	40-150	17.7	30
7:3FTCA	1.70 MS3				1.56	0.0800 U	109	40-150	32.8	30

Surrogates

13C4-PFBA	0.0536	3.12	1.72	20-150
13C5-PFPEA	0.0242	1.56	1.55	20-150
13C5-PFHXA	0.0129	0.780	1.65	20-150
13C4-PFHPA	0.0144	0.780	1.85	20-150
13C8-PFOA	0.0158	0.780	2.02	20-150

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Quality Control (Continued)

Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result/Qual	LOQ	LOD	MDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BBL0470 - EPA 1633 (Continued)

Matrix Spike Dup (BBL0470-MSD1)

Source: 22L0126-01

Prepared: 12/27/22 11:43 Analyzed: 12/30/22 20:34

ug/kg Dry

Surrogates

13C9-PFNA	0.00840				0.390		2.16	20-150
13C6-PFDA	0.0145				0.390		3.71	20-150
13C7-PFUnA	0.0268				0.390		6.87	20-150
13C2-PFDOA	0.0368				0.390		9.43	20-150
13C2-PFTEDA	0.123				0.390		31.6	20-150
13C3-PFBS	0.0122				0.780		1.57	20-150
13C3-PFHXS	0.0157				0.780		2.01	20-150
13C8-PFOS	0.0201				0.780		2.58	20-150
13C2-4:2FTS	0.0320				1.56		2.05	20-150
13C2-6:2FTS	0.0348				1.56		2.23	20-150
13C2-8:2FTS	0.0572				1.56		3.67	20-150
13C8-PFOA	0.0201				0.780		2.58	20-150
D5-NETFOA	0.0348				0.780		4.46	20-200
D3-NMEFOA	0.0298				0.780		3.83	20-200
D3-NMEFOA	0.0490				1.56		3.14	20-150
D5-NETFOA	0.0652				1.56		4.18	20-150
D7-NMEFOE	0.971				7.80		12.5	20-200
D9-NETFOE	1.23				7.80		15.8	20-200
13C3-HFPO-DA	0.0453				3.12		1.45	20-150

Batch: BBL0475 - PFAS Leachates

Blank (BBL0475-BLK1)

Prepared: 12/27/22 13:57 Analyzed: 12/30/22 22:56

	ng/L			
PFBA	4.0 U	8.0	4.0	1.0
PFPEA	4.0 U	4.0	4.0	0.32
PFHXA	2.0 U	2.0	2.0	0.28
PFHPA	1.0 U	2.0	1.0	0.20
PFOA	1.0 U	2.0	1.0	0.75
PFNA	1.0 U	2.0	1.0	0.41
PFDA	1.0 U	2.0	1.0	0.50
PFUnA	1.0 U	2.0	1.0	0.80
PFDOA	1.0 U	2.0	1.0	0.55
PFTRDA	1.5 U	2.0	1.5	1.0
PFTEDA	1.0 U	2.0	1.0	1.0
PFBS	1.0 U	2.0	1.0	0.18
PFPEs	1.0 U	2.0	1.0	0.32
PFHXS	1.0 U	2.0	1.0	0.16
PFHPS	1.0 U	2.0	1.0	0.26
PFOS	1.0 U	2.0	1.0	0.32
PFNS	1.0 U	2.0	1.0	0.60
PFDS	1.0 U	2.0	1.0	0.75
PFDOS	1.0 U	2.0	1.0	0.60
4:2FTS	4.0 U	8.0	4.0	1.4
6:2FTS	4.0 U	8.0	4.0	1.6

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Quality Control (Continued)

Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result/Qual	LOQ	LOD	MDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BBL0475 - PFAS Leachates (Continued)

Blank (BBL0475-BLK1)

Prepared: 12/27/22 13:57 Analyzed: 12/30/22 22:56

	ng/L									
8:2FTS	4.0 U	8.0	4.0	0.41						
PFOSA	1.0 U	2.0	1.0	0.50						
NMeFOSA	4.0 U	8.0	4.0	2.4						
NEtFOSA	4.0 U	8.0	4.0	2.0						
NMeFOSAA	1.0 U	2.0	1.0	0.55						
NEtFOSAA	1.0 U	2.0	1.0	0.55						
NMeFOSE	6.0 U	8.0	6.0	5.0						
NEtFOSE	6.0 U	8.0	6.0	5.0						
HFPO-DA	2.0 U	4.0	2.0	0.85						
ADONA	2.0 U	4.0	2.0	0.60						
PFEESA	2.0 U	4.0	2.0	0.55						
PFMPA	2.0 U	4.0	2.0	0.27						
PFMBA	2.0 U	4.0	2.0	0.46						
NFDHA	2.0 U	4.0	2.0	1.5						
9CL-PF3ONS	2.0 U	4.0	2.0	1.0						
11CL-PF3OUDS	2.0 U	4.0	2.0	1.0						
3:3FTCA	4.0 U	8.0	4.0	2.8						
5:3FTCA	4.0 U	8.0	4.0	2.2						
7:3FTCA	4.0 U	8.0	4.0	2.8						

Surrogates

13C4-PFBA	291			320		91.0	20-150
13C5-PFPEA	166			160		104	20-150
13C5-PFHXA	87.3			80.0		109	20-150
13C4-PFHFA	90.9			80.0		114	20-150
13C8-PFOA	80.6			80.0		101	20-150
13C9-PFNA	39.4			40.0		98.5	20-150
13C6-PFDA	35.1			40.0		87.6	20-150
13C7-PFUnA	37.4			40.0		93.5	20-150
13C2-PFDOA	39.2			40.0		98.0	20-150
13C2-PFTEDA	39.4			40.0		98.5	20-150
13C3-PFBS	90.2			80.0		113	20-150
13C3-PFHXS	83.6			80.0		105	20-150
13C8-PFOS	90.6			80.0		113	20-150
13C2-4:2FTS	247 S2			160		154	20-150
13C2-6:2FTS	217			160		135	20-150
13C2-8:2FTS	164			160		103	20-150
13C8-PFOSA	98.8			80.0		124	20-150
D5-NETFOSA	50.8			80.0		63.5	20-150
D3-NMEFOSA	59.3			80.0		74.1	20-150
D3-NMEFOSAA	166			160		104	20-150
D5-NETFOSAA	185			160		116	20-150
D7-NMEFOSE	844			800		105	20-150
D9-NETFOSE	939			800		117	20-150
13C3-HFPO-DA	330			320		103	20-150

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Quality Control (Continued)

Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result/Qual	LOQ	LOD	MDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch: BBL0475 - PFAS Leachates (Continued)

LCS (BBL0475-BS1)

Prepared: 12/27/22 13:57 Analyzed: 12/28/22 00:02

	ng/L									
PFBA	98.1				80.0		123	40-150		
PFPEA	46.2				40.0		115	40-150		
PFHXA	21.3				20.0		107	40-150		
PFHPA	24.6				20.0		123	40-150		
PFOA	26.9				20.0		134	40-150		
PFNA	26.9				20.0		134	40-150		
PFDA	22.8 IR2				20.0		114	40-150		
PFUnA	24.7				20.0		123	40-150		
PFDOA	22.1				20.0		110	40-150		
PFTRDA	23.1				20.0		115	40-150		
PFTEDA	23.1				20.0		115	40-150		
PFBS	20.2				17.7		114	40-150		
PFPEs	25.7				18.8		137	40-150		
PFHXS	23.0				18.3		126	40-150		
PFHPS	20.8				19.1		109	40-150		
PFOS	18.9				18.6		102	40-150		
PFNS	21.8				19.2		113	40-150		
PFDS	21.4				19.3		111	40-150		
PFDOS	23.3				19.4		120	40-150		
4:2FTS	90.3				75.0		120	40-150		
6:2FTS	104				76.0		137	40-150		
8:2FTS	99.3				76.8		129	40-150		
PFOSA	24.0				20.0		120	40-150		
NMeFOSA	100				80.0		125	40-150		
NEtFOSA	98.7				80.0		123	40-150		
NMeFOSAA	20.2				20.0		101	40-150		
NEtFOSAA	22.2				20.0		111	40-150		
NMeFOSE	91.0				80.0		114	40-150		
NEtFOSE	92.3				80.0		115	40-150		
HFPO-DA	46.2				40.0		115	40-150		
ADONA	43.3				37.8		115	40-150		
PFEESA	36.5				35.6		103	40-150		
PFMPA	48.3				40.0		121	40-150		
PFMBA	49.1				40.0		123	40-150		
NFDHA	44.7				40.0		112	40-150		
9CL-PF3ONS	51.8				37.4		139	40-150		
11CL-PF3OUDS	48.5				37.8		128	40-150		
3:3FTCA	87.8				80.0		110	40-150		
5:3FTCA	81.8				80.0		102	40-150		
7:3FTCA	89.7				80.0		112	40-150		

Surrogates

13C4-PFBA	125	160	78.2	20-150
13C5-PFPEA	61.9	80.0	77.3	20-150
13C5-PFHXA	35.3	40.0	88.3	20-150
13C4-PFHPA	31.1	40.0	77.7	20-150
13C8-PFOA	28.9	40.0	72.2	20-150

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Quality Control (Continued)

Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result/Qual	LOQ	LOD	MDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
---------	-------------	-----	-----	-----	-------------	---------------	------	-------------	-----	-----------

Batch: BBL0475 - PFAS Leachates (Continued)

LCS (BBL0475-BS1)

Prepared: 12/27/22 13:57 Analyzed: 12/28/22 00:02

ng/L

Surrogates

13C9-PFNA	15.2	20.0	75.9	20-150
13C6-PFDA	13.6	20.0	67.8	20-150
13C7-PFUnA	16.2	20.0	80.8	20-150
13C2-PFDOA	16.1	20.0	80.6	20-150
13C2-PFTEDA	15.1	20.0	75.7	20-150
13C3-PFBS	32.6	40.0	81.6	20-150
13C3-PFHXS	30.4	40.0	76.0	20-150
13C8-PFOS	33.9	40.0	84.6	20-150
13C2-4:2FTS	70.1	80.0	87.6	20-150
13C2-6:2FTS	63.2	80.0	78.9	20-150
13C2-8:2FTS	74.2	80.0	92.8	20-150
13C8-PFOSA	25.9	40.0	64.7	20-150
D5-NETFOA	16.5	40.0	41.3	20-150
D3-NMEFOA	15.7	40.0	39.3	20-150
D3-NMEFOSAA	70.9	80.0	88.6	20-150
D5-NETFOSAA	74.8	80.0	93.4	20-150
D7-NMEFOSE	241	400	60.2	20-150
D9-NETFOSE	260	400	65.0	20-150
13C3-HFPO-DA	137	160	85.3	20-150

MRL Check (BBL0475-MRL1)

Prepared: 12/27/22 13:57 Analyzed: 12/28/22 00:15

ng/L

PFBA	11.7	8.00	147	0-200
PFPEA	4.91	4.00	123	0-200
PFHXA	2.47	2.00	124	0-200
PFHPA	2.86	2.00	143	0-200
PFOA	2.74	2.00	137	0-200
PFNA	2.06	2.00	103	0-200
PFDA	2.84	2.00	142	0-200
PFUnA	2.69	2.00	134	0-200
PFDOA	2.48	2.00	124	0-200
PFTRDA	2.30 IR2	2.00	115	0-200
PFTEDA	2.42	2.00	121	0-200
PFBS	2.18	1.77	123	0-200
PFPEs	2.43	1.88	129	0-200
PFHXS	2.13	1.83	117	0-200
PFHPS	2.06	1.91	108	0-200
PFOS	2.35	1.86	126	0-200
PFNS	2.16	1.92	113	0-200
PFDS	2.05	1.93	106	0-200
PFDOS	2.68	1.94	138	0-200
4:2FTS	9.70	7.50	129	0-200
6:2FTS	8.72	7.60	115	0-200
8:2FTS	8.76	7.68	114	0-200
PFOSA	2.33	2.00	117	0-200

AECOM Honolulu
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Project: Red Hill AFFF Assessment Sampling
Project Number: Red Hill AFFF Assessment Sampling
Project Manager: Watson Tanji

Reported: 01/13/2023 08:14

Quality Control (Continued)

Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result/Qual	LOQ	LOD	MDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
---------	-------------	-----	-----	-----	-------------	---------------	------	-------------	-----	-----------

Batch: BBL0475 - PFAS Leachates (Continued)

MRL Check (BBL0475-MRL1)

Prepared: 12/27/22 13:57 Analyzed: 12/28/22 00:15

	ng/L									
NMeFOSA	9.60				8.00		120	0-200		
NEtFOSA	9.81				8.00		123	0-200		
NMeFOSAA	2.87				2.00		144	0-200		
NEtFOSAA	2.08				2.00		104	0-200		
NMeFOSE	8.58				8.00		107	0-200		
NEtFOSE	9.35				8.00		117	0-200		
HFPO-DA	5.77				4.00		144	0-200		
ADONA	4.38				3.78		116	0-200		
PFEESA	3.83 J				3.56		108	0-200		
PFMPA	4.47				4.00		112	0-200		
PFMBA	4.69				4.00		117	0-200		
NFDHA	4.69				4.00		117	0-200		
9CL-PF3ONS	4.60				3.74		123	0-200		
11CL-PF3OUDS	3.63 J				3.78		96.1	0-200		
3:3FTCA	9.03				8.00		113	0-200		
5:3FTCA	10.5				8.00		131	0-200		
7:3FTCA	9.34				8.00		117	0-200		

Surrogates

13C4-PFBA	128				160		79.9	20-150		
13C5-PFPEA	60.6				80.0		75.7	20-150		
13C5-PFHXA	32.8				40.0		82.0	20-150		
13C4-PFHFA	32.7				40.0		81.8	20-150		
13C8-PFOA	33.1				40.0		82.8	20-150		
13C9-PFNA	16.9				20.0		84.7	20-150		
13C6-PFDA	16.3				20.0		81.4	20-150		
13C7-PFUnA	19.0				20.0		94.9	20-150		
13C2-PFDOA	18.1				20.0		90.5	20-150		
13C2-PFTEDA	21.0				20.0		105	20-150		
13C3-PFBS	31.9				40.0		79.7	20-150		
13C3-PFHXS	31.6				40.0		78.9	20-150		
13C8-PFOS	32.4				40.0		80.9	20-150		
13C2-4:2FTS	59.3				80.0		74.2	20-150		
13C2-6:2FTS	68.8				80.0		86.0	20-150		
13C2-8:2FTS	66.4				80.0		83.0	20-150		
13C8-PFOA	25.5				40.0		63.7	20-150		
D5-NETFOA	16.8				40.0		42.1	20-150		
D3-NMEFOA	15.2				40.0		38.1	20-150		
D3-NMEFOSAA	66.3				80.0		82.9	20-150		
D5-NETFOSAA	73.3				80.0		91.7	20-150		
D7-NMEFOSE	237				400		59.1	20-150		
D9-NETFOSE	260				400		65.0	20-150		
13C3-HFPO-DA	136				160		84.7	20-150		

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Project: Red Hill AFFF Assessment Sampling
Project Number: Red Hill AFFF Assessment Sampling
Project Manager: Watson Tanji

Reported: 01/13/2023 08:14

Quality Control (Continued)

WetLab

Analyte	Result/Qual	LOQ	LOD	MDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BBL0347 - ISM02.2										
Duplicate (BBL0347-DUP1)		Source: 22L0126-01				Prepared & Analyzed: 12/19/22 07:52				
	%									
% Solids	79.2					79.9			0.900	20
MOISTURE	20.8					20.1			3.50	20

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Project: Red Hill AFFF Assessment Sampling
Project Number: Red Hill AFFF Assessment Sampling
Project Manager: Watson Tanji

Reported: 01/13/2023 08:14

Notes and Definitions

Item	Definition
BS2	Blank spike recovered above the upper control limit
CV2	Calibration verification recovered above the upper control limit
IR1	Ion ratio below the lower control limit
IR2	Ion ratio above the upper control limit
J	Estimated value
MS2	Matrix spike recovered above the upper control limit
MS3	MS/MSD recovered with high RPD
S1	Surrogate recovered below the lower control limit
S2	Surrogate recovered above the upper control limit
U	Not detected
Dry	Sample results reported on a dry weight basis.
DL	Dilution Factor
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
*	Value outside control limits
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.

**WORK ORDER****22L0126**

Printed: 01/13/2023 8:14 am

Project: Red Hill AFFF Assessment Sampling
Project Number: Red Hill AFFF Assessment Sampling
Project Manager: Gregory Salata
PO Number: 60697810

Report To:

AECOM Honolulu
 Watson Tanji
 1001 Bishop Street, Suite 1600
 Honolulu, HI 96813
 Phone: (808) 954-4512
 Fax: (808) 523-8950

Invoice To:

AECOM Honolulu
 Watson Tanji
 1001 Bishop Street, Suite 1600
 Honolulu, HI 96813
 Phone: (808) 954-4512
 Fax: (808) 523-8950

Date Received: 12/16/2022 02:30 PM
 Date Due: 12/27/2022 (5.00 day TAT)

Logged In By: Megan Salata
 Received By: Megan Salata

Analysis		Comments
22L0126-01 ADIT6-DU05-SON01MI-22DEC [Solid] Sampled 12/15/2022 3:10:00PM		
% Solids	NONE	
1633 MIS Dry	NONE	"Report relevant surrogates"
1633 SPLP	NONE	
MIS Prep Dry	NONE	
22L0126-02 ADIT6-DU06-SON01MI-22DEC [Solid] Sampled 12/15/2022 2:40:00PM		
% Solids	NONE	
1633 MIS Dry	NONE	"Report relevant surrogates"
1633 SPLP	NONE	
MIS Prep Dry	NONE	
22L0126-03 ADIT6-DU07-SON01MI-22DEC [Solid] Sampled 12/15/2022 2:55:00PM		
% Solids	NONE	
1633 MIS Dry	NONE	"Report relevant surrogates"
1633 SPLP	NONE	
MIS Prep Dry	NONE	
22L0126-04 ADIT6-DU08-SON01MI-22DEC [Solid] Sampled 12/15/2022 11:32:00AM		
% Solids	NONE	
1633 MIS Dry	NONE	"Report relevant surrogates"
1633 SPLP	NONE	
MIS Prep Dry	NONE	



WORK ORDER

22L0126

Printed: 01/13/2023 8:14 am

(Continued)

Project: Red Hill AFFF Assessment Sampling
Project Number: Red Hill AFFF Assessment Sampling
Project Manager: Gregory Salata
PO Number: 60697810

22L0126 Sample Receipt Log

Default Cooler

 Samples Received at: **6.0°C**

Custody Seals	Yes	Were all containers sealed in separate bags?	Yes
Containers Intact	Yes	Did all containers arrive in good condition?	Yes
COC/Labels Agree	Yes	Correct containers/preserv. for tests indicated?	Yes
Preservation Confirmed	No	Sufficient volume sent for tests requested?	Yes
Received On Ice	Yes	Were bubbles absent in volatile samples?	No
Was a chain of custody received?	Yes	Sufficient remaining holding time for analyses?	Yes
COCs complete/signed in the appropriate places?	Yes	pH of non-VOA preserved containers documented?	No
Sample labels complete? Sample ID, date/time, etc.	Yes	Unpreserved vials received for VOA analysis?	No
Did all container labels agree with COCs?	Yes	If "yes", are unpreserved VOA vials noted on ARF?	No



ELECTRONIC CHAIN OF CUSTODY RECORD

908 N Temperance Ave
Clovis, CA 93611
www.applinc.com

Phone: (559) 275-2175
Fax: (559) 275-4422
coc@applinc.com

C.O.C. 02-221215-23F0104-APL

PLEASE PRINT

Invoice to:

AECOM

Phone:

808-954-4512 / 808-356-5311

AECOM

Phone: _____

Address: 1001 Bishop St ste1600

Honolulu, HI 96813

Watson Tanji / Brant Landers

Attn: _____
watson.tanji@aecom.com/brant.landiers@aecom.com

Sheree Smith

USAIPimaging@aecom.com

Invoice to:

AECOM

Phone: _____

Address:

Fax: _____

Sheree Smith

USAIPimaging@aecom.com

Report to: AECOM		PLEASE PRINT		Invoice to: AECOM		PLEASE PRINT	
Company Name: 1001 Bishop St ste1600		Phone: 808-954-4512 / 808-356-5311		Company Name: AECOM		Phone: _____	
Address: Honolulu, HI 96813		Fax: _____		Address: _____		Fax: _____	
Attn: Watson Tanji / Brant Landers		Attn: Sheree Smith		Email: USAPimaging@aecom.com		Email: _____	
Project Name/Number CTO N6274223F0104 / 60697810		Sampler (Print) Mitch Sieber		Analysis Requested/Method Number		Date Shipped:	
Purchase Order Number		Sampler (Signature) <i>Mitch Sieber</i>		1312 SPLP/EPA Draft 1633		Carrier:	
Sample Identification		Location		PFAS EPA Draft 1633		Waybill No.:	
				Matrix		Comments:	
				Soil			
				Sed.			
				Ag			
				No. of Containers			
				Time Zone			
				Time Collected			
				Date Collected			
				HST			
				12/15/22			
				1510			
				HST			
				12/15/22			
				1440			
				HST			
				12/15/22			
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				HST			
				12/15/22			
				1132			
		</					

Note: The first sampled date of the ARF will be used as the COC number unless indicated otherwise.



APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611
www.applinc.com

United Cargo: 016-4030760
ELECTRONIC CHAIN OF CUSTODY RECORD
Phone: (559) 275-2175
Fax: (559) 275-4422
coc@applinc.com C.O.C. 02-221215-23F0104-APL

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Invoice to:

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Company Name: **AECOM**

Phone: 808 954-4512 / 808 356-5311

Company Name: **AECOM**

Phone:

Address: **1001 Bishop St ste1600**

Fax:

Address:

Fax:

Honolulu, HI 96813Attn: **Watson Tanji / Brant Landers**Attn: **Sheree Smith**Email: **Watson.tanji@aecom.com/brant.landiers@aecom.com**Email: **USAPimaging@aecom.com**

Project Name/Number

CTO N627423F0104 / 60697810

Sampler (Print)

Milton Sieber

Purchase Order Number

Sample Identification

Location

Date

Time

Time

No. of Containers

Aq

Sed.

Soil

PFAS EPA Draft 1633

1312 SPLP/EPA Draft 1633

Analysis Requested/Method Number

Date Shipped:

Carrier:

Waybill No.:

Comments:

Store ALL samples until notified by client to dispose

Shuttle Temperature:

Turnaround Requested: Check one: ☒ Standard 2-3 wk ☐ One week ☐ 3 days ☐ 24/48 hrs ☐ OtherSample Disposal: ☐ Return to client ☐ Disposal by Lab (30-day retention)

Relinquished by samples

Date

Time

Received by:

Relinquished by:

Date

Time

Received by:

Received at lab by:

Relinquished by:

Date

Time

Received by:

Relinquished by:

Date

Time

Received at lab by:

Note: The first sampled date of the ARF will be used as the C.O.C. number unless indicated otherwise.

CUSTODY SEAL

AECOM (808) 521-3051

Initials

JS

Date

12/15/22

OTHER

PFAS

SAMPLE DATA

FORM I

ANALYSIS DATA SHEET

ADIT6-DU05-SON01MI-22DEC

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	22L0126-01
		File ID:	S2022-12-30A (22)
Sampled:	12/15/22 15:10	Prepared:	12/27/22 11:43
		Analyzed:	12/30/22 20:47
Solids:	79.91	Preparation:	EPA 1633
		Dilution:	1
Initial/Final:	5 g / 2 ml	Instrument:	Saphira
Batch:	BBL0470	Sequence:	SB04022
		Calibration:	2253011

COMPOUND	CONC. (ug/kg Dry)	LOQ	LOD	DL	Q
PFBA	0.34	0.30	0.20	0.15	
PFPEA	0.89	0.080	0.040	0.022	
PFHXA	0.93	0.040	0.020	0.015	
PFHPA	0.22	0.040	0.020	0.015	
PFOA	0.066	0.040	0.030	0.021	
PFNA	0.030 U	0.040	0.030	0.022	
PFDA	0.030 U	0.040	0.030	0.022	
PFUnA	0.020 U	0.040	0.020	0.020	
PFDOA	0.030 U	0.040	0.030	0.023	
PFTRDA	0.020 U	0.040	0.020	0.016	
PFTEDA	0.030 U	0.040	0.030	0.025	
PFBS	0.016 J	0.040	0.020	0.016	
PFPEs	0.018 J	0.040	0.020	0.012	
PFHXS	0.20	0.040	0.020	0.015	
PFHPS	0.020 U	0.040	0.020	0.011	
PFOS	0.72	0.040	0.020	0.0097	
PFNS	0.020 U	0.040	0.020	0.015	
PFDS	0.020 U	0.040	0.020	0.014	
PFDOS	0.020 U	0.040	0.020	0.013	
4:2FTS	0.080 U	0.16	0.080	0.045	
6:2FTS	11	0.16	0.080	0.061	
8:2FTS	0.080 U	0.16	0.080	0.051	
PFOSA	0.020 U	0.040	0.020	0.012	
NMeFOSA	0.080 U	0.16	0.080	0.066	
NEtFOSA	0.080 U	0.16	0.080	0.027	
NMeFOSAA	0.020 U	0.040	0.020	0.010	
NEtFOSAA	0.020 U	0.040	0.020	0.018	
NMeFOSE	0.080 U	0.16	0.080	0.054	
NEtFOSE	0.080 U	0.16	0.080	0.047	
HFPO-DA	0.040 U	0.080	0.040	0.022	

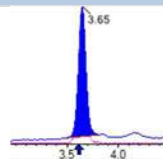
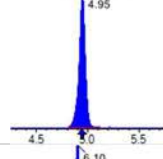
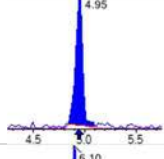
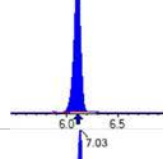
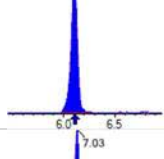
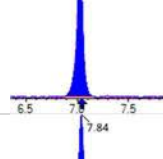
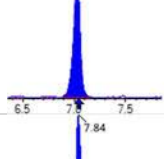
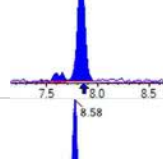
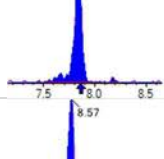
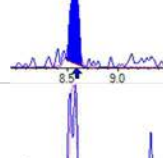
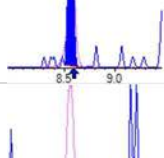
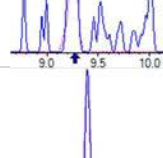
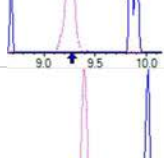
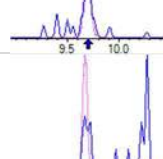
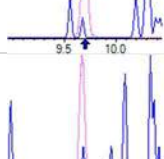
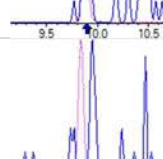
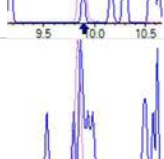
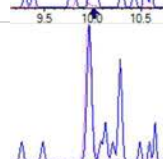
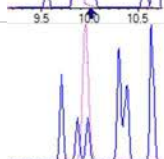
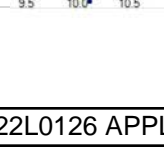
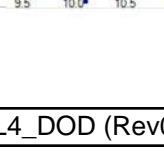
FORM I

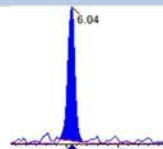
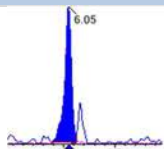
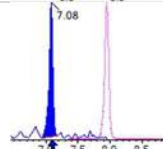
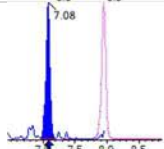
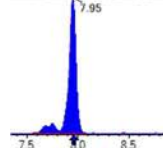
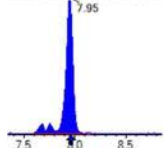
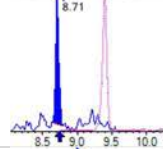
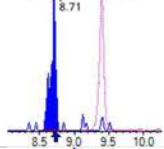
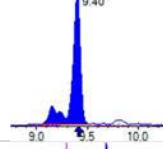
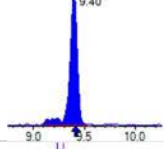
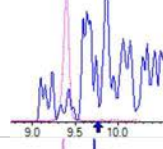
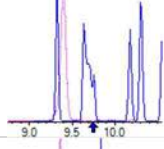
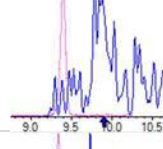
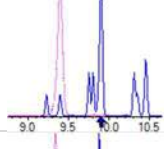
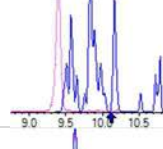
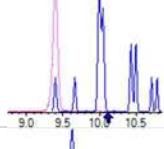
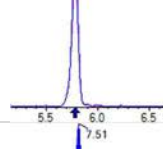
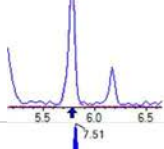
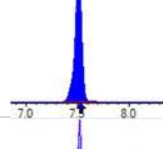
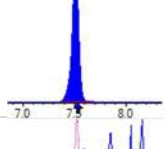
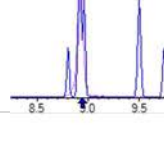
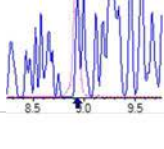
ANALYSIS DATA SHEET

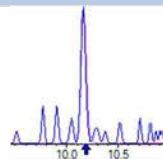
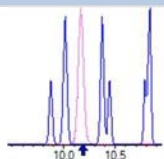
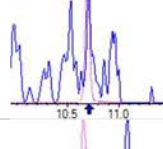
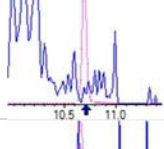
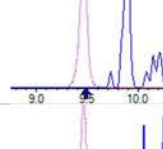
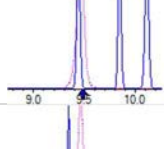
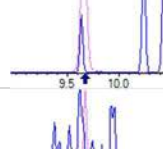
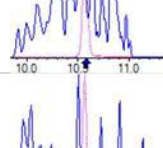
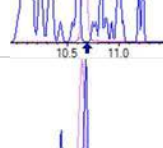
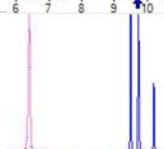
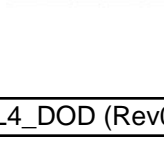
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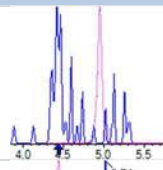
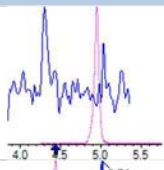
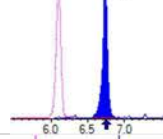
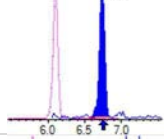
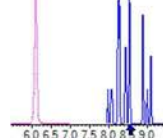
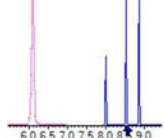
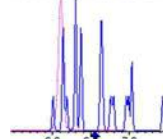
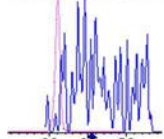
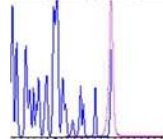
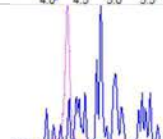
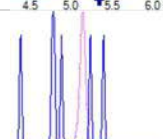
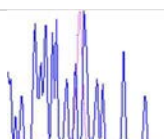
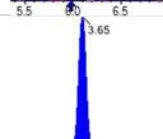
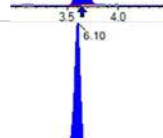
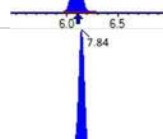
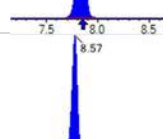
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Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	22L0126-01
		File ID:	S2022-12-30A (22)
Sampled:	12/15/22 15:10	Prepared:	12/27/22 11:43
		Analyzed:	12/30/22 20:47
Solids:	79.91	Preparation:	EPA 1633
		Dilution:	1
Initial/Final:	5 g / 2 ml	Instrument:	Saphira
Batch:	BBL0470	Sequence:	SB04022
		Calibration:	2253011

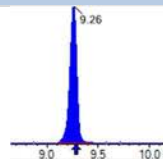
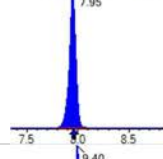
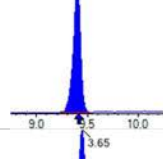
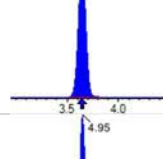
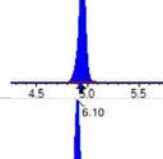
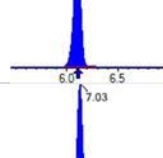
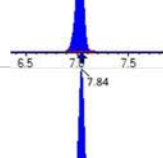
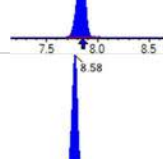
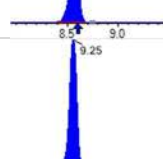
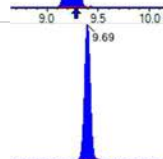
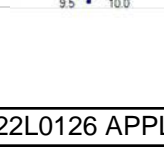
COMPOUND	CONC. (ug/kg Dry)	LOQ	LOD	DL	Q
ADONA	0.040 U	0.080	0.040	0.026	
PFEESA	0.040 U	0.080	0.040	0.017	
PFMPA	0.040 U	0.080	0.040	0.028	
PFMBA	0.040 U	0.080	0.040	0.032	
NFDHA	0.060 U	0.080	0.060	0.049	
9CL-PF3ONS	0.040 U	0.080	0.040	0.024	
11CL-PF3OUDS	0.040 U	0.080	0.040	0.027	
3:3FTCA	0.080 U	0.16	0.080	0.064	
5:3FTCA	0.14 J	0.16	0.080	0.065	
7:3FTCA	0.080 U	0.16	0.080	0.050	

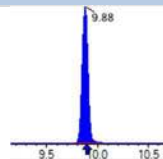
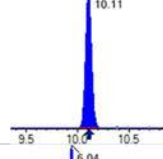
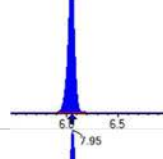
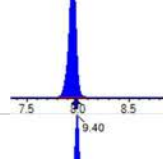
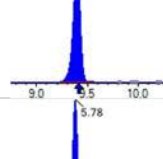
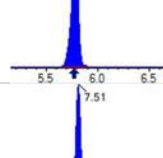
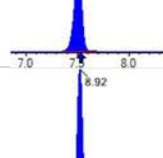
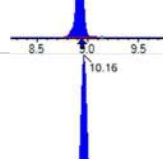
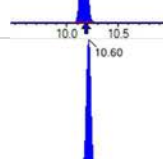
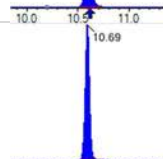
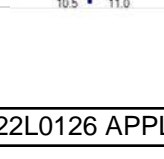
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 164738	(3.65 , 1.00) (0.00 , N/A , 0.0)	228.6	N/A 0.0 0.0	0.8487	N/A			
PFPeA	(263.0 / 219.0) 634188 (263.0 / 69.0) 7167	(4.95 , 1.00) (0.00 , N/A , 0.0)	525.6 106.6	0.0113 109.3 105.6	2.2342	N/A			
PFHxA	(313.0 / 269.0) 983453 (313.0 / 119.0) 92118	(6.10 , 1.00) (0.00 , N/A , 0.0)	486.2 431.4	0.0937 96.2 102.4	2.3254	N/A			
PFHpA	(363.0 / 319.0) 216101 (363.0 / 169.0) 61239	(7.03 , 1.00) (0.00 , N/A , 0.0)	283.1 257.8	0.2834 99.0 100.6	0.5624	N/A			
PFOA	(413.0 / 369.0) 72013 (413.0 / 169.0) 23590	(7.84 , 1.00) (0.00 , N/A , -0.1)	270.3 9214.1	0.3276 107.9 97.4	0.1641	N/A			
PFNA	(463.0 / 419.0) 9379 (463.0 / 169.0) 2633	(8.58 , 1.00) (0.00 , N/A , 0.6)	42.8 46.2	0.2808 132.6 140.5	0.0322	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

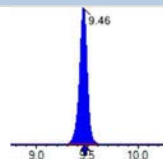
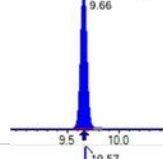
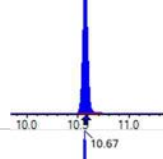
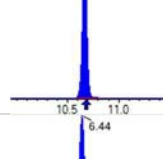
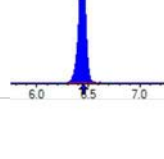
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 25988 (299.0 / 99.0) 20028	(6.04 , 1.00) (0.00 , N/A , -0.1)	84.2 67.6	0.7707 117.3 127.1	0.0407	N/A			
PFPeS	(349.0 / 80.0) 44726 (349.0 / 99.0) 13763	(7.08 , 0.89) (N/A , -0.01 , 0.1)	90.3 81.6	0.3077 83.0 90.3	0.0443	N/A			
PFHxS	(399.0 / 80.0) 451702 (399.0 / 99.0) 152017	(7.95 , 1.00) (0.00 , N/A , 0.1)	605.6 465.7	0.3365 103.2 107.7	0.5077	N/A			
PFHpS	(449.0 / 80.0) 19343 (449.0 / 99.0) 4734	(8.71 , 0.93) (N/A , -0.02 , 0.0)	51.4 60.6	0.2447 93.9 95.2	0.0233	N/A			
PFOS	(499.0 / 80.0) 1726142 (499.0 / 99.0) 381890	(9.40 , 1.00) (0.00 , N/A , 0.1)	193.5 309.7	0.2212 106.4 92.7	1.8086	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(699.0 / 80.0) N/A (699.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) 8404581 (427.0 / 81.0) 6129848	(7.51 , 1.00) (0.00 , N/A , 0.0)	715.1 802.2	0.7293 98.7 87.8	28.5461	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(512.0 / 219.0) N/A (512.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSE	(630.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9Cl-PF3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11Cl-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) 22593 (341.0 / 217.0) 35697	(6.74 , 1.10) (N/A , -0.01 , 0.1)	173.5 121.8	1.5800 88.0 102.3	0.3490	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(295.0 / 201.0) N/A (295.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 213574	(3.65 , N/A) (N/A , 0.01 , N/A)	490.9	N/A	0.9917 [1.0000]	99.2% { 105.7% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 436509	(6.10 , N/A) (N/A , 0.00 , N/A)	421.9	N/A	1.1499 [1.0000]	115.0% { 112.0% }			
13C4_PFOA_IIS	(417.0 / 372.0) 429699	(7.84 , N/A) (N/A , -0.02 , N/A)	701.7	N/A	1.1904 [1.0000]	119.0% { 112.0% }			
13C5_PFNA_IIS	(468.0 / 423.0) 349889	(8.57 , N/A) (N/A , -0.02 , N/A)	411.3	N/A	1.1898 [1.0000]	119.0% { 120.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 366037	(9.26, N/A) (N/A, -0.01, N/A)	402.2	N/A	1.0745 [1.0000]	107.5% { 105.1% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 674098	(7.95, N/A) (N/A, -0.02, N/A)	730.3	N/A	1.1141 [1.0000]	111.4% { 106.5% }			
13C4_PFOS_IIS	(503.0 / 79.9) 698502	(9.40, N/A) (N/A, -0.01, N/A)	244.8	N/A	1.0833 [1.0000]	108.3% { 109.9% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1661982	(3.65, N/A) (N/A, 0.01, N/A)	833.0	N/A	7.7509 [8.0000]	96.9% { 106.9% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1195770	(4.95, N/A) (N/A, 0.02, N/A)	590.1	N/A	3.6310 [4.0000]	90.8% { 97.5% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 852360	(6.10, N/A) (N/A, 0.00, N/A)	562.8	N/A	1.9082 [2.0000]	95.4% { 105.9% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 733393	(7.03, N/A) (N/A, -0.01, N/A)	535.4	N/A	1.8900 [2.0000]	94.5% { 94.6% }			
13C8_PFOA_EIS	(421.0 / 376.0) 823792	(7.84, N/A) (N/A, -0.02, N/A)	610.7	N/A	1.8738 [2.0000]	93.7% { 111.9% }			
13C9_PFNA_EIS	(472.0 / 427.0) 301755	(8.58, N/A) (N/A, -0.02, N/A)	410.1	N/A	0.8300 [1.0000]	83.0% { 94.7% }			
13C6_PFDA_EIS	(519.0 / 474.0) 434839	(9.25, N/A) (N/A, -0.02, N/A)	458.1	N/A	0.9835 [1.0000]	98.3% { 113.8% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 524429	(9.69, N/A) (N/A, -0.01, N/A)	551.9	N/A	0.9645 [1.0000]	96.4% { 96.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 510915	(9.88 , N/A) (N/A , -0.01 , N/A)	588.0	N/A	0.9416 [1.0000]	94.2% { 88.3% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 354001	(10.11 , N/A) (N/A , -0.01 , N/A)	610.5	N/A	1.0296 [1.0000]	103.0% { 93.6% }			
13C3_PFBs_EIS	(302.0 / 80.0) 2002334	(6.04 , N/A) (N/A , 0.00 , N/A)	552.1	N/A	1.9626 [2.0000]	98.1% { 101.8% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1027258	(7.95 , N/A) (N/A , -0.02 , N/A)	744.3	N/A	1.8596 [2.0000]	93.0% { 103.8% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1639221	(9.40 , N/A) (N/A , -0.01 , N/A)	428.2	N/A	1.9474 [2.0000]	97.4% { 106.7% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 626765	(5.78 , N/A) (N/A , 0.01 , N/A)	575.1	N/A	5.4377 [4.0000]	135.9% { 126.0% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 733522	(7.51 , N/A) (N/A , -0.02 , N/A)	611.3	N/A	4.8097 [4.0000]	120.2% { 125.9% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 580305	(8.92 , N/A) (N/A , -0.01 , N/A)	478.3	N/A	3.0186 [4.0000]	75.5% { 93.1% }			
13C8_PFOA_EIS	(506.0 / 78.0) 1551375	(10.16 , N/A) (N/A , -0.01 , N/A)	750.4	N/A	1.5790 [2.0000]	79.0% { 81.5% }			
D3_NMeFOA_EIS	(515.0 / 169.0) 163723	(10.60 , N/A) (N/A , -0.01 , N/A)	657.5	N/A	0.8812 [2.0000]	44.1% { 44.1% }			
D5_NEtFOA_EIS	(531.0 / 169.0) 164270	(10.69 , N/A) (N/A , -0.01 , N/A)	699.8	N/A	0.9653 [2.0000]	48.3% { 48.1% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 931831	(9.46 , N/A) (N/A , -0.01 , N/A)	524.3	N/A	3.5183 [4.0000]	88.0% { 92.4% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 1029273	(9.66 , N/A) (N/A , -0.01 , N/A)	119.8	N/A	4.8878 [4.0000]	122.2% { 115.1% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 584689	(10.57 , N/A) (N/A , -0.01 , N/A)	955.1	N/A	14.4042 [20.0000]	72.0% { 58.8% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 304091	(10.67 , N/A) (N/A , -0.01 , N/A)	1326.9	N/A	16.2459 [20.0000]	81.2% { 64.7% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1851254	(6.44 , N/A) (N/A , 0.00 , N/A)	621.7	N/A	7.4085 [8.0000]	92.6% { 105.9% }			

FORM I

ANALYSIS DATA SHEET

ADIT6-DU06-SON01MI-22DEC

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	22L0126-02
		File ID:	S2022-12-30A (24)
Sampled:	12/15/22 14:40	Prepared:	12/27/22 11:43
		Analyzed:	12/30/22 21:13
Solids:	79.36	Preparation:	EPA 1633
		Dilution:	1
Initial/Final:	5.15 g / 2 ml	Instrument:	Saphira
Batch:	BBL0470	Sequence:	SB04022
		Calibration:	2253011

COMPOUND	CONC. (ug/kg Dry)	LOQ	LOD	DL	Q
PFBA	0.19 U	0.29	0.19	0.15	
PFPEA	0.13	0.078	0.039	0.021	
PFHXA	0.15	0.039	0.019	0.015	
PFHPA	0.068	0.039	0.019	0.015	
PFOA	0.12	0.039	0.029	0.021	
PFNA	0.034 J	0.039	0.029	0.021	
PFDA	0.029 U	0.039	0.029	0.021	
PFUnA	0.019 U	0.039	0.019	0.020	
PFDOA	0.029 U	0.039	0.029	0.022	
PFTRDA	0.019 U	0.039	0.019	0.016	
PFTEDA	0.029 U	0.039	0.029	0.024	
PFBS	0.019 U	0.039	0.019	0.016	
PFPEs	0.019 U	0.039	0.019	0.011	
PFHXS	0.16	0.039	0.019	0.015	
PFHPS	0.016 J	0.039	0.019	0.010	
PFOS	1.7	0.039	0.019	0.0094	
PFNS	0.019 U	0.039	0.019	0.014	
PFDS	0.019 U	0.039	0.019	0.013	
PFDOS	0.019 U	0.039	0.019	0.013	
4:2FTS	0.078 U	0.16	0.078	0.044	
6:2FTS	0.085 J	0.16	0.078	0.059	
8:2FTS	0.078 U	0.16	0.078	0.050	
PFOSA	0.019 U	0.039	0.019	0.012	
NMeFOSA	0.078 U	0.16	0.078	0.064	
NEtFOSA	0.078 U	0.16	0.078	0.026	
NMeFOSAA	0.019 U	0.039	0.019	0.0098	
NEtFOSAA	0.019 U	0.039	0.019	0.017	
NMeFOSE	0.078 U	0.16	0.078	0.052	
NEtFOSE	0.078 U	0.16	0.078	0.046	
HFPO-DA	0.039 U	0.078	0.039	0.021	

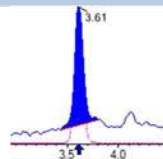
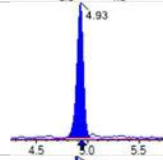
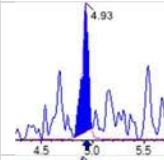
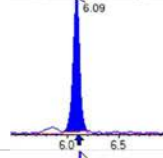
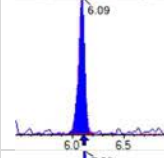
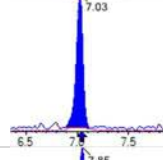
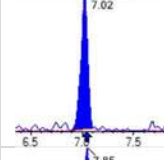
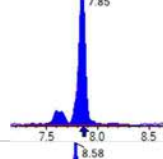
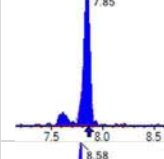
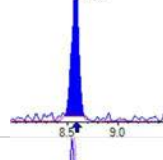
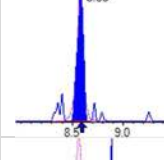
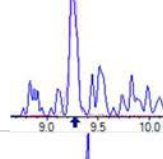
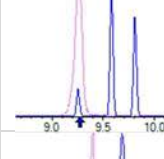
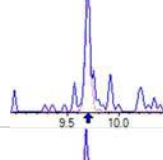
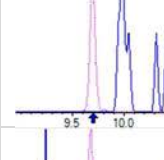
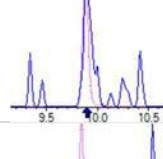
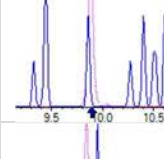
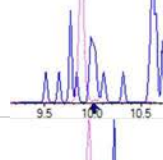
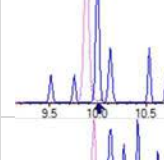
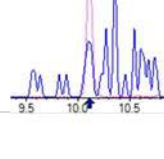
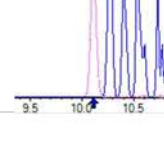
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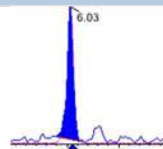
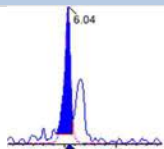
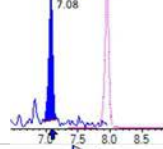
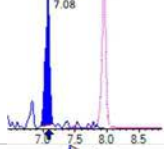
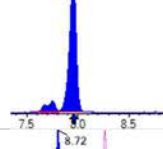
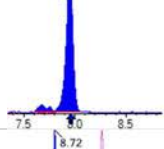
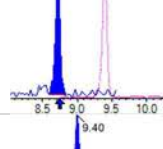
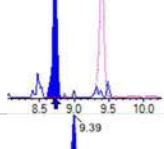
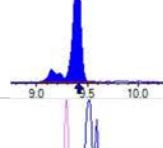
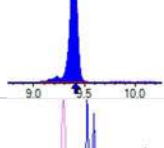
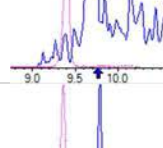
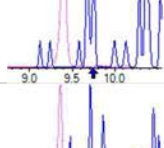
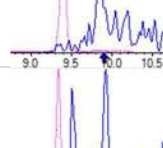
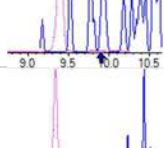
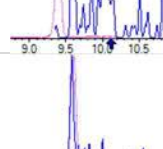
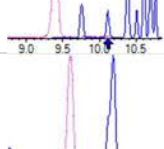
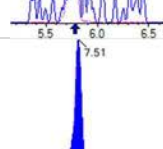
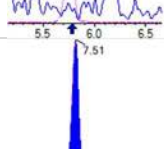
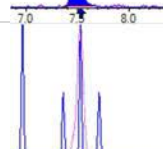
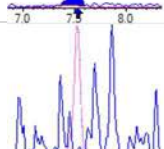


ANALYSIS DATA SHEET

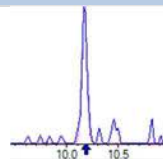
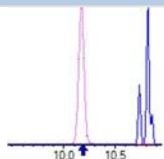
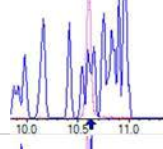
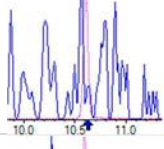
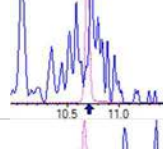
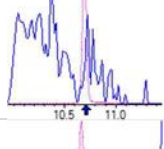
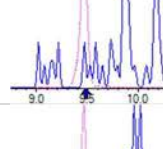
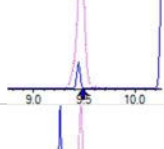
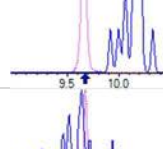
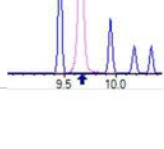
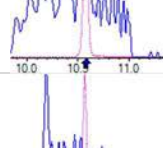
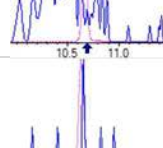
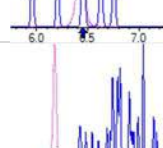
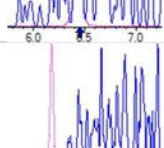
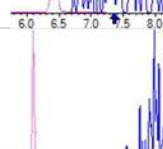
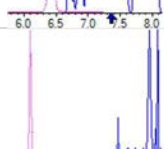
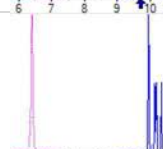
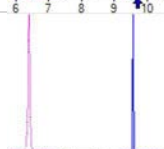
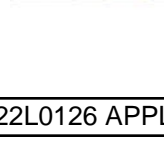
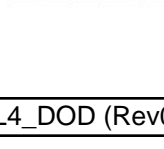
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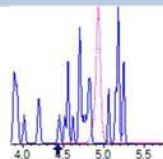
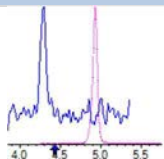
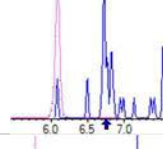
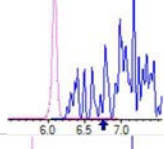
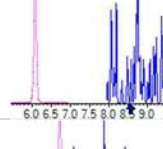
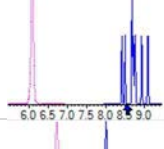
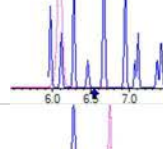
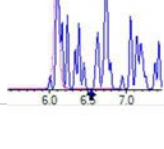
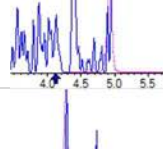
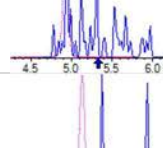
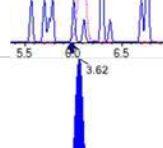
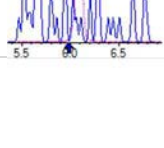
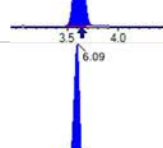
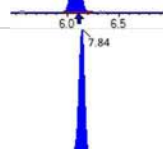
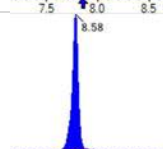
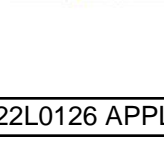
Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	22L0126-02
		File ID:	S2022-12-30A (24)
Sampled:	12/15/22 14:40	Prepared:	12/27/22 11:43
		Analyzed:	12/30/22 21:13
Solids:	79.36	Preparation:	EPA 1633
		Dilution:	1
Initial/Final:	5.15 g / 2 ml	Instrument:	Saphira
Batch:	BBL0470	Sequence:	SB04022
		Calibration:	2253011

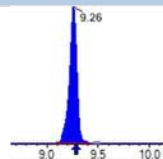
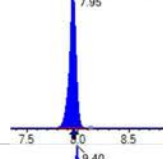
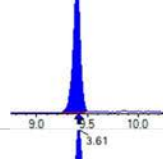
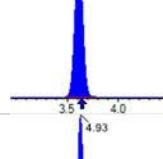
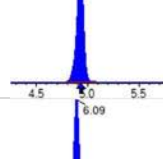
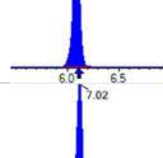
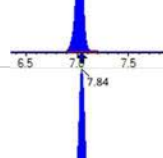
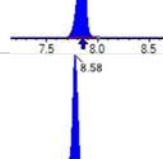
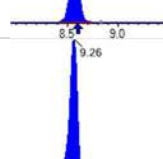
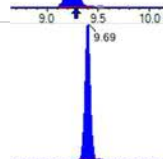
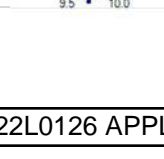
COMPOUND	CONC. (ug/kg Dry)	LOQ	LOD	DL	Q
ADONA	0.039 U	0.078	0.039	0.026	
PFEESA	0.039 U	0.078	0.039	0.017	
PFMPA	0.039 U	0.078	0.039	0.027	
PFMBA	0.039 U	0.078	0.039	0.031	
NFDHA	0.058 U	0.078	0.058	0.048	
9CL-PF3ONS	0.039 U	0.078	0.039	0.023	
11CL-PF3OUDS	0.039 U	0.078	0.039	0.026	
3:3FTCA	0.078 U	0.16	0.078	0.062	
5:3FTCA	0.078 U	0.16	0.078	0.063	
7:3FTCA	0.078 U	0.16	0.078	0.048	

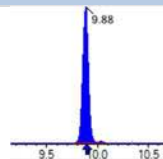
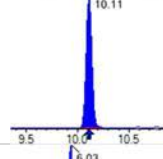
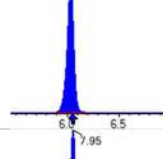
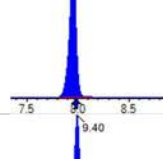
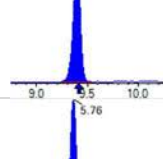
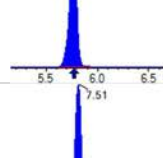
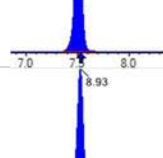
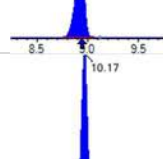
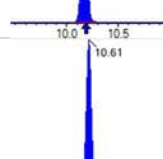
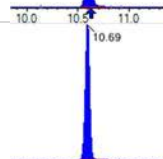
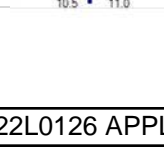
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 61651	(3.61 , 1.00) (0.00 , N/A , 0.0)	103.1	N/A 0.0 0.0	0.3440	N/A			
PFPeA	(263.0 / 219.0) 95680 (263.0 / 69.0) 990	(4.93 , 1.00) (0.00 , N/A , -0.4)	270.2 15.3	0.0103 100.1 96.7	0.3386	N/A			
PFHxA	(313.0 / 269.0) 166891 (313.0 / 119.0) 14384	(6.09 , 1.00) (0.00 , N/A , -0.3)	146.8 87.5	0.0862 88.6 94.2	0.3987	N/A			
PFHpA	(363.0 / 319.0) 67124 (363.0 / 169.0) 19876	(7.03 , 1.00) (0.00 , N/A , 0.1)	107.2 78.1	0.2961 103.5 105.2	0.1744	N/A			
PFOA	(413.0 / 369.0) 128117 (413.0 / 169.0) 34222	(7.85 , 1.00) (0.00 , N/A , 0.1)	380.8 18061.4	0.2671 88.0 79.5	0.3096	N/A			
PFNA	(463.0 / 419.0) 25469 (463.0 / 169.0) 3269	(8.58 , 1.00) (0.00 , N/A , -0.1)	67.0 67.5	0.1284 60.6 64.2	0.0864	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDaA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

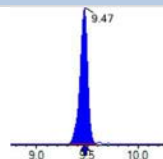
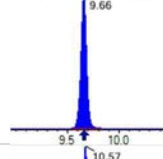
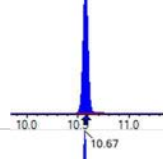
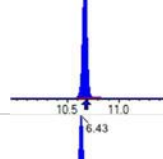
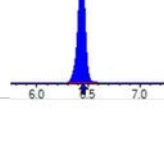
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 19891 (299.0 / 99.0) 9974	(6.03 , 1.00) (0.00 , N/A , -0.4)	73.3 42.3	0.5014 76.3 82.7	0.0313	N/A			
PFPeS	(349.0 / 80.0) 23464 (349.0 / 99.0) 10536	(7.08 , 0.89) (N/A , -0.01 , 0.1)	59.2 66.9	0.4490 121.1 131.7	0.0235	N/A			
PFHxS	(399.0 / 80.0) 364514 (399.0 / 99.0) 116801	(7.95 , 1.00) (0.00 , N/A , 0.2)	492.3 433.1	0.3204 98.3 102.5	0.4150	N/A			
PFHpS	(449.0 / 80.0) 35338 (449.0 / 99.0) 9063	(8.72 , 0.93) (N/A , -0.01 , 0.1)	66.0 59.8	0.2565 98.4 99.8	0.0411	N/A			
PFOS	(499.0 / 80.0) 4360341 (499.0 / 99.0) 1022707	(9.40 , 1.00) (0.00 , N/A , 0.3)	348.6 616.8	0.2345 112.8 98.2	4.4102	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(699.0 / 80.0) N/A (699.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) 62665 (427.0 / 81.0) 47814	(7.51 , 1.00) (0.00 , N/A , -0.1)	245.9 167.8	0.7630 103.2 91.8	0.2185	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(512.0 / 219.0) N/A (512.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSE	(630.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-PF3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(295.0 / 201.0) N/A (295.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 206010	(3.62 , N/A) (N/A , -0.02 , N/A)	645.4	N/A	0.9566 [1.0000]	95.7% { 101.9% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 400901	(6.09 , N/A) (N/A , -0.01 , N/A)	417.1	N/A	1.0561 [1.0000]	105.6% { 102.8% }			
13C4_PFOA_IIS	(417.0 / 372.0) 369549	(7.84 , N/A) (N/A , -0.01 , N/A)	580.5	N/A	1.0238 [1.0000]	102.4% { 96.3% }			
13C5_PFNA_IIS	(468.0 / 423.0) 368631	(8.58 , N/A) (N/A , -0.01 , N/A)	404.6	N/A	1.2536 [1.0000]	125.4% { 126.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 410924	(9.26 , N/A) (N/A , -0.01 , N/A)	334.4	N/A	1.2063 [1.0000]	120.6% { 118.0% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 645558	(7.95 , N/A) (N/A , -0.02 , N/A)	652.1	N/A	1.0669 [1.0000]	106.7% { 102.0% }			
13C4_PFOS_IIS	(503.0 / 79.9) 694870	(9.40 , N/A) (N/A , -0.01 , N/A)	238.3	N/A	1.0776 [1.0000]	107.8% { 109.3% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1534670	(3.61 , N/A) (N/A , -0.02 , N/A)	700.1	N/A	7.4200 [8.0000]	92.7% { 98.7% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1190198	(4.93 , N/A) (N/A , 0.00 , N/A)	586.5	N/A	3.9351 [4.0000]	98.4% { 97.0% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 843730	(6.09 , N/A) (N/A , -0.01 , N/A)	695.1	N/A	2.0567 [2.0000]	102.8% { 104.9% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 734573	(7.02 , N/A) (N/A , -0.01 , N/A)	459.3	N/A	2.0612 [2.0000]	103.1% { 94.8% }			
13C8_PFOA_EIS	(421.0 / 376.0) 776882	(7.84 , N/A) (N/A , -0.01 , N/A)	595.4	N/A	2.0547 [2.0000]	102.7% { 105.5% }			
13C9_PFNA_EIS	(472.0 / 427.0) 305481	(8.58 , N/A) (N/A , -0.02 , N/A)	406.0	N/A	0.7976 [1.0000]	79.8% { 95.8% }			
13C6_PFDA_EIS	(519.0 / 474.0) 429264	(9.26 , N/A) (N/A , -0.01 , N/A)	343.1	N/A	0.8648 [1.0000]	86.5% { 112.4% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 600407	(9.69 , N/A) (N/A , -0.01 , N/A)	513.6	N/A	0.9836 [1.0000]	98.4% { 110.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 454132	(9.88 , N/A) (N/A , 0.00 , N/A)	356.6	N/A	0.7455 [1.0000]	74.6% { 78.5% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 322786	(10.11 , N/A) (N/A , -0.01 , N/A)	1033.0	N/A	0.8363 [1.0000]	83.6% { 85.3% }			
13C3_PFBs_EIS	(302.0 / 80.0) 1991557	(6.03 , N/A) (N/A , -0.01 , N/A)	614.3	N/A	2.0384 [2.0000]	101.9% { 101.3% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1014198	(7.95 , N/A) (N/A , -0.02 , N/A)	615.2	N/A	1.9171 [2.0000]	95.9% { 102.5% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1698128	(9.40 , N/A) (N/A , -0.01 , N/A)	361.8	N/A	2.0279 [2.0000]	101.4% { 110.6% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 572067	(5.76 , N/A) (N/A , -0.01 , N/A)	531.3	N/A	5.1826 [4.0000]	129.6% { 115.0% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 714484	(7.51 , N/A) (N/A , -0.02 , N/A)	694.5	N/A	4.8920 [4.0000]	122.3% { 122.7% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 807263	(8.93 , N/A) (N/A , -0.01 , N/A)	507.1	N/A	4.3848 [4.0000]	109.6% { 129.5% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 1607041	(10.17 , N/A) (N/A , -0.01 , N/A)	617.3	N/A	1.6442 [2.0000]	82.2% { 84.4% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 171525	(10.61 , N/A) (N/A , -0.01 , N/A)	537.3	N/A	0.9280 [2.0000]	46.4% { 46.2% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 179297	(10.69 , N/A) (N/A , -0.01 , N/A)	678.6	N/A	1.0591 [2.0000]	53.0% { 52.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 885783	(9.47 , N/A) (N/A , -0.01 , N/A)	275.6	N/A	3.3619 [4.0000]	84.0% { 87.9% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 1013907	(9.66 , N/A) (N/A , -0.01 , N/A)	111.3	N/A	4.8400 [4.0000]	121.0% { 113.4% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 521296	(10.57 , N/A) (N/A , -0.01 , N/A)	830.0	N/A	12.9096 [20.0000]	64.5% { 52.4% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 297270	(10.67 , N/A) (N/A , -0.01 , N/A)	1038.4	N/A	15.9645 [20.0000]	79.8% { 63.3% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1711650	(6.43 , N/A) (N/A , -0.01 , N/A)	795.1	N/A	7.4582 [8.0000]	93.2% { 97.9% }			

FORM I

ANALYSIS DATA SHEET

ADIT6-DU07-SON01MI-22DEC

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	22L0126-03
		File ID:	S2022-12-30A (26)
Sampled:	12/15/22 14:55	Prepared:	12/27/22 11:43
		Analyzed:	12/30/22 21:39
Solids:	80.57	Preparation:	EPA 1633
		Dilution:	1
Initial/Final:	5.28 g / 2 ml	Instrument:	Saphira
Batch:	BBL0470	Sequence:	SB04022
		Calibration:	2253011

COMPOUND	CONC. (ug/kg Dry)	LOQ	LOD	DL	Q
PFBA	0.17 J	0.28	0.19	0.14	
PFPEA	0.55	0.076	0.038	0.020	
PFHXA	0.33	0.038	0.019	0.014	
PFHPA	0.079	0.038	0.019	0.015	
PFOA	0.067	0.038	0.028	0.020	
PFNA	0.031 J	0.038	0.028	0.021	
PFDA	0.028 U	0.038	0.028	0.021	
PFUnA	0.019 U	0.038	0.019	0.019	
PFDOA	0.028 U	0.038	0.028	0.022	
PFTRDA	0.019 U	0.038	0.019	0.015	
PFTEDA	0.028 U	0.038	0.028	0.024	
PFBS	0.024 J	0.038	0.019	0.015	
PFPEs	0.023 J	0.038	0.019	0.011	
PFHXS	0.21	0.038	0.019	0.015	
PFHPS	0.019 U	0.038	0.019	0.010	
PFOS	1.3	0.038	0.019	0.0092	
PFNS	0.019 U	0.038	0.019	0.014	
PFDS	0.019 U	0.038	0.019	0.013	
PFDOS	0.019 U	0.038	0.019	0.012	
4:2FTS	0.076 U	0.15	0.076	0.043	
6:2FTS	0.67	0.15	0.076	0.058	
8:2FTS	0.076 U	0.15	0.076	0.048	
PFOSA	0.019 U	0.038	0.019	0.012	
NMeFOSA	0.076 U	0.15	0.076	0.062	
NEtFOSA	0.076 U	0.15	0.076	0.025	
NMeFOSAA	0.019 U	0.038	0.019	0.0095	
NEtFOSAA	0.019 U	0.038	0.019	0.017	
NMeFOSE	0.076 U	0.15	0.076	0.051	
NEtFOSE	0.076 U	0.15	0.076	0.045	
HFPO-DA	0.038 U	0.076	0.038	0.021	

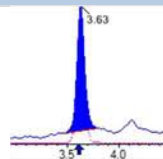
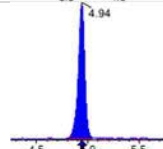
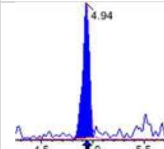
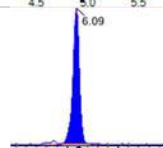
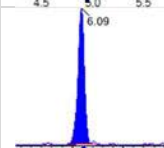
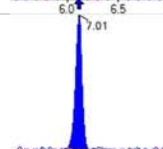
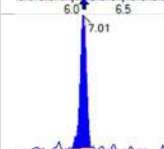
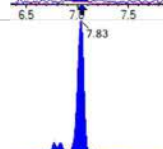
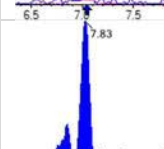
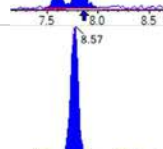
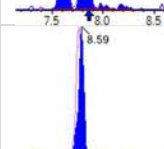
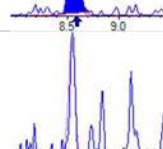
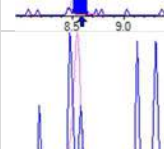
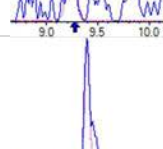
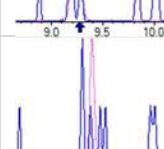
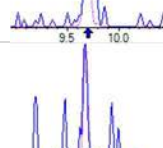
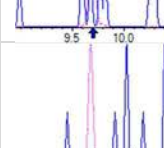
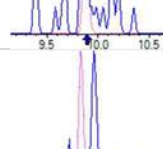
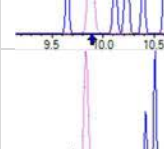
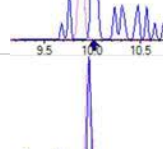
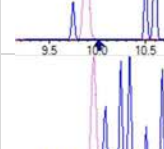
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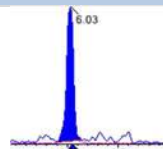
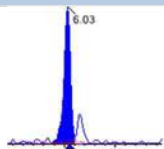
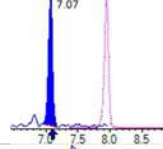
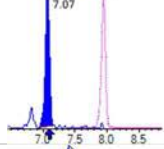
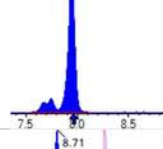
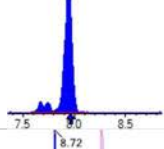
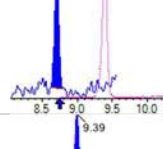
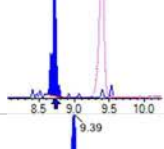
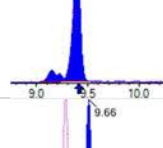
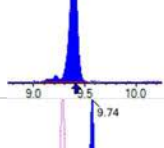
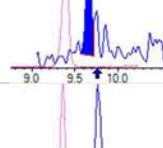
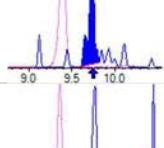
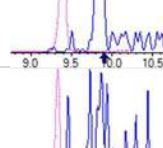
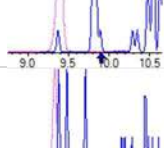
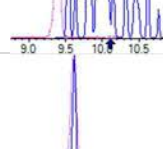
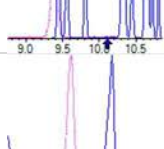
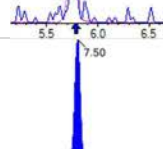
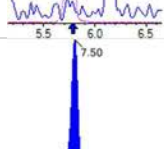
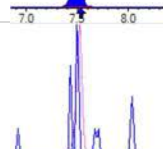
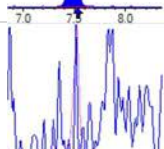

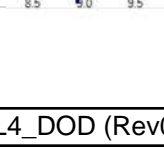
ANALYSIS DATA SHEET

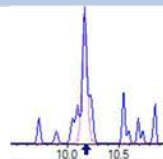
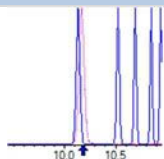
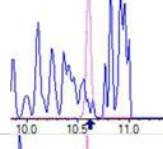
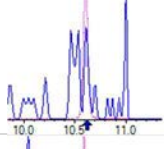
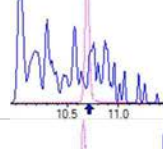
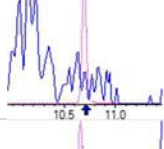
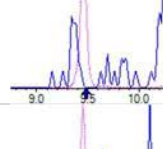
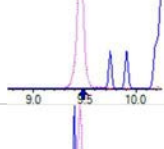
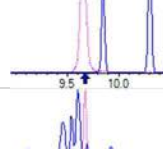
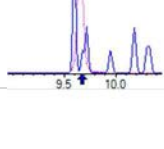
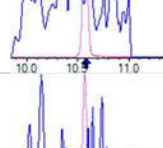
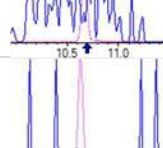
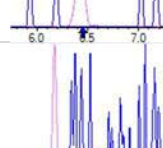
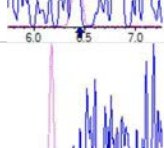
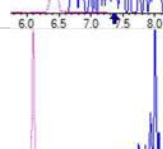
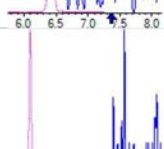
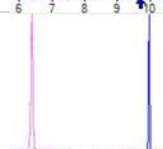
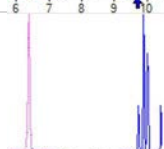
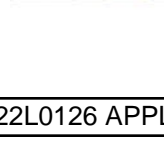
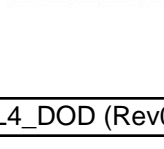
ADIT6-DU07-SON01MI-22DEC

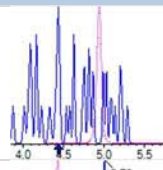
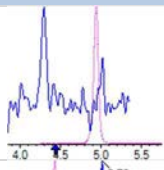
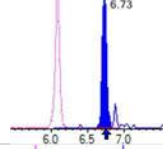
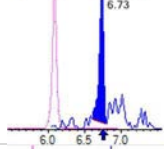
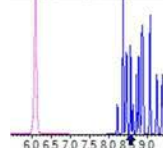
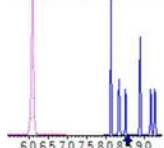
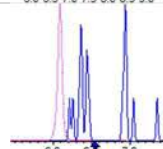
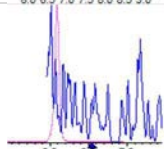
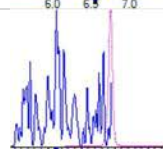
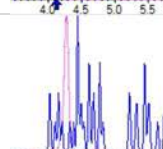
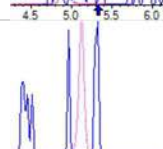
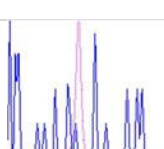
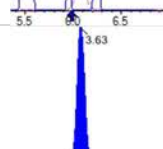
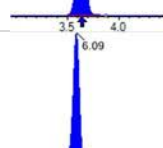
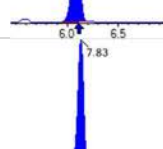
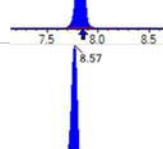
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Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	22L0126-03
		File ID:	S2022-12-30A (26)
Sampled:	12/15/22 14:55	Prepared:	12/27/22 11:43
		Analyzed:	12/30/22 21:39
Solids:	80.57	Preparation:	EPA 1633
		Dilution:	1
Initial/Final:	5.28 g / 2 ml	Instrument:	Saphira
Batch:	BBL0470	Sequence:	SB04022
		Calibration:	2253011

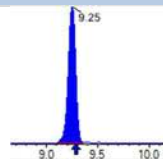
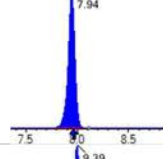
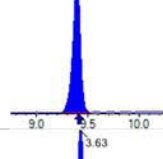
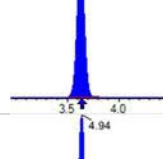
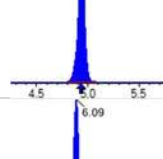
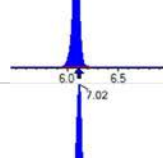
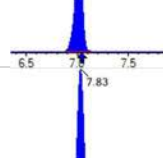
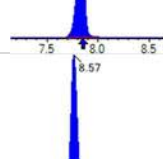
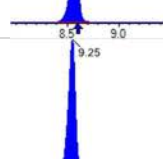
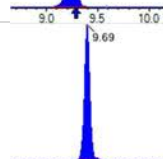
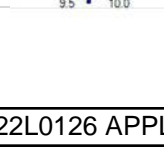
COMPOUND	CONC. (ug/kg Dry)	LOQ	LOD	DL	Q
ADONA	0.038 U	0.076	0.038	0.025	
PFEESA	0.038 U	0.076	0.038	0.016	
PFMPA	0.038 U	0.076	0.038	0.026	
PFMBA	0.038 U	0.076	0.038	0.031	
NFDHA	0.057 U	0.076	0.057	0.047	
9CL-PF3ONS	0.038 U	0.076	0.038	0.023	
11CL-PF3OUDS	0.038 U	0.076	0.038	0.025	
3:3FTCA	0.076 U	0.15	0.076	0.060	
5:3FTCA	0.076 U	0.15	0.076	0.062	
7:3FTCA	0.076 U	0.15	0.076	0.047	

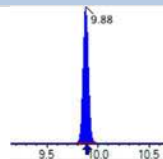
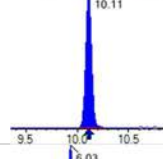
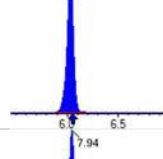
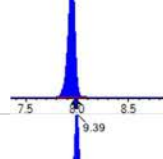
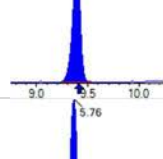
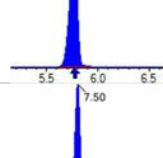
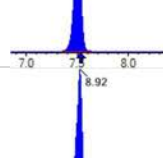
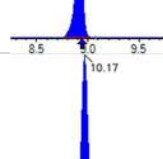
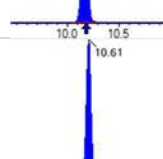
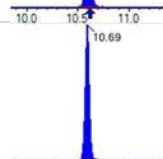
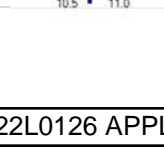
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 80276	(3.63 , 1.00) (0.00 , N/A , 0.0)	130.0	N/A 0.0 0.0	0.4531	N/A			
PFPeA	(263.0 / 219.0) 361189 (263.0 / 69.0) 3505	(4.94 , 1.00) (0.00 , N/A , 0.2)	499.8 48.8	0.0097 93.9 90.7	1.4488	N/A			
PFHxA	(313.0 / 269.0) 348428 (313.0 / 119.0) 32510	(6.09 , 1.00) (0.00 , N/A , 0.0)	269.7 222.0	0.0933 95.9 102.0	0.8769	N/A			
PFHpA	(363.0 / 319.0) 81029 (363.0 / 169.0) 21483	(7.01 , 1.00) (0.00 , N/A , 0.3)	127.8 94.2	0.2651 92.7 94.2	0.2077	N/A			
PFOA	(413.0 / 369.0) 73992 (413.0 / 169.0) 26764	(7.83 , 1.00) (0.00 , N/A , 0.3)	256.3 10361.6	0.3617 119.1 107.6	0.1766	N/A			
PFNA	(463.0 / 419.0) 25515 (463.0 / 169.0) 4445	(8.57 , 1.00) (0.01 , N/A , -1.2)	67.5 109.0	0.1742 82.3 87.2	0.0830	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDaA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

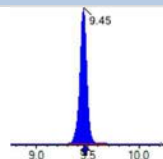
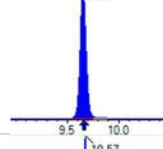
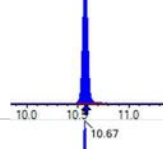
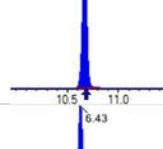
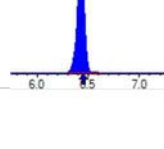
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 39094 (299.0 / 99.0) 27624	(6.03 , 1.00) (0.00 , N/A , -0.3)	82.1 86.3	0.7066 107.5 116.5	0.0627	N/A			
PFPeS	(349.0 / 80.0) 61171 (349.0 / 99.0) 20953	(7.07 , 0.89) (N/A , -0.02 , 0.1)	117.7 98.9	0.3425 92.4 100.5	0.0605	N/A			
PFHxS	(399.0 / 80.0) 483233 (399.0 / 99.0) 157399	(7.94 , 1.00) (0.00 , N/A , 0.0)	499.7 521.1	0.3257 99.9 104.2	0.5427	N/A			
PFHpS	(449.0 / 80.0) 19631 (449.0 / 99.0) 6462	(8.71 , 0.93) (N/A , -0.03 , -0.8)	40.6 76.1	0.3292 126.3 128.1	0.0235	N/A			
PFOS	(499.0 / 80.0) 3383212 (499.0 / 99.0) 792271	(9.39 , 1.00) (0.00 , N/A , 0.1)	355.6 415.1	0.2342 112.6 98.1	3.5154	N/A			
PFNS	(549.0 / 80.0) 26051 (549.0 / 99.0) 8273	(9.66 , 1.03) (N/A , -0.09 , -4.6)	22.4 30.2	0.3176 133.4 117.3	0.0239	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(699.0 / 80.0) N/A (699.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) 508291 (427.0 / 81.0) 327150	(7.50 , 1.00) (0.00 , N/A , -0.1)	711.8 412.6	0.6436 87.1 77.4	1.7737	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(512.0 / 219.0) N/A (512.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSE	(630.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-PF3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) 6425 (341.0 / 217.0) 6887	(6.73 , 1.11) (N/A , -0.02 , -0.4)	101.1 31.6	1.0720 59.7 69.4	0.1056	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(295.0 / 201.0) N/A (295.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 193404	(3.63 , N/A) (N/A , 0.00 , N/A)	543.6	N/A	0.8981 [1.0000]	89.8% { 95.7% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 382584	(6.09 , N/A) (N/A , -0.01 , N/A)	267.3	N/A	1.0078 [1.0000]	100.8% { 98.1% }			
13C4_PFOA_IIS	(417.0 / 372.0) 414929	(7.83 , N/A) (N/A , -0.03 , N/A)	670.7	N/A	1.1495 [1.0000]	114.9% { 108.2% }			
13C5_PFNA_IIS	(468.0 / 423.0) 319768	(8.57 , N/A) (N/A , -0.02 , N/A)	405.0	N/A	1.0874 [1.0000]	108.7% { 109.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 397827	(9.25 , N/A) (N/A , -0.02 , N/A)	358.7	N/A	1.1679 [1.0000]	116.8% { 114.2% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 619443	(7.94 , N/A) (N/A , -0.03 , N/A)	694.1	N/A	1.0237 [1.0000]	102.4% { 97.8% }			
13C4_PFOS_IIS	(503.0 / 79.9) 714105	(9.39 , N/A) (N/A , -0.02 , N/A)	279.7	N/A	1.1075 [1.0000]	110.7% { 112.3% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1516997	(3.63 , N/A) (N/A , 0.00 , N/A)	705.2	N/A	7.8126 [8.0000]	97.7% { 97.6% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1050209	(4.94 , N/A) (N/A , 0.01 , N/A)	635.9	N/A	3.6385 [4.0000]	91.0% { 85.6% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 800781	(6.09 , N/A) (N/A , -0.01 , N/A)	603.7	N/A	2.0454 [2.0000]	102.3% { 99.5% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 744641	(7.02 , N/A) (N/A , -0.02 , N/A)	568.6	N/A	2.1895 [2.0000]	109.5% { 96.1% }			
13C8_PFOA_EIS	(421.0 / 376.0) 786567	(7.83 , N/A) (N/A , -0.03 , N/A)	551.2	N/A	1.8528 [2.0000]	92.6% { 106.8% }			
13C9_PFNA_EIS	(472.0 / 427.0) 318558	(8.57 , N/A) (N/A , -0.03 , N/A)	449.8	N/A	0.9588 [1.0000]	95.9% { 99.9% }			
13C6_PFDA_EIS	(519.0 / 474.0) 435706	(9.25 , N/A) (N/A , -0.02 , N/A)	365.7	N/A	0.9067 [1.0000]	90.7% { 114.0% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 527917	(9.69 , N/A) (N/A , -0.01 , N/A)	700.0	N/A	0.8933 [1.0000]	89.3% { 97.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 561412	(9.88 , N/A) (N/A , -0.01 , N/A)	661.7	N/A	0.9520 [1.0000]	95.2% { 97.0% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 283318	(10.11 , N/A) (N/A , -0.01 , N/A)	637.7	N/A	0.7582 [1.0000]	75.8% { 74.9% }			
13C3_PFBs_EIS	(302.0 / 80.0) 1953609	(6.03 , N/A) (N/A , -0.01 , N/A)	485.8	N/A	2.0838 [2.0000]	104.2% { 99.3% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1028165	(7.94 , N/A) (N/A , -0.03 , N/A)	612.9	N/A	2.0254 [2.0000]	101.3% { 103.9% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1652976	(9.39 , N/A) (N/A , -0.02 , N/A)	374.6	N/A	1.9208 [2.0000]	96.0% { 107.6% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 556176	(5.76 , N/A) (N/A , -0.01 , N/A)	534.0	N/A	5.2511 [4.0000]	131.3% { 111.8% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 713955	(7.50 , N/A) (N/A , -0.03 , N/A)	760.2	N/A	5.0945 [4.0000]	127.4% { 122.6% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 776048	(8.92 , N/A) (N/A , -0.01 , N/A)	588.3	N/A	4.3930 [4.0000]	109.8% { 124.5% }			
13C8_PFOA_EIS	(506.0 / 78.0) 1426555	(10.17 , N/A) (N/A , -0.01 , N/A)	884.6	N/A	1.4203 [2.0000]	71.0% { 75.0% }			
D3_NMeFOA_EIS	(515.0 / 169.0) 181140	(10.61 , N/A) (N/A , -0.01 , N/A)	653.1	N/A	0.9537 [2.0000]	47.7% { 48.8% }			
D5_NEtFOA_EIS	(531.0 / 169.0) 196935	(10.69 , N/A) (N/A , -0.01 , N/A)	1178.3	N/A	1.1320 [2.0000]	56.6% { 57.6% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 907515	(9.45 , N/A) (N/A , -0.02 , N/A)	340.6	N/A	3.3516 [4.0000]	83.8% { 90.0% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 899098	(9.65 , N/A) (N/A , -0.01 , N/A)	152.3	N/A	4.1763 [4.0000]	104.4% { 100.6% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 577133	(10.57 , N/A) (N/A , -0.01 , N/A)	681.2	N/A	13.9074 [20.0000]	69.5% { 58.0% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 300806	(10.67 , N/A) (N/A , -0.01 , N/A)	999.1	N/A	15.7193 [20.0000]	78.6% { 64.0% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1676005	(6.43 , N/A) (N/A , -0.02 , N/A)	664.1	N/A	7.6525 [8.0000]	95.7% { 95.9% }			

FORM I

ANALYSIS DATA SHEET

ADIT6-DU08-SON01MI-22DEC

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	22L0126-04
		File ID:	S2022-12-30A (28)
Sampled:	12/15/22 11:32	Prepared:	12/27/22 11:43
		Analyzed:	12/30/22 22:05
Solids:	82.02	Preparation:	EPA 1633
		Dilution:	1
Initial/Final:	5.16 g / 2 ml	Instrument:	Saphira
Batch:	BBL0470	Sequence:	SB04022
		Calibration:	2253011

COMPOUND	CONC. (ug/kg Dry)	LOQ	LOD	DL	Q
PFBA	0.31	0.29	0.19	0.15	
PFPEA	0.91	0.078	0.039	0.021	
PFHXA	0.46	0.039	0.019	0.015	
PFHPA	0.26	0.039	0.019	0.015	
PFOA	0.11	0.039	0.029	0.021	
PFNA	0.049	0.039	0.029	0.021	
PFDA	0.047	0.039	0.029	0.021	
PFUnA	0.038 J	0.039	0.019	0.020	
PFDOA	0.029 U	0.039	0.029	0.022	
PFTRDA	0.019 U	0.039	0.019	0.016	
PFTEDA	0.029 U	0.039	0.029	0.024	
PFBS	0.019 U	0.039	0.019	0.016	
PFPEs	0.019 U	0.039	0.019	0.011	
PFHXS	0.050	0.039	0.019	0.015	
PFHPS	0.019 U	0.039	0.019	0.010	
PFOS	1.6	0.039	0.019	0.0094	
PFNS	0.019 U	0.039	0.019	0.014	
PFDS	0.019 U	0.039	0.019	0.013	
PFDOS	0.019 U	0.039	0.019	0.013	
4:2FTS	0.078 U	0.16	0.078	0.044	
6:2FTS	0.25	0.16	0.078	0.059	
8:2FTS	0.078 U	0.16	0.078	0.049	
PFOSA	0.019 U	0.039	0.019	0.012	
NMeFOSA	0.078 U	0.16	0.078	0.064	
NEtFOSA	0.078 U	0.16	0.078	0.026	
NMeFOSAA	0.019 U	0.039	0.019	0.0097	
NEtFOSAA	0.019 U	0.039	0.019	0.017	
NMeFOSE	0.078 U	0.16	0.078	0.052	
NEtFOSE	0.078 U	0.16	0.078	0.046	
HFPO-DA	0.039 U	0.078	0.039	0.021	

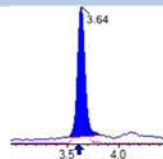
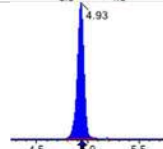
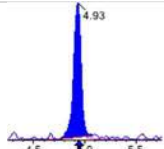
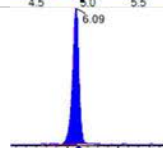
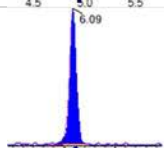
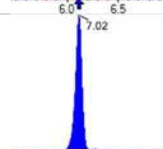
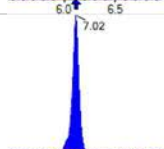
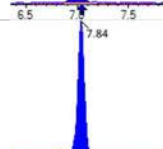
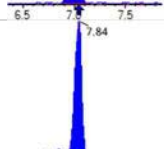
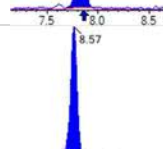
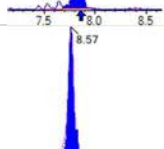
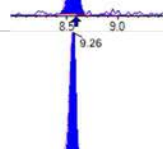
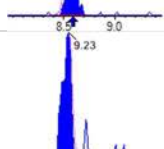
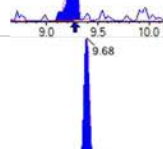
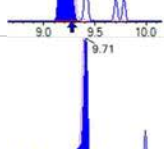
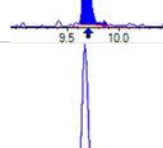
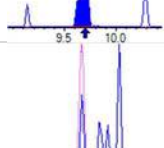
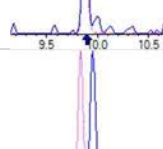
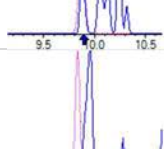
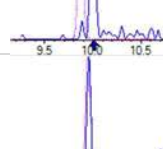
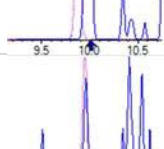
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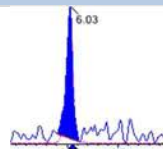
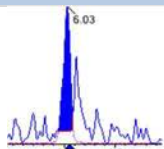
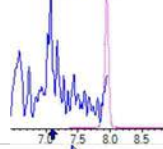
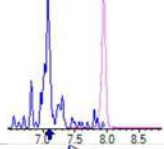
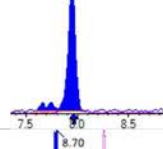
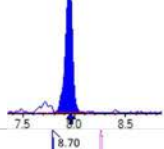
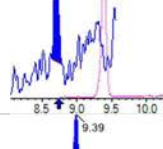
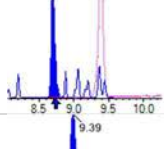
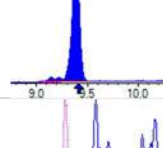
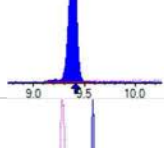
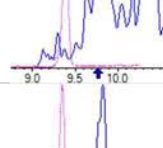
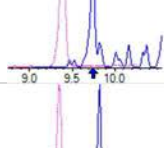
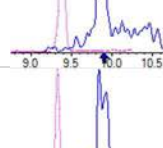
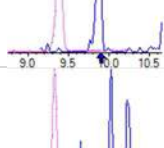
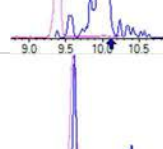
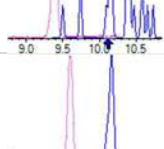
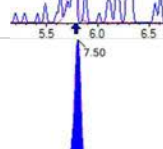
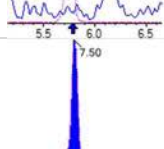
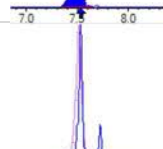
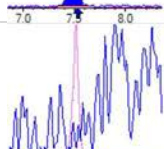


ANALYSIS DATA SHEET

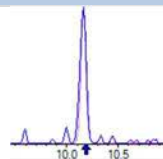
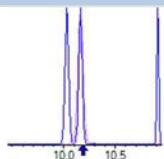
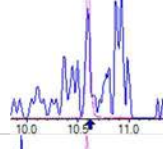
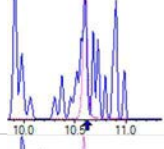
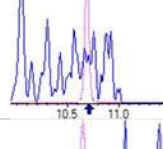
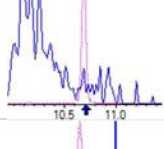
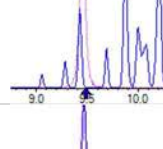
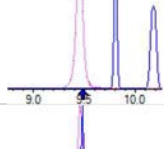
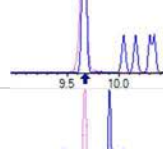
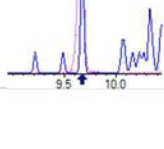
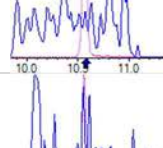
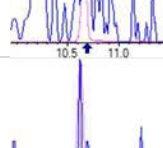
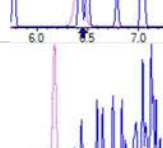
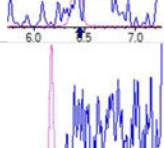
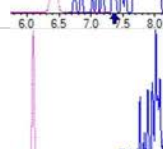
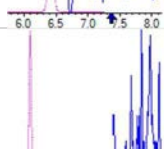
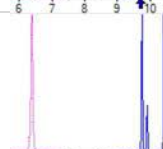
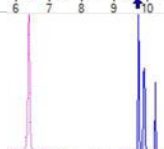
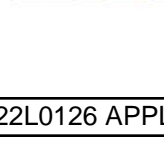
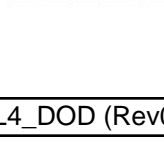
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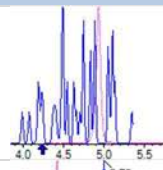
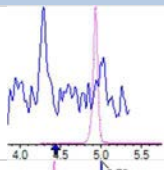
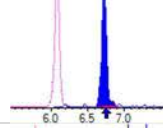
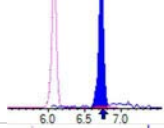
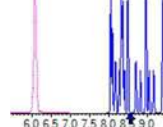
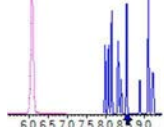
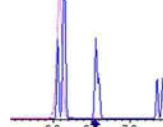
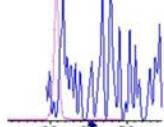
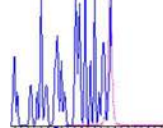
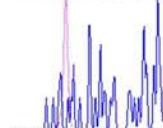
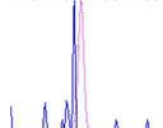
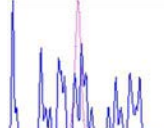
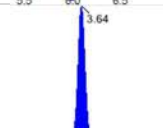
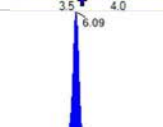
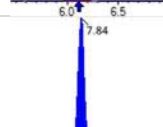
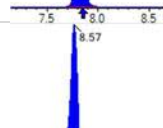
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Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	22L0126-04
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		Analyzed:	12/30/22 22:05
Solids:	82.02	Preparation:	EPA 1633
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Initial/Final:	5.16 g / 2 ml	Instrument:	Saphira
Batch:	BBL0470	Sequence:	SB04022
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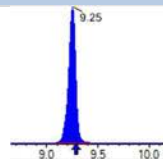
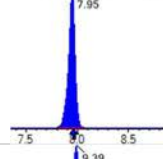
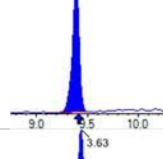
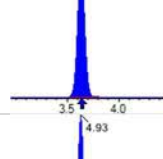
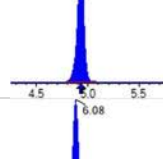
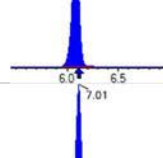
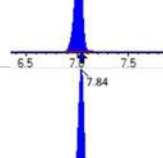
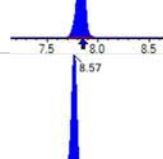
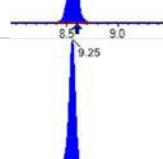
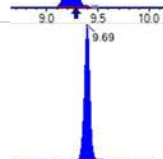
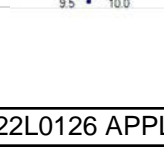
COMPOUND	CONC. (ug/kg Dry)	LOQ	LOD	DL	Q
ADONA	0.039 U	0.078	0.039	0.026	
PFEESA	0.039 U	0.078	0.039	0.017	
PFMPA	0.039 U	0.078	0.039	0.027	
PFMBA	0.039 U	0.078	0.039	0.031	
NFDHA	0.058 U	0.078	0.058	0.048	
9CL-PF3ONS	0.039 U	0.078	0.039	0.023	
11CL-PF3OUDS	0.039 U	0.078	0.039	0.026	
3:3FTCA	0.078 U	0.16	0.078	0.062	
5:3FTCA	0.14 J	0.16	0.078	0.063	
7:3FTCA	0.078 U	0.16	0.078	0.048	

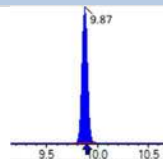
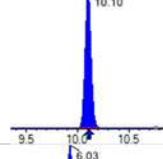
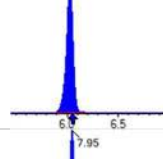
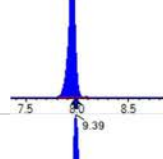
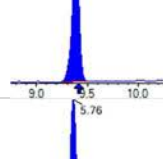
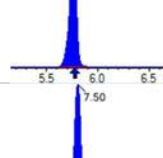
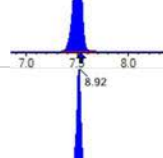
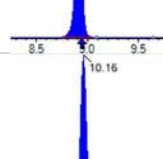
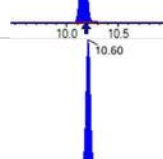
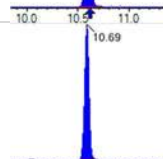
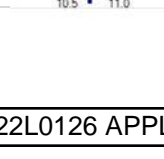
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 140080	(3.64 , 1.00) (0.00 , N/A , 0.0)	205.6	N/A 0.0 0.0	0.7951	N/A			
PFPeA	(263.0 / 219.0) 628468 (263.0 / 69.0) 7600	(4.93 , 1.00) (0.00 , N/A , 0.2)	498.4 105.5	0.0121 117.0 113.0	2.3496	N/A			
PFHxA	(313.0 / 269.0) 435409 (313.0 / 119.0) 39049	(6.09 , 1.00) (0.00 , N/A , 0.0)	371.1 176.6	0.0897 92.1 98.0	1.1823	N/A			
PFHpA	(363.0 / 319.0) 249491 (363.0 / 169.0) 68302	(7.02 , 1.00) (0.00 , N/A , 0.0)	323.7 265.2	0.2738 95.7 97.2	0.6718	N/A			
PFOA	(413.0 / 369.0) 117334 (413.0 / 169.0) 34338	(7.84 , 1.00) (0.00 , N/A , -0.2)	201.4 127.0	0.2927 96.4 87.0	0.2868	N/A			
PFNA	(463.0 / 419.0) 38284 (463.0 / 169.0) 10029	(8.57 , 1.00) (0.00 , N/A , 0.0)	113.8 181.7	0.2620 123.7 131.1	0.1258	N/A			
PFDA	(513.0 / 469.0) 54493 (513.0 / 169.0) 4480	(9.26 , 1.00) (0.01 , N/A , 1.6)	55.6 38.9	0.0822 89.2 90.5	0.1221	N/A			
PFUnA	(563.0 / 519.0) 52749 (563.0 / 169.0) 2949	(9.68 , 1.00) (-0.01 , N/A , -1.4)	95.1 83.5	0.0559 72.7 56.9	0.0975	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

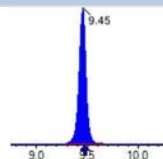
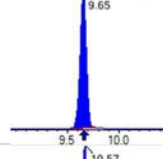
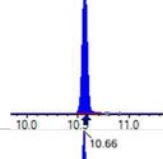
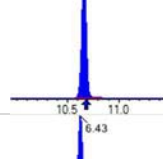
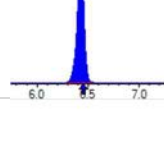
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 8970 (299.0 / 99.0) 3837	(6.03 , 1.00) (0.00 , N/A , -0.3)	32.6 19.7	0.4277 65.1 70.5	0.0160	N/A			
PFPeS	(349.0 / 80.0) N/A (349.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	(399.0 / 80.0) 114354 (399.0 / 99.0) 35733	(7.95 , 1.00) (0.00 , N/A , -0.1)	176.3 242.2	0.3125 95.8 100.0	0.1287	N/A			
PFHpS	(449.0 / 80.0) 9389 (449.0 / 99.0) 2954	(8.70 , 0.93) (N/A , -0.04 , 0.3)	14.0 41.6	0.3146 120.7 122.4	0.0117	N/A			
PFOS	(499.0 / 80.0) 3802666 (499.0 / 99.0) 935795	(9.39 , 1.00) (0.00 , N/A , 0.1)	316.3 691.3	0.2461 118.3 103.1	4.1204	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(699.0 / 80.0) N/A (699.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) 172567 (427.0 / 81.0) 106504	(7.50 , 1.00) (0.00 , N/A , 0.1)	360.9 248.3	0.6172 83.5 74.3	0.6338	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(512.0 / 219.0) N/A (512.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSE	(630.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-PF3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) 20961 (341.0 / 217.0) 38149	(6.73 , 1.11) (N/A , -0.02 , -0.1)	176.2 124.0	1.8200 101.4 117.8	0.3719	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(295.0 / 201.0) N/A (295.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 201059	(3.64 , N/A) (N/A , 0.00 , N/A)	519.5	N/A	0.9336 [1.0000]	93.4% { 99.5% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 368418	(6.09 , N/A) (N/A , -0.01 , N/A)	475.3	N/A	0.9705 [1.0000]	97.1% { 94.5% }			
13C4_PFOA_IIS	(417.0 / 372.0) 425697	(7.84 , N/A) (N/A , -0.02 , N/A)	713.4	N/A	1.1793 [1.0000]	117.9% { 111.0% }			
13C5_PFNA_IIS	(468.0 / 423.0) 348702	(8.57 , N/A) (N/A , -0.02 , N/A)	333.6	N/A	1.1858 [1.0000]	118.6% { 119.6% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 419853	(9.25 , N/A) (N/A , -0.02 , N/A)	419.7	N/A	1.2325 [1.0000]	123.3% { 120.5% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 644688	(7.95 , N/A) (N/A , -0.02 , N/A)	753.8	N/A	1.0654 [1.0000]	106.5% { 101.8% }			
13C4_PFOS_IIS	(503.0 / 79.9) 666338	(9.39 , N/A) (N/A , -0.02 , N/A)	160.8	N/A	1.0334 [1.0000]	103.3% { 104.8% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1508587	(3.63 , N/A) (N/A , 0.00 , N/A)	783.0	N/A	7.4735 [8.0000]	93.4% { 97.0% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1126789	(4.93 , N/A) (N/A , 0.00 , N/A)	693.0	N/A	4.0539 [4.0000]	101.3% { 91.8% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 742252	(6.08 , N/A) (N/A , -0.02 , N/A)	433.1	N/A	1.9688 [2.0000]	98.4% { 92.2% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 708789	(7.01 , N/A) (N/A , -0.02 , N/A)	542.9	N/A	2.1642 [2.0000]	108.2% { 91.5% }			
13C8_PFOA_EIS	(421.0 / 376.0) 768108	(7.84 , N/A) (N/A , -0.02 , N/A)	822.1	N/A	1.7635 [2.0000]	88.2% { 104.3% }			
13C9_PFNA_EIS	(472.0 / 427.0) 315358	(8.57 , N/A) (N/A , -0.02 , N/A)	570.5	N/A	0.8704 [1.0000]	87.0% { 98.9% }			
13C6_PFDA_EIS	(519.0 / 474.0) 450221	(9.25 , N/A) (N/A , -0.02 , N/A)	302.0	N/A	0.8878 [1.0000]	88.8% { 117.8% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 592709	(9.69 , N/A) (N/A , -0.01 , N/A)	626.6	N/A	0.9503 [1.0000]	95.0% { 109.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 617906	(9.87, N/A) (N/A, -0.01, N/A)	858.4	N/A	0.9928 [1.0000]	99.3% { 106.8% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 293848	(10.10, N/A) (N/A, -0.02, N/A)	946.3	N/A	0.7451 [1.0000]	74.5% { 77.7% }			
13C3_PFBs_EIS	(302.0 / 80.0) 1759970	(6.03, N/A) (N/A, -0.01, N/A)	565.8	N/A	1.8038 [2.0000]	90.2% { 89.5% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1026298	(7.95, N/A) (N/A, -0.02, N/A)	600.3	N/A	1.9426 [2.0000]	97.1% { 103.7% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1585112	(9.39, N/A) (N/A, -0.02, N/A)	222.5	N/A	1.9740 [2.0000]	98.7% { 103.2% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 628870	(5.76, N/A) (N/A, -0.01, N/A)	636.9	N/A	5.7049 [4.0000]	142.6% { 126.4% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 678362	(7.50, N/A) (N/A, -0.02, N/A)	518.5	N/A	4.6510 [4.0000]	116.3% { 116.5% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 885958	(8.92, N/A) (N/A, -0.02, N/A)	462.9	N/A	4.8188 [4.0000]	120.5% { 142.1% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 1482074	(10.16, N/A) (N/A, -0.02, N/A)	881.8	N/A	1.5813 [2.0000]	79.1% { 77.9% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 182600	(10.60, N/A) (N/A, -0.02, N/A)	562.5	N/A	1.0303 [2.0000]	51.5% { 49.2% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 178978	(10.69, N/A) (N/A, -0.02, N/A)	782.8	N/A	1.1025 [2.0000]	55.1% { 52.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 1062930	(9.45 , N/A) (N/A , -0.02 , N/A)	384.0	N/A	4.2070 [4.0000]	105.2% { 105.4% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 979787	(9.65 , N/A) (N/A , -0.01 , N/A)	131.5	N/A	4.8774 [4.0000]	121.9% { 109.6% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 559522	(10.57 , N/A) (N/A , -0.02 , N/A)	460.3	N/A	14.4495 [20.0000]	72.2% { 56.2% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 278108	(10.66 , N/A) (N/A , -0.02 , N/A)	663.3	N/A	15.5750 [20.0000]	77.9% { 59.2% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1625600	(6.43 , N/A) (N/A , -0.02 , N/A)	660.5	N/A	7.7078 [8.0000]	96.3% { 93.0% }			

QUALITY CONTROL

SURROGATE SUMMARY SHEET

EPA 1633

Client: AECOM
 Work Order: 22L0126
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
ADIT6-DU05-SON01MI-22DEC (22L0126-01) . ug/kg Dry		Lab File ID: S2022-12-30A (22)		Analyzed: 12/30/22 20:47
13C4-PFBA	3.20	96.9	20 - 150	
13C5-PFPEA	1.60	90.8	20 - 150	
13C5-PFHXA	0.800	95.4	20 - 150	
13C4-PFHFA	0.800	94.5	20 - 150	
13C8-PFOA	0.800	93.7	20 - 150	
13C9-PFNA	0.400	83.0	20 - 150	
13C6-PFDA	0.400	98.3	20 - 150	
13C7-PFUnA	0.400	96.4	20 - 150	
13C2-PFDOA	0.400	94.2	20 - 150	
13C2-PFTEDA	0.400	103	20 - 150	
13C3-PFBS	0.800	98.1	20 - 150	
13C3-PFHXS	0.800	93.0	20 - 150	
13C8-PFOS	0.800	97.4	20 - 150	
13C2-4:2FTS	1.60	136	20 - 150	
13C2-6:2FTS	1.60	120	20 - 150	
13C2-8:2FTS	1.60	75.5	20 - 150	
13C8-PFOSA	0.800	79.0	20 - 150	
D5-NETFOSA	0.800	48.3	20 - 150	
D3-NMEFOSA	0.800	44.1	20 - 150	
D3-NMEFOSAA	1.60	88.0	20 - 150	
D5-NETFOSAA	1.60	122	20 - 150	
D7-NMEFOSE	8.00	72.0	20 - 150	
D9-NETFOSSE	8.00	81.2	20 - 150	
13C3-HFPO-DA	3.20	92.6	20 - 150	

SURROGATE SUMMARY SHEET

EPA 1633

Client: AECOM
 Work Order: 22L0126
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
ADIT6-DU06-SON01MI-22DEC (22L0126-02) . ug/kg Dry		Lab File ID: S2022-12-30A (24)		Analyzed: 12/30/22 21:13
13C4-PFBA	3.11	92.7	20 - 150	
13C5-PFPEA	1.55	98.4	20 - 150	
13C5-PFHXA	0.777	103	20 - 150	
13C4-PFHXA	0.777	103	20 - 150	
13C8-PFOA	0.777	103	20 - 150	
13C9-PFNA	0.388	79.8	20 - 150	
13C6-PFDA	0.388	86.5	20 - 150	
13C7-PFUnA	0.388	98.4	20 - 150	
13C2-PFDOA	0.388	74.6	20 - 150	
13C2-PFTEDA	0.388	83.6	20 - 150	
13C3-PFBS	0.777	102	20 - 150	
13C3-PFHXS	0.777	95.9	20 - 150	
13C8-PFOS	0.777	101	20 - 150	
13C2-4:2FTS	1.55	130	20 - 150	
13C2-6:2FTS	1.55	122	20 - 150	
13C2-8:2FTS	1.55	110	20 - 150	
13C8-PFOSA	0.777	82.2	20 - 150	
D5-NETFOSA	0.777	53.0	20 - 150	
D3-NMEFOSA	0.777	46.4	20 - 150	
D3-NMEFOSAA	1.55	84.0	20 - 150	
D5-NETFOSAA	1.55	121	20 - 150	
D7-NMEFOSE	7.77	64.5	20 - 150	
D9-NETFOSSE	7.77	79.8	20 - 150	
13C3-HFPO-DA	3.11	93.2	20 - 150	

SURROGATE SUMMARY SHEET

EPA 1633

Client: AECOM
 Work Order: 22L0126
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
ADIT6-DU07-SON01MI-22DEC (22L0126-03) . ug/kg Dry		Lab File ID: S2022-12-30A (26)		Analyzed: 12/30/22 21:39
13C4-PFBA	3.03	97.7	20 - 150	
13C5-PFPEA	1.52	91.0	20 - 150	
13C5-PFHXA	0.758	102	20 - 150	
13C4-PFHXA	0.758	109	20 - 150	
13C8-PFOA	0.758	92.6	20 - 150	
13C9-PFNA	0.379	95.9	20 - 150	
13C6-PFDA	0.379	90.7	20 - 150	
13C7-PFUnA	0.379	89.3	20 - 150	
13C2-PFDOA	0.379	95.2	20 - 150	
13C2-PFTEDA	0.379	75.8	20 - 150	
13C3-PFBS	0.758	104	20 - 150	
13C3-PFHXS	0.758	101	20 - 150	
13C8-PFOS	0.758	96.0	20 - 150	
13C2-4:2FTS	1.52	131	20 - 150	
13C2-6:2FTS	1.52	127	20 - 150	
13C2-8:2FTS	1.52	110	20 - 150	
13C8-PFOSA	0.758	71.0	20 - 150	
D5-NETFOSA	0.758	56.6	20 - 150	
D3-NMEFOSA	0.758	47.7	20 - 150	
D3-NMEFOSAA	1.52	83.8	20 - 150	
D5-NETFOSAA	1.52	104	20 - 150	
D7-NMEFOSE	7.58	69.5	20 - 150	
D9-NETFOSSE	7.58	78.6	20 - 150	
13C3-HFPO-DA	3.03	95.7	20 - 150	

SURROGATE SUMMARY SHEET

EPA 1633

Client: AECOM
 Work Order: 22L0126
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
ADIT6-DU08-SON01MI-22DEC (22L0126-04) . ug/kg Dry		Lab File ID: S2022-12-30A (28)		Analyzed: 12/30/22 22:05
13C4-PFBA	3.10	93.4	20 - 150	
13C5-PFPEA	1.55	101	20 - 150	
13C5-PFHXA	0.775	98.4	20 - 150	
13C4-PFHXA	0.775	108	20 - 150	
13C8-PFOA	0.775	88.2	20 - 150	
13C9-PFNA	0.388	87.0	20 - 150	
13C6-PFDA	0.388	88.8	20 - 150	
13C7-PFUnA	0.388	95.0	20 - 150	
13C2-PFDOA	0.388	99.3	20 - 150	
13C2-PFTEDA	0.388	74.5	20 - 150	
13C3-PFBS	0.775	90.2	20 - 150	
13C3-PFHXS	0.775	97.1	20 - 150	
13C8-PFOS	0.775	98.7	20 - 150	
13C2-4:2FTS	1.55	143	20 - 150	
13C2-6:2FTS	1.55	116	20 - 150	
13C2-8:2FTS	1.55	120	20 - 150	
13C8-PFOSA	0.775	79.1	20 - 150	
D5-NETFOSA	0.775	55.1	20 - 150	
D3-NMEFOSA	0.775	51.5	20 - 150	
D3-NMEFOSAA	1.55	105	20 - 150	
D5-NETFOSAA	1.55	122	20 - 150	
D7-NMEFOSE	7.75	72.2	20 - 150	
D9-NETFOSSE	7.75	77.9	20 - 150	
13C3-HFPO-DA	3.10	96.3	20 - 150	

SURROGATE SUMMARY SHEET

EPA 1633

Client: AECOM
 Work Order: 22L0126
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
Blank (BBL0470-BLK1) ug/kg Dry		Lab File ID: S2022-12-30A (17)		Analyzed: 12/30/22 19:43
13C4-PFBA	3.20	104	20 - 150	
13C5-PFPEA	1.60	98.7	20 - 150	
13C5-PFHXA	0.800	101	20 - 150	
13C4-PFHXA	0.800	106	20 - 150	
13C8-PFOA	0.800	98.1	20 - 150	
13C9-PFNA	0.400	107	20 - 150	
13C6-PFDA	0.400	94.1	20 - 150	
13C7-PFUnA	0.400	102	20 - 150	
13C2-PFDOA	0.400	103	20 - 150	
13C2-PFTEDA	0.400	91.1	20 - 150	
13C3-PFBS	0.800	109	20 - 150	
13C3-PFHXS	0.800	99.2	20 - 150	
13C8-PFOS	0.800	90.9	20 - 150	
13C2-4:2FTS	1.60	160	20 - 150	*
13C2-6:2FTS	1.60	134	20 - 150	
13C2-8:2FTS	1.60	103	20 - 150	
13C8-PFOSA	0.800	78.0	20 - 150	
D5-NETFOSA	0.800	5.33	20 - 150	*
D3-NMEFOSA	0.800	4.74	20 - 150	*
D3-NMEFOSAA	1.60	104	20 - 150	
D5-NETFOSAA	1.60	112	20 - 150	
D7-NMEFOSE	8.00	49.6	20 - 150	
D9-NETFOSSE	8.00	63.5	20 - 150	
13C3-HFPO-DA	3.20	98.8	20 - 150	

SURROGATE SUMMARY SHEET

EPA 1633

Client: AECOM
 Work Order: 22L0126
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
LCS (BBL0470-BS1) ug/kg Dry		Lab File ID: S2022-12-30A (18)		Analyzed: 12/30/22 19:56
13C4-PFBA	3.20	100	20 - 150	
13C5-PFPEA	1.60	103	20 - 150	
13C5-PFHXA	0.800	107	20 - 150	
13C4-PFHXA	0.800	106	20 - 150	
13C8-PFOA	0.800	107	20 - 150	
13C9-PFNA	0.400	89.6	20 - 150	
13C6-PFDA	0.400	104	20 - 150	
13C7-PFUnA	0.400	115	20 - 150	
13C2-PFDOA	0.400	106	20 - 150	
13C2-PFTEDA	0.400	90.8	20 - 150	
13C3-PFBS	0.800	118	20 - 150	
13C3-PFHXS	0.800	105	20 - 150	
13C8-PFOS	0.800	101	20 - 150	
13C2-4:2FTS	1.60	144	20 - 150	
13C2-6:2FTS	1.60	133	20 - 150	
13C2-8:2FTS	1.60	101	20 - 150	
13C8-PFOSA	0.800	85.7	20 - 150	
D5-NETFOSA	0.800	7.21	20 - 150	*
D3-NMEFOSA	0.800	6.60	20 - 150	*
D3-NMEFOSAA	1.60	112	20 - 150	
D5-NETFOSAA	1.60	107	20 - 150	
D7-NMEFOSE	8.00	52.4	20 - 150	
D9-NETFOSE	8.00	60.0	20 - 150	
13C3-HFPO-DA	3.20	99.8	20 - 150	

SURROGATE SUMMARY SHEET

EPA 1633

Client: AECOM
 Work Order: 22L0126
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
MRL Check (BBL0470-MRL1) ug/kg Dry		Lab File ID: S2022-12-30A (19)		Analyzed: 12/30/22 20:09
13C4-PFBA	3.20	103	20 - 150	
13C5-PFPEA	1.60	100	20 - 150	
13C5-PFHXA	0.800	102	20 - 150	
13C4-PFHXA	0.800	102	20 - 150	
13C8-PFOA	0.800	103	20 - 150	
13C9-PFNA	0.400	95.3	20 - 150	
13C6-PFDA	0.400	85.1	20 - 150	
13C7-PFUnA	0.400	82.9	20 - 150	
13C2-PFDOA	0.400	87.3	20 - 150	
13C2-PFTEDA	0.400	81.0	20 - 150	
13C3-PFBS	0.800	102	20 - 150	
13C3-PFHXS	0.800	94.4	20 - 150	
13C8-PFOS	0.800	90.8	20 - 150	
13C2-4:2FTS	1.60	142	20 - 150	
13C2-6:2FTS	1.60	117	20 - 150	
13C2-8:2FTS	1.60	108	20 - 150	
13C8-PFOSA	0.800	78.9	20 - 150	
D5-NETFOSA	0.800	8.20	20 - 150	*
D3-NMEFOSA	0.800	7.61	20 - 150	*
D3-NMEFOSAA	1.60	97.6	20 - 150	
D5-NETFOSAA	1.60	108	20 - 150	
D7-NMEFOSE	8.00	58.3	20 - 150	
D9-NETFOSE	8.00	58.8	20 - 150	
13C3-HFPO-DA	3.20	96.7	20 - 150	

SURROGATE SUMMARY SHEET

EPA 1633

Client: AECOM
 Work Order: 22L0126
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
Matrix Spike (BBL0470-MS1) ug/kg Dry		Lab File ID: S2022-12-30A (20)		Analyzed: 12/30/22 20:21
13C4-PFBA	3.20	100	20 - 150	
13C5-PFPEA	1.60	93.8	20 - 150	
13C5-PFHXA	0.800	90.3	20 - 150	
13C4-PFHFA	0.800	93.1	20 - 150	
13C8-PFOA	0.800	99.3	20 - 150	
13C9-PFNA	0.400	96.6	20 - 150	
13C6-PFDA	0.400	101	20 - 150	
13C7-PFUnA	0.400	102	20 - 150	
13C2-PFDOA	0.400	108	20 - 150	
13C2-PFTEDA	0.400	107	20 - 150	
13C3-PFBS	0.800	97.9	20 - 150	
13C3-PFHXS	0.800	90.5	20 - 150	
13C8-PFOS	0.800	101	20 - 150	
13C2-4:2FTS	1.60	133	20 - 150	
13C2-6:2FTS	1.60	113	20 - 150	
13C2-8:2FTS	1.60	73.2	20 - 150	
13C8-PFOSA	0.800	87.5	20 - 150	
D5-NETFOSA	0.800	61.1	20 - 200	
D3-NMEFOSA	0.800	53.3	20 - 200	
D3-NMEFOSAA	1.60	99.5	20 - 150	
D5-NETFOSAA	1.60	107	20 - 150	
D7-NMEFOSE	8.00	82.0	20 - 200	
D9-NETFOSSE	8.00	88.4	20 - 200	
13C3-HFPO-DA	3.20	91.9	20 - 150	

SURROGATE SUMMARY SHEET

EPA 1633

Client: AECOM
 Work Order: 22L0126
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
Matrix Spike Dup (BBL0470-MSD1) ug/kg Dry		Lab File ID: S2022-12-30A (21)		Analyzed: 12/30/22 20:34
13C4-PFBA	3.12	1.72	20 - 150	*
13C5-PFPEA	1.56	1.55	20 - 150	*
13C5-PFHXA	0.780	1.65	20 - 150	*
13C4-PFHFA	0.780	1.85	20 - 150	*
13C8-PFOA	0.780	2.02	20 - 150	*
13C9-PFNA	0.390	2.16	20 - 150	*
13C6-PFDA	0.390	3.71	20 - 150	*
13C7-PFUnA	0.390	6.87	20 - 150	*
13C2-PFDOA	0.390	9.43	20 - 150	*
13C2-PFTEDA	0.390	31.6	20 - 150	
13C3-PFBS	0.780	1.57	20 - 150	*
13C3-PFHXS	0.780	2.01	20 - 150	*
13C8-PFOS	0.780	2.58	20 - 150	*
13C2-4:2FTS	1.56	2.05	20 - 150	*
13C2-6:2FTS	1.56	2.23	20 - 150	*
13C2-8:2FTS	1.56	3.67	20 - 150	*
13C8-PFOSA	0.780	2.58	20 - 150	*
D5-NETFOSA	0.780	4.46	20 - 200	*
D3-NMEFOSA	0.780	3.83	20 - 200	*
D3-NMEFOSAA	1.56	3.14	20 - 150	*
D5-NETFOSAA	1.56	4.18	20 - 150	*
D7-NMEFOSE	7.80	12.5	20 - 200	*
D9-NETFOSE	7.80	15.8	20 - 200	*
13C3-HFPO-DA	3.12	1.45	20 - 150	*

METHOD BLANK SUMMARY

EPA 1633

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Blank ID:	BBL0470-BLK1	Batch:	BBL0470
		Prepared:	12/27/2022 11:43

Client Sample ID	Laboratory Sample ID	Lab File ID	Time Analyzed
LCS	BBL0470-BS1	S2022-12-30A (18)	19:56
MRL Check	BBL0470-MRL1	S2022-12-30A (19)	20:09
Matrix Spike	BBL0470-MS1	S2022-12-30A (20)	20:21
Matrix Spike Dup	BBL0470-MSD1	S2022-12-30A (21)	20:34
ADIT6-DU05-SON01MI-22DEC	22L0126-01	S2022-12-30A (22)	20:47
ADIT6-DU06-SON01MI-22DEC	22L0126-02	S2022-12-30A (24)	21:13
ADIT6-DU07-SON01MI-22DEC	22L0126-03	S2022-12-30A (26)	21:39
ADIT6-DU08-SON01MI-22DEC	22L0126-04	S2022-12-30A (28)	22:05

ANALYSIS DATA SHEET

Blank

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	BBL0470-BLK1
Sampled:		File ID:	S2022-12-30A (17)
		Prepared:	12/27/22 11:43
		Analyzed:	12/30/22 19:43
Solids:		Preparation:	EPA 1633
		Dilution:	1
Batch:	BBL0470	Sequence:	SB04022
		Calibration:	2253011
		Instrument:	Saphira
Column:	1		

COMPOUND	CONC. (ug/kg Dry)	LOQ	LOD	DL	Q
PFBA	0.20 U	0.30	0.20	0.15	U
PFPEA	0.040 U	0.080	0.040	0.022	U
PFHXA	0.020 U	0.040	0.020	0.015	U
PFHPA	0.020 U	0.040	0.020	0.015	U
PFOA	0.030 U	0.040	0.030	0.021	U
PFNA	0.030 U	0.040	0.030	0.022	U
PFDA	0.030 U	0.040	0.030	0.022	U
PFUnA	0.020 U	0.040	0.020	0.020	U
PFDOA	0.030 U	0.040	0.030	0.023	U
PFTRDA	0.020 U	0.040	0.020	0.016	U
PFTEDA	0.030 U	0.040	0.030	0.025	U
PFBS	0.020 U	0.040	0.020	0.016	U
PFPEs	0.020 U	0.040	0.020	0.012	U
PFHXS	0.020 U	0.040	0.020	0.015	U
PFHPS	0.020 U	0.040	0.020	0.011	U
PFOS	0.020 U	0.040	0.020	0.0097	U
PFNS	0.020 U	0.040	0.020	0.015	U
PFDS	0.020 U	0.040	0.020	0.014	U
PFDOS	0.020 U	0.040	0.020	0.013	U
4:2FTS	0.080 U	0.16	0.080	0.045	U
6:2FTS	0.080 U	0.16	0.080	0.061	U
8:2FTS	0.080 U	0.16	0.080	0.051	U
PFOSA	0.020 U	0.040	0.020	0.012	U
NMeFOSA	0.080 U	0.16	0.080	0.066	U
NEtFOSA	0.080 U	0.16	0.080	0.027	U
NMeFOSAA	0.020 U	0.040	0.020	0.010	U
NEtFOSAA	0.020 U	0.040	0.020	0.018	U
NMeFOSE	0.080 U	0.16	0.080	0.054	U
NEtFOSE	0.080 U	0.16	0.080	0.047	U
HFPO-DA	0.040 U	0.080	0.040	0.022	U

ANALYSIS DATA SHEET

Blank

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	BBL0470-BLK1
Sampled:		File ID:	S2022-12-30A (17)
		Prepared:	12/27/22 11:43
Solids:		Analyzed:	12/30/22 19:43
		Dilution:	1
Batch:	BBL0470	Preparation:	EPA 1633
Column:	1	Sequence:	SB04022
		Calibration:	2253011
		Instrument:	Saphira

COMPOUND	CONC. (ug/kg Dry)	LOQ	LOD	DL	Q
ADONA	0.040 U	0.080	0.040	0.026	U
PFEESA	0.040 U	0.080	0.040	0.017	U
PFMPA	0.040 U	0.080	0.040	0.028	U
PFMBA	0.040 U	0.080	0.040	0.032	U
NFDHA	0.060 U	0.080	0.060	0.049	U
9CL-PF3ONS	0.040 U	0.080	0.040	0.024	U
11CL-PF3OUDS	0.040 U	0.080	0.040	0.027	U
3:3FTCA	0.080 U	0.16	0.080	0.064	U
5:3FTCA	0.080 U	0.16	0.080	0.065	U
7:3FTCA	0.080 U	0.16	0.080	0.050	U

LCS / LCS DUPLICATE RECOVERY

EPA 1633

Laboratory: APPL, LLC

Work Order: 22L0126

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Matrix: Solid

Preparation: EPA 1633

Batch: BBL0470

Laboratory ID: BBL0470-BS1

Column:

ANALYTE	SPIKE ADDED (ug/kg Dry)	LCS CONCENTRATION (ug/kg Dry)	LCS % REC.	QC LIMITS REC.
PFBA	1.60	1.59	99.3	40 - 150
PFPEA	0.800	0.797	99.6	40 - 150
PFHXA	0.400	0.378	94.5	40 - 150
PFHPA	0.400	0.383	95.8	40 - 150
PFOA	0.400	0.370	92.5	40 - 150
PFNA	0.400	0.397	99.2	40 - 150
PFDA	0.400	0.409	102	40 - 150
PFUnA	0.400	0.376	94.1	40 - 150
PFDOA	0.400	0.388	96.9	40 - 150
PFTTDA	0.400	0.389	97.3	40 - 150
PFTEDA	0.400	0.394	98.6	40 - 150
PFBS	0.354	0.336	94.9	40 - 150
PFPEs	0.376	0.381	101	40 - 150
PFHXS	0.366	0.350	95.5	40 - 150
PFHPS	0.382	0.357	93.6	40 - 150
PFOS	0.372	0.370	99.5	40 - 150
PFNS	0.384	0.372	96.9	40 - 150
PFDS	0.386	0.347	90.0	40 - 150
PFDOS	0.388	0.444	114	40 - 150
4:2FTS	1.50	1.63	109	40 - 150
6:2FTS	1.52	1.45	95.2	40 - 150
8:2FTS	1.54	1.55	101	40 - 150
PFOSA	0.400	0.381	95.2	40 - 150
NMeFOSA	1.60	1.21	75.8	40 - 150
NEtFOSA	1.60	1.62	101	40 - 150
NMeFOSAA	0.400	0.405	101	40 - 150
NEtFOSAA	0.400	0.429	107	40 - 150
NMeFOSE	1.60	1.67	104	40 - 150
NEtFOSE	1.60	1.48	92.6	40 - 150
HFPO-DA	0.800	0.747	93.4	40 - 150
ADONA	0.756	0.805	107	40 - 150
PFEESA	0.712	0.701	98.4	40 - 150
PFMPA	0.800	0.717	89.6	40 - 150
PFMBA	0.800	0.811	101	40 - 150

LCS / LCS DUPLICATE RECOVERY

EPA 1633

Laboratory: APPL, LLC

Work Order: 22L0126

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Matrix: Solid

Preparation: EPA 1633

Batch: BBL0470

Laboratory ID: BBL0470-BS1

Column:

ANALYTE	SPIKE ADDED (ug/kg Dry)	LCS CONCENTRATION (ug/kg Dry)	LCS % REC.	QC LIMITS REC.
NFDHA	0.800	0.756	94.5	40 - 150
9CL-PF3ONS	0.748	0.774	104	40 - 150
11CL-PF3OUDS	0.756	0.816	108	40 - 150
3:3FTCA	1.60	1.48	92.6	40 - 150
5:3FTCA	1.60	1.51	94.1	40 - 150
7:3FTCA	1.60	1.09	68.4	40 - 150

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

ADIT6-DU05-SON01MI-22DEC

Laboratory: APPL, LLC

Work Order: 22L0126

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Matrix: Solid

Analysis: EPA 1633

Batch: BBL0470

Preparation: EPA 1633

% Solids: 79.91

Laboratory ID: BBL0470-MS1

Column:

Sample Lab ID: 22L0126-01

ANALYTE	SPIKE ADDED (ug/kg Dry)	SAMPLE CONCENTRATION (ug/kg Dry)	MS CONCENTRATION (ug/kg Dry)	MS % REC.	QC LIMITS REC.
PFBA	1.60	0.339	2.10	110	40 - 150
PFPEA	0.800	0.894	2.04	144	40 - 150
PFHXA	0.400	0.930	1.65	181	* 40 - 150
PFHPA	0.400	0.225	0.697	118	40 - 150
PFOA	0.400	0.0656	0.525	115	40 - 150
PFNA	0.400	ND	0.454	114	40 - 150
PFDA	0.400	ND	0.479	120	40 - 150
PFUnA	0.400	ND	0.470	118	40 - 150
PFDOA	0.400	ND	0.414	103	40 - 150
PFTRDA	0.400	ND	0.454	113	40 - 150
PFTEDA	0.400	ND	0.346	86.5	40 - 150
PFBS	0.354	0.0163	0.415	113	40 - 150
PFPEs	0.376	0.0177	0.453	116	40 - 150
PFHXS	0.366	0.203	0.683	131	40 - 150
PFHPS	0.382	ND	0.375	98.3	40 - 150
PFOS	0.372	0.723	1.23	137	40 - 150
PFNS	0.384	ND	0.402	105	40 - 150
PFDS	0.386	ND	0.407	106	40 - 150
PFDOS	0.388	ND	0.413	106	40 - 150
4:2FTS	1.50	ND	1.86	124	40 - 150
6:2FTS	1.52	11.4	13.8	156	* 40 - 150
8:2FTS	1.54	ND	1.73	113	40 - 150
PFOSA	0.400	ND	0.400	100	40 - 150
NMeFOSA	1.60	ND	1.76	110	40 - 150
NEtFOSA	1.60	ND	1.72	108	40 - 150
NMeFOSAA	0.400	ND	0.375	93.7	40 - 150
NEtFOSAA	0.400	ND	0.416	104	40 - 150
NMeFOSE	1.60	ND	1.66	104	40 - 150
NEtFOSE	1.60	ND	2.03	127	40 - 150
HFPO-DA	0.800	ND	0.799	99.9	40 - 150
ADONA	0.756	ND	0.870	115	40 - 150

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

ADIT6-DU05-SON01MI-22DEC

Laboratory: APPL, LLC

Work Order: 22L0126

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Matrix: Solid

Analysis: EPA 1633

Batch: BBL0470

Preparation: EPA 1633

% Solids: 79.91

Laboratory ID: BBL0470-MS1

Column:

Sample Lab ID: 22L0126-01

ANALYTE	SPIKE ADDED (ug/kg Dry)	SAMPLE CONCENTRATION (ug/kg Dry)	MS CONCENTRATION (ug/kg Dry)	MS % REC.	QC LIMITS REC.
PFEESA	0.712	ND	0.800	112	40 - 150
PFMPA	0.800	ND	0.783	97.9	40 - 150
PFMBA	0.800	ND	0.851	106	40 - 150
NFDHA	0.800	ND	0.828	104	40 - 150
9CL-PF3ONS	0.748	ND	0.852	114	40 - 150
11CL-PF3OUDS	0.756	ND	0.878	116	40 - 150
3:3FTCA	1.60	ND	1.38	86.1	40 - 150
5:3FTCA	1.60	0.140	1.76	101	40 - 150
7:3FTCA	1.60	ND	1.22	76.3	40 - 150

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

ADIT6-DU05-SON01MI-22DEC

Laboratory: APPL, LLC

Work Order: 22L0126

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Matrix: Solid

Analysis: EPA 1633

Batch: BBL0470

Preparation: EPA 1633

% Solids: 79.91

Laboratory ID: BBL0470-MSD1

Column:

Sample Lab ID: 22L0126-01

ANALYTE	SPIKE ADDED (ug/kg Dry)	MSD CONCENTRATION (ug/kg Dry)	MSD % REC. #	% RPD	QC LIMITS	
					RPD	REC.
PFBA	1.56	2.60	145	21.6	30	40 - 150
PFPEA	0.780	1.76	111	14.8	30	40 - 150
PFHXA	0.390	1.66	188	* 0.632	30	40 - 150
PFHPA	0.390	0.702	122	0.732	30	40 - 150
PFOA	0.390	0.603	138	13.8	30	40 - 150
PFNA	0.390	0.451	116	0.668	30	40 - 150
PFDA	0.390	0.410	105	15.6	30	40 - 150
PFUnA	0.390	0.453	116	3.80	30	40 - 150
PFDOA	0.390	0.498	128	18.6	30	40 - 150
PFTRDA	0.390	1.22	313	* 91.5	* 30	40 - 150
PFTEDA	0.390	0.485	125	33.6	* 30	40 - 150
PFBS	0.345	0.368	102	12.1	30	40 - 150
PFPEs	0.366	0.342	88.6	27.8	30	40 - 150
PFHXS	0.357	0.490	80.4	32.9	* 30	40 - 150
PFHPS	0.372	0.279	74.8	29.6	30	40 - 150
PFOS	0.363	1.42	193	* 14.1	30	40 - 150
PFNS	0.374	0.750	200	* 60.4	* 30	40 - 150
PFDS	0.376	1.42	378	* 111	* 30	40 - 150
PFDOS	0.378	5.33	1410	* 171	* 30	40 - 150
4:2FTS	1.46	1.84	126	1.08	30	40 - 150
6:2FTS	1.48	16.9	367	* 20.0	30	40 - 150
8:2FTS	1.50	1.06	70.9	48.2	* 30	40 - 150
PFOSA	0.390	0.422	108	5.35	30	40 - 150
NMeFOSA	1.56	1.49	95.8	16.6	30	40 - 150
NEtFOSA	1.56	1.77	114	3.02	30	40 - 150
NMeFOSAA	0.390	0.501	129	28.8	30	40 - 150
NEtFOSAA	0.390	0.264	67.6	44.9	* 30	40 - 150
NMeFOSE	1.56	1.88	120	12.0	30	40 - 150

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

ADIT6-DU05-SON01MI-22DEC

Laboratory: APPL, LLC

Work Order: 22L0126

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Matrix: Solid

Analysis: EPA 1633

Batch: BBL0470

Preparation: EPA 1633

% Solids: 79.91

Laboratory ID: BBL0470-MSD1

Column:

Sample Lab ID: 22L0126-01

ANALYTE	SPIKE ADDED (ug/kg Dry)	MSD CONCENTRATION (ug/kg Dry)	MSD % REC. #	% RPD	QC LIMITS	
					RPD	REC.
NEtFOSE	1.56	2.02	130	0.478	30	40 - 150
HFPO-DA	0.780	0.859	110	7.22	30	40 - 150
ADONA	0.737	0.728	98.8	17.7	30	40 - 150
PFEESA	0.694	0.687	99.0	15.1	30	40 - 150
PFMPA	0.780	0.673	86.3	15.1	30	40 - 150
PFMBA	0.780	0.810	104	4.96	30	40 - 150
NFDHA	0.780	0.585	75.0	34.5 *	30	40 - 150
9CL-PF3ONS	0.729	1.68	230 *	65.3 *	30	40 - 150
11CL-PF3OUDS	0.737	5.03	682 *	140 *	30	40 - 150
3:3FTCA	1.56	0.966	62.0	35.1 *	30	40 - 150
5:3FTCA	1.56	2.10	126	17.7	30	40 - 150
7:3FTCA	1.56	1.70	109	32.8 *	30	40 - 150

CALIBRATION SUMMARY

Analyte	(Q1 / Q3)	Internal Standard	Multiplier	AcidFactor	Function	Qualifier
PFBA	(213.0 / 169.0)	13C4_PFBA_EIS	4.0000	1.0000	y = 0.41929 x (std. dev. = 0.02329) (weighting: None)	%RSE=5.6
PFPeA	(263.0 / 219.0)	13C5_PFPeA_EIS	2.0000	1.0000	y = 0.42720 x (std. dev. = 0.02079) (weighting: None)	%RSE=4.9
PFHxA	(313.0 / 269.0)	13C5_PFHxA_EIS	1.0000	1.0000	y = 0.45552 x (std. dev. = 0.02835) (weighting: None)	%RSE=6.2
PFHpA	(363.0 / 319.0)	13C4_PFHpA_EIS	1.0000	1.0000	y = 0.47886 x (std. dev. = 0.05269) (weighting: None)	%RSE=11.0
PFOA	(413.0 / 369.0)	13C8_PFOA_EIS	1.0000	1.0000	y = 0.46448 x (std. dev. = 0.02628) (weighting: None)	%RSE=5.7
PFNA	(463.0 / 419.0)	13C9_PFNA_EIS	1.0000	1.0000	y = 0.90558 x (std. dev. = 0.04258) (weighting: None)	%RSE=4.7
PFDA	(513.0 / 469.0)	13C6_PFDA_EIS	1.0000	1.0000	y = 0.89061 x (std. dev. = 0.09718) (weighting: None)	%RSE=10.9
PFUnA	(563.0 / 519.0)	13C7_PFUnA_EIS	1.0000	1.0000	y = 0.79188 x (std. dev. = 0.04851) (weighting: None)	%RSE=6.1
PFDoA	(613.0 / 569.0)	13C2_PFDoA_EIS	1.0000	1.0000	y = 0.85703 x (std. dev. = 0.09108) (weighting: None)	%RSE=10.6
PFTTrDA	(663.0 / 619.0)	13C2_PFDoA_EIS	1.0000	1.0000	y = 0.72441 x (std. dev. = 0.05281) (weighting: None)	%RSE=7.3
PFTeDA	(713.0 / 669.0)	13C2_PFTeDA_EIS	1.0000	1.0000	y = 0.90826 x (std. dev. = 0.10286) (weighting: None)	%RSE=11.3
PFBS	(299.0 / 80.0)	13C3_PFBS_EIS	1.0000	0.8847	y = 0.24675 x (std. dev. = 0.01896) (weighting: None)	%RSE=7.7
PFPeS	(349.0 / 80.0)	13C3_PFHxS_EIS	1.0000	0.9384	y = 0.78804 x (std. dev. = 0.06145) (weighting: None)	%RSE=7.8
PFHxS	(399.0 / 80.0)	13C3_PFHxS_EIS	1.0000	0.9110	y = 0.70012 x (std. dev. = 0.04475) (weighting: None)	%RSE=6.4
PFHpS	(449.0 / 80.0)	13C8_PFOS_EIS	1.0000	0.9514	y = 0.45254 x (std. dev. = 0.03021) (weighting: None)	%RSE=6.7
PFOS	(499.0 / 80.0)	13C8_PFOS_EIS	1.0000	0.9275	y = 0.53808 x (std. dev. = 0.03923) (weighting: None)	%RSE=7.3
PFNS	(549.0 / 80.0)	13C8_PFOS_EIS	1.0000	0.9599	y = 0.55489 x (std. dev. = 0.06523) (weighting: None)	%RSE=11.8
PFDS	(599.0 / 80.0)	13C8_PFOS_EIS	1.0000	0.9631	y = 0.68078 x (std. dev. = 0.08302) (weighting: None)	%RSE=12.2
PFDoS	(699.0 / 80.0)	13C8_PFOS_EIS	1.0000	0.9696	y = 0.27376 x (std. dev. = 0.01722) (weighting: None)	%RSE=6.3
4:2FTS	(327.0 / 307.0)	13C2_4:2FTS_EIS	4.0000	0.9345	y = 2.66614 x (std. dev. = 0.21073) (weighting: None)	%RSE=7.9
6:2FTS	(427.0 / 407.0)	13C2_6:2FTS_EIS	4.0000	0.9490	y = 1.29894 x (std. dev. = 0.12486) (weighting: None)	%RSE=9.6
8:2FTS	(527.0 / 507.0)	13C2_8:2FTS_EIS	4.0000	0.9583	y = 1.29107 x (std. dev. = 0.18142) (weighting: None)	%RSE=14.1
PFOSA	(498.0 / 78.0)	13C8_PFOSA_EIS	1.0000	1.0000	y = 0.47988 x (std. dev. = 0.04428) (weighting: None)	%RSE=9.2
NMeFOSA	(512.0 / 219.0)	D3_NMeFOSA_EIS	4.0000	1.0000	y = 1.73979 x (std. dev. = 0.23696) (weighting: None)	%RSE=13.6
NEiFOSA	(526.0 / 219.0)	D5_NEiFOSA_EIS	4.0000	1.0000	y = 1.83827 x (std. dev. = 0.15160) (weighting: None)	%RSE=8.2
NMeFOSAA	(570.0 / 419.0)	D3_MeFOSAA_EIS	1.0000	1.0000	y = 0.20760 x (std. dev. = 0.02006) (weighting: None)	%RSE=9.7
NEiFOSAA	(584.0 / 419.0)	D5_EiFOSAA_EIS	1.0000	1.0000	y = 0.21680 x (std. dev. = 0.02253) (weighting: None)	%RSE=10.4
NMeFOSE	(616.0 / 59.0)	D7_NMeFOSE_EIS	4.0000	1.0000	y = 0.22581 x (std. dev. = 0.01671) (weighting: None)	%RSE=7.4
NEiFOSE	(630.0 / 59.0)	D9_NEiFOSE_EIS	4.0000	1.0000	y = 0.07584 x (std. dev. = 0.00744) (weighting: None)	%RSE=9.8
HFPO-DA	(285.0 / 169.0)	13C3_HFPODA_EIS	2.0000	1.0000	y = 0.15345 x (std. dev. = 0.00632) (weighting: None)	%RSE=4.1
ADONA	(377.0 / 85.0)	13C3_HFPODA_EIS	2.0000	0.9427	y = 0.61946 x (std. dev. = 0.04933) (weighting: None)	%RSE=8.0
9Cl-Pf3ONS	(531.0 / 351.0)	13C3_HFPODA_EIS	2.0000	0.9333	y = 1.60954 x (std. dev. = 0.15254) (weighting: None)	%RSE=9.5
11Cl-Pf3OUDS	(631.0 / 451.0)	13C3_HFPODA_EIS	2.0000	0.9432	y = 0.85035 x (std. dev. = 0.09071) (weighting: None)	%RSE=10.7
3:3FTCA	(241.0 / 177.0)	13C5_PFPeA_EIS	4.0000	1.0000	y = 0.02990 x (std. dev. = 0.00358) (weighting: None)	%RSE=12.0
5:3FTCA	(341.0 / 236.7)	13C5_PFHxA_EIS	4.0000	1.0000	y = 0.27947 x (std. dev. = 0.02031) (weighting: None)	%RSE=7.3
7:3FTCA	(441.0 / 317.0)	13C5_PFHxA_EIS	4.0000	1.0000	y = 0.34429 x (std. dev. = 0.03222) (weighting: None)	%RSE=9.4
PFEESA	(315.0 / 135.0)	13C5_PFHxA_EIS	2.0000	0.8925	y = 0.80979 x (std. dev. = 0.04055) (weighting: None)	%RSE=5.0
PFMPA	(229.0 / 85.0)	13C5_PFPeA_EIS	2.0000	1.0000	y = 0.12964 x (std. dev. = 0.00775) (weighting: None)	%RSE=6.0
PFMBA	(279.0 / 85.0)	13C5_PFPeA_EIS	2.0000	1.0000	y = 0.33939 x (std. dev. = 0.01964) (weighting: None)	%RSE=5.8
NFDHA	(295.0 / 201.0)	13C5_PFHxA_EIS	2.0000	1.0000	y = 0.43560 x (std. dev. = 0.01759) (weighting: None)	%RSE=4.0
13C3_PFBA_IIS	(216.0 / 172.0)	13C3_PFBA_IIS	1.0000	1.0000	y = 270317.4835 x	%RSD=9.5
13C2_PFHxA_IIS	(315.0 / 270.0)	13C2_PFHxA_IIS	1.0000	1.0000	y = 397129.3476 x	%RSD=7.0
13C4_PFOA_IIS	(417.0 / 372.0)	13C4_PFOA_IIS	1.0000	1.0000	y = 399486.5252 x	%RSD=4.8
13C5_PFNA_IIS	(468.0 / 423.0)	13C5_PFNA_IIS	1.0000	1.0000	y = 330557.8979 x	%RSD=8.7
13C2_PFDA_IIS	(515.0 / 470.1)	13C2_PFDA_IIS	1.0000	1.0000	y = 357076.3967 x	%RSD=9.2
18O2_PFHxS_IIS	(403.0 / 83.9)	18O2_PFHxS_IIS	1.0000	1.0000	y = 697456.7746 x	%RSD=5.3
13C4_PFOS_IIS	(503.0 / 79.9)	13C4_PFOS_IIS	1.0000	1.0000	y = 689562.2282 x	%RSD=9.5

Analyte	(Q1 / Q3)	Internal Standard	Multiplier	AcidFactor	Function	Qualifier
13C4_PFBA_EIS	(217.0 / 172.0)	13C3_PFBA_IIS	8.0000	1.0000	y = 8.5969 x	%RSD=3.8
13C5_PFPaA_EIS	(268.0 / 223.0)	13C2_PFHxA_IIS	4.0000	1.0000	y = 3.6555 x	%RSD=9.1
13C5_PFHxA_EIS	(318.0 / 273.0)	13C2_PFHxA_IIS	2.0000	1.0000	y = 2.2245 x	%RSD=9.4
13C4_PFHxA_EIS	(367.0 / 322.0)	13C2_PFHxA_IIS	2.0000	1.0000	y = 1.9876 x	%RSD=7.8
13C8_PFOA_EIS	(421.0 / 376.0)	13C4_PFOA_IIS	2.0000	1.0000	y = 2.1916 x	%RSD=6.2
13C9_PFNA_EIS	(472.0 / 427.0)	13C5_PFNA_IIS	1.0000	1.0000	y = 1.1008 x	%RSD=4.2
13C6_PFDA_EIS	(519.0 / 474.0)	13C2_PFDA_IIS	1.0000	1.0000	y = 1.3082 x	%RSD=9.6
13C7_PFuNA_EIS	(570.0 / 525.0)	13C2_PFDA_IIS	1.0000	1.0000	y = 1.5853 x	%RSD=11.6
13C2_PFDaA_EIS	(615.0 / 570.0)	13C2_PFDA_IIS	1.0000	1.0000	y = 1.7449 x	%RSD=15.1
13C2_PFTeDA_EIS	(715.0 / 670.0)	13C2_PFDA_IIS	1.0000	1.0000	y = 1.1517 x	%RSD=20.6
13C3_PFBS_EIS	(302.0 / 80.0)	18O2_PFHxS_IIS	2.0000	1.0000	y = 3.3678 x	%RSD=7.4
13C3_PFHxS_EIS	(402.0 / 80.0)	18O2_PFHxS_IIS	2.0000	1.0000	y = 1.7877 x	%RSD=6.8
13C8_PFOS_EIS	(507.0 / 80.0)	13C4_PFOS_IIS	2.0000	1.0000	y = 2.5902 x	%RSD=8.8
13C2_4:2FTS_EIS	(329.0 / 81.0)	18O2_PFHxS_IIS	4.0000	1.0000	y = 0.7932 x	%RSD=12.7
13C2_6:2FTS_EIS	(429.0 / 81.0)	18O2_PFHxS_IIS	4.0000	1.0000	y = 0.9858 x	%RSD=13.3
13C2_8:2FTS_EIS	(529.0 / 81.0)	18O2_PFHxS_IIS	4.0000	1.0000	y = 0.9718 x	%RSD=8.0
13C8_PFOSA_EIS	(506.0 / 78.0)	13C4_PFOS_IIS	2.0000	1.0000	y = 3.4438 x	%RSD=13.0
D3_NMeFOSA_EIS	(515.0 / 169.0)	13C4_PFOS_IIS	2.0000	1.0000	y = 0.6679 x	%RSD=10.7
D5_NEtFOSA_EIS	(531.0 / 169.0)	13C4_PFOS_IIS	2.0000	1.0000	y = 0.5951 x	%RSD=8.0
D3_MeFOSAA_EIS	(573.0 / 419.0)	13C4_PFOS_IIS	4.0000	1.0000	y = 1.4172 x	%RSD=10.5
D5_EtFOSAA_EIS	(589.0 / 419.0)	13C4_PFOS_IIS	4.0000	1.0000	y = 1.2138 x	%RSD=15.3
D7_NMeFOSE_EIS	(623.0 / 58.9)	13C4_PFOS_IIS	20.0000	1.0000	y = 1.0700 x	%RSD=7.0
D9_NEtFOSE_EIS	(639.0 / 58.9)	13C4_PFOS_IIS	20.0000	1.0000	y = 0.4327 x	%RSD=11.3
13C3_HFPODA_EIS	(287.0 / 169.0)	13C2_PFHxA_IIS	8.0000	1.0000	y = 4.9413 x	%RSD=8.5

x=Concentration Analyte

$$y = \text{Area Ratio} = \frac{\text{Area Analyte}}{\text{Area Internal Standard}}$$

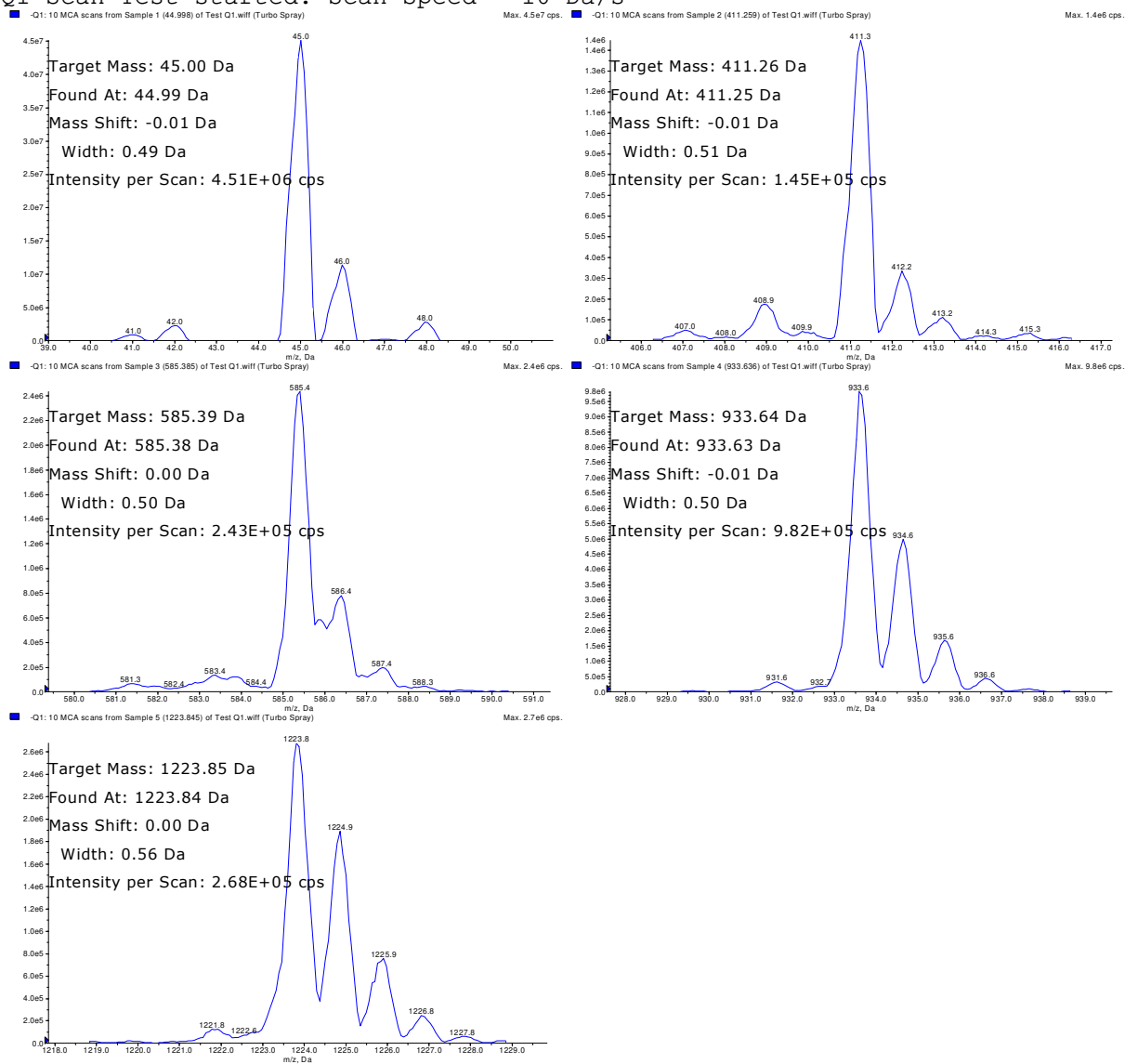
$$\text{Acid Factor} = \frac{\text{Molecular weight Acid}}{\text{Molecular weight Salt}}$$

$$\text{Multiplier} = \frac{\text{Concentration of Analyte}}{\text{Concentration of PFOA}} \text{ in curve standard mix}$$

$$\text{Result} \left(\frac{\text{ng}}{\text{mL}} \right) = x * \text{Multiplier} * \text{Acid Factor}$$

Tune 2021-11-23 Q1 NEG @ 10Da/s

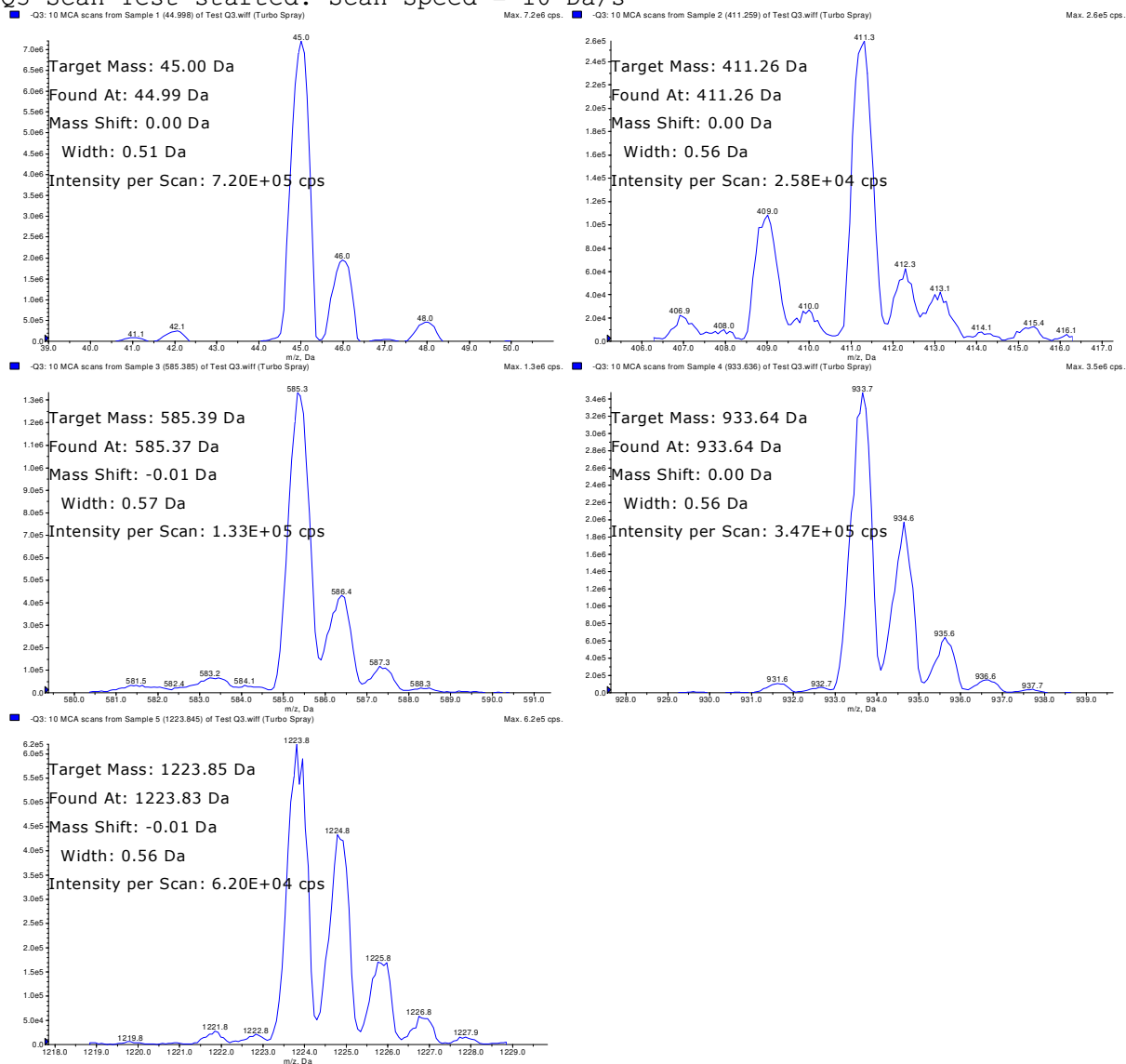
Q1 Scan Test started. Scan Speed = 10 Da/s



Target Mass	Found At	Delta	Width	Intensity	0.4<Width<0.6
45.00	44.99	-0.01	0.49	4.51E+06	PASS
411.26	411.25	-0.01	0.51	1.45E+05	PASS
585.39	585.38	0.00	0.50	2.43E+05	PASS
933.64	933.63	-0.01	0.50	9.82E+05	PASS
1223.85	1223.84	0.00	0.56	2.68E+05	PASS

Tune 2021-11-23 Q3 NEG @ 10Da/s

Q3 Scan Test started. Scan Speed = 10 Da/s



Target Mass	Found At	Delta	Width	Intensity	0.4<Width<0.6
45.00	44.99	0.00	0.51	7.20E+05	PASS
411.26	411.26	0.00	0.56	2.58E+04	PASS
585.39	585.37	-0.01	0.57	1.33E+05	PASS
933.64	933.64	0.00	0.56	3.47E+05	PASS
1223.85	1223.83	-0.01	0.56	6.20E+04	PASS

Analyte	(Q1 / Q3)	Internal Standard	Multiplier	AcidFactor	Function	Qualifier
PFBA	(213.0 / 169.0)	13C4_PFBA_EIS	4.0000	1.0000	y = 0.46716 x (std. dev. = 0.03134) (weighting: None)	%RSE=6.7
PFPeA	(263.0 / 219.0)	13C5_PFPeA_EIS	2.0000	1.0000	y = 0.47477 x (std. dev. = 0.02347) (weighting: None)	%RSE=4.9
PFHxA	(313.0 / 269.0)	13C5_PFHxA_EIS	1.0000	1.0000	y = 0.49617 x (std. dev. = 0.01601) (weighting: None)	%RSE=3.2
PFHpA	(363.0 / 319.0)	13C4_PFHpA_EIS	1.0000	1.0000	y = 0.52394 x (std. dev. = 0.02747) (weighting: None)	%RSE=5.2
PFOA	(413.0 / 369.0)	13C8_PFOA_EIS	1.0000	1.0000	y = 0.53264 x (std. dev. = 0.03029) (weighting: None)	%RSE=5.7
PFNA	(463.0 / 419.0)	13C9_PFNA_EIS	1.0000	1.0000	y = 0.96515 x (std. dev. = 0.11510) (weighting: None)	%RSE=11.9
PFDA	(513.0 / 469.0)	13C6_PFDA_EIS	1.0000	1.0000	y = 0.99166 x (std. dev. = 0.06898) (weighting: None)	%RSE=7.0
PFUnA	(563.0 / 519.0)	13C7_PFUnA_EIS	1.0000	1.0000	y = 0.91260 x (std. dev. = 0.06087) (weighting: None)	%RSE=6.7
PFDaA	(613.0 / 569.0)	13C2_PFDaA_EIS	1.0000	1.0000	y = 0.95836 x (std. dev. = 0.14827) (weighting: None)	%RSE=15.5
PFTTrDA	(663.0 / 619.0)	13C2_PFDaA_EIS	1.0000	1.0000	y = 0.83621 x (std. dev. = 0.14762) (weighting: None)	%RSE=17.7
PFTeDA	(713.0 / 669.0)	13C2_PFTeDA_EIS	1.0000	1.0000	y = 1.01157 x (std. dev. = 0.10486) (weighting: None)	%RSE=10.4
PFBS	(299.0 / 80.0)	13C3_PFBs_EIS	1.0000	0.8847	y = 0.28221 x (std. dev. = 0.01814) (weighting: None)	%RSE=6.4
PFPeS	(349.0 / 80.0)	13C3_PFHxS_EIS	1.0000	0.9384	y = 0.92269 x (std. dev. = 0.08680) (weighting: None)	%RSE=9.4
PFHxS	(399.0 / 80.0)	13C3_PFHxS_EIS	1.0000	0.9110	y = 0.78894 x (std. dev. = 0.05344) (weighting: None)	%RSE=6.8
PFHpS	(449.0 / 80.0)	13C8_PFOS_EIS	1.0000	0.9514	y = 0.48130 x (std. dev. = 0.03657) (weighting: None)	%RSE=7.6
PFOS	(499.0 / 80.0)	13C8_PFOS_EIS	1.0000	0.9275	y = 0.54001 x (std. dev. = 0.03944) (weighting: None)	%RSE=7.3
PFNS	(549.0 / 80.0)	13C8_PFOS_EIS	1.0000	0.9599	y = 0.63351 x (std. dev. = 0.04916) (weighting: None)	%RSE=7.8
PFDS	(599.0 / 80.0)	13C8_PFOS_EIS	1.0000	0.9631	y = 0.76856 x (std. dev. = 0.06549) (weighting: None)	%RSE=8.5
PFDoS	(699.0 / 80.0)	13C8_PFOS_EIS	1.0000	0.9696	y = 0.36436 x (std. dev. = 0.02693) (weighting: None)	%RSE=7.4
4:2FTS	(327.0 / 307.0)	13C2_4:2FTS_EIS	4.0000	0.9345	y = 3.17780 x (std. dev. = 0.28502) (weighting: None)	%RSE=9.0
6:2FTS	(427.0 / 407.0)	13C2_6:2FTS_EIS	4.0000	0.9490	y = 1.52371 x (std. dev. = 0.17052) (weighting: None)	%RSE=11.2
8:2FTS	(527.0 / 507.0)	13C2_8:2FTS_EIS	4.0000	0.9583	y = 1.49481 x (std. dev. = 0.24064) (weighting: None)	%RSE=16.1
PFOSA	(498.0 / 78.0)	13C8_PFOSA_EIS	1.0000	1.0000	y = 0.57985 x (std. dev. = 0.05759) (weighting: None)	%RSE=9.9
NMeFOSA	(512.0 / 219.0)	D3_NMeFOSA_EIS	4.0000	1.0000	y = 1.94281 x (std. dev. = 0.24042) (weighting: None)	%RSE=12.4
NEiFOSA	(526.0 / 219.0)	D5_NEiFOSA_EIS	4.0000	1.0000	y = 1.98380 x (std. dev. = 0.16643) (weighting: None)	%RSE=8.4
NMeFOSAA	(570.0 / 419.0)	D3_MeFOSAA_EIS	1.0000	1.0000	y = 0.22686 x (std. dev. = 0.02481) (weighting: None)	%RSE=10.9
NEiFOSAA	(584.0 / 419.0)	D5_EiFOSAA_EIS	1.0000	1.0000	y = 0.24645 x (std. dev. = 0.03357) (weighting: None)	%RSE=13.6
NMeFOSE	(616.0 / 59.0)	D7_NMeFOSE_EIS	4.0000	1.0000	y = 0.24418 x (std. dev. = 0.01638) (weighting: None)	%RSE=6.7
NEiFOSE	(630.0 / 59.0)	D9_NEiFOSE_EIS	4.0000	1.0000	y = 1.15135e-4 x^2 + 0.10842 x + -0.00219 (r = 0.99964) (weighting: 1 / x)	%RSE=5.7
HFPO-DA	(285.0 / 169.0)	13C3_HFPODA_EIS	2.0000	1.0000	y = 0.17354 x (std. dev. = 0.01053) (weighting: None)	%RSE=6.1
ADONA	(377.0 / 85.0)	13C3_HFPODA_EIS	2.0000	0.9427	y = 0.65193 x (std. dev. = 0.06261) (weighting: None)	%RSE=9.6
9Cl-Pf3ONS	(531.0 / 351.0)	13C3_HFPODA_EIS	2.0000	0.9333	y = 1.76270 x (std. dev. = 0.18956) (weighting: None)	%RSE=10.8
11Cl-Pf3OUDS	(631.0 / 451.0)	13C3_HFPODA_EIS	2.0000	0.9432	y = 1.00828 x (std. dev. = 0.10858) (weighting: None)	%RSE=10.8
3:3FTCA	(241.0 / 177.0)	13C5_PFPeA_EIS	4.0000	1.0000	y = 0.03264 x (std. dev. = 0.00312) (weighting: None)	%RSE=9.5
5:3FTCA	(341.0 / 236.7)	13C5_PFHxA_EIS	4.0000	1.0000	y = 0.30377 x (std. dev. = 0.01914) (weighting: None)	%RSE=6.3
7:3FTCA	(441.0 / 317.0)	13C5_PFHxA_EIS	4.0000	1.0000	y = 0.39571 x (std. dev. = 0.02270) (weighting: None)	%RSE=5.7
PFEESA	(315.0 / 135.0)	13C5_PFHxA_EIS	2.0000	0.8925	y = 0.81312 x (std. dev. = 0.07653) (weighting: None)	%RSE=9.4
PFMPA	(229.0 / 85.0)	13C5_PFPeA_EIS	2.0000	1.0000	y = 0.13866 x (std. dev. = 0.01119) (weighting: None)	%RSE=8.1
PFMBA	(279.0 / 85.0)	13C5_PFPeA_EIS	2.0000	1.0000	y = 0.39540 x (std. dev. = 0.02942) (weighting: None)	%RSE=7.4
NFDHA	(295.0 / 201.0)	13C5_PFHxA_EIS	2.0000	1.0000	y = 0.48708 x (std. dev. = 0.02917) (weighting: None)	%RSE=6.0
13C3_PFBA_IIS	(216.0 / 172.0)	13C3_PFBA_IIS	1.0000	1.0000	y = 215351.7500 x	%RSD=7.9
13C2_PFHxA_IIS	(315.0 / 270.0)	13C2_PFHxA_IIS	1.0000	1.0000	y = 379614.2469 x	%RSD=4.2
13C4_PFOA_IIS	(417.0 / 372.0)	13C4_PFOA_IIS	1.0000	1.0000	y = 360969.3315 x	%RSD=5.9
13C5_PFNA_IIS	(468.0 / 423.0)	13C5_PFNA_IIS	1.0000	1.0000	y = 294062.4054 x	%RSD=6.3
13C2_PFDA_IIS	(515.0 / 470.1)	13C2_PFDA_IIS	1.0000	1.0000	y = 340648.6865 x	%RSD=6.9
18O2_PFHxS_IIS	(403.0 / 83.9)	18O2_PFHxS_IIS	1.0000	1.0000	y = 605087.5488 x	%RSD=4.0
13C4_PFOS_IIS	(503.0 / 79.9)	13C4_PFOS_IIS	1.0000	1.0000	y = 644809.1635 x	%RSD=8.9

Analyte	(Q1 / Q3)	Internal Standard	Multiplier	AcidFactor	Function	Qualifier
13C4_PFBA_EIS	(217.0 / 172.0)	13C3_PFBA_IIS	8.0000	1.0000	y = 8.0318 x	%RSD=1.9
13C5_PFPaA_EIS	(268.0 / 223.0)	13C2_PFHxA_IIS	4.0000	1.0000	y = 3.0178 x	%RSD=6.7
13C5_PFHxA_EIS	(318.0 / 273.0)	13C2_PFHxA_IIS	2.0000	1.0000	y = 2.0466 x	%RSD=5.2
13C4_PFHpA_EIS	(367.0 / 322.0)	13C2_PFHxA_IIS	2.0000	1.0000	y = 1.7779 x	%RSD=6.1
13C8_PFOA_EIS	(421.0 / 376.0)	13C4_PFOA_IIS	2.0000	1.0000	y = 2.0463 x	%RSD=5.4
13C9_PFNA_EIS	(472.0 / 427.0)	13C5_PFNA_IIS	1.0000	1.0000	y = 1.0390 x	%RSD=8.7
13C6_PFDA_EIS	(519.0 / 474.0)	13C2_PFDA_IIS	1.0000	1.0000	y = 1.2079 x	%RSD=6.6
13C7_PFUnA_EIS	(570.0 / 525.0)	13C2_PFDA_IIS	1.0000	1.0000	y = 1.4855 x	%RSD=13.8
13C2_PFDoA_EIS	(615.0 / 570.0)	13C2_PFDA_IIS	1.0000	1.0000	y = 1.4824 x	%RSD=7.1
13C2_PFTeDA_EIS	(715.0 / 670.0)	13C2_PFDA_IIS	1.0000	1.0000	y = 0.9393 x	%RSD=11.6
13C3_PFBS_EIS	(302.0 / 80.0)	18O2_PFHxS_IIS	2.0000	1.0000	y = 3.0269 x	%RSD=7.8
13C3_PFHxS_EIS	(402.0 / 80.0)	18O2_PFHxS_IIS	2.0000	1.0000	y = 1.6390 x	%RSD=6.8
13C8_PFOS_EIS	(507.0 / 80.0)	13C4_PFOS_IIS	2.0000	1.0000	y = 2.4102 x	%RSD=9.3
13C2_4:2FTS_EIS	(329.0 / 81.0)	18O2_PFHxS_IIS	4.0000	1.0000	y = 0.6840 x	%RSD=9.9
13C2_6:2FTS_EIS	(429.0 / 81.0)	18O2_PFHxS_IIS	4.0000	1.0000	y = 0.9050 x	%RSD=10.4
13C2_8:2FTS_EIS	(529.0 / 81.0)	18O2_PFHxS_IIS	4.0000	1.0000	y = 1.1407 x	%RSD=12.2
13C8_PFOA_EIS	(506.0 / 78.0)	13C4_PFOS_IIS	2.0000	1.0000	y = 2.8131 x	%RSD=12.5
D3_NMeFOSA_EIS	(515.0 / 169.0)	13C4_PFOS_IIS	2.0000	1.0000	y = 0.5320 x	%RSD=15.4
D5_NeIFOSA_EIS	(531.0 / 169.0)	13C4_PFOS_IIS	2.0000	1.0000	y = 0.4872 x	%RSD=10.3
D3_MeFOSAA_EIS	(573.0 / 419.0)	13C4_PFOS_IIS	4.0000	1.0000	y = 1.5167 x	%RSD=8.6
D5_EiFOSAA_EIS	(589.0 / 419.0)	13C4_PFOS_IIS	4.0000	1.0000	y = 1.1761 x	%RSD=14.8
D7_NMeFOSE_EIS	(623.0 / 58.9)	13C4_PFOS_IIS	20.0000	1.0000	y = 1.1622 x	%RSD=11.8
D9_NeIFOSE_EIS	(639.0 / 58.9)	13C4_PFOS_IIS	20.0000	1.0000	y = 0.5359 x	%RSD=12.4
13C3_HFPODA_EIS	(287.0 / 169.0)	13C2_PFHxA_IIS	8.0000	1.0000	y = 4.5797 x	%RSD=6.0

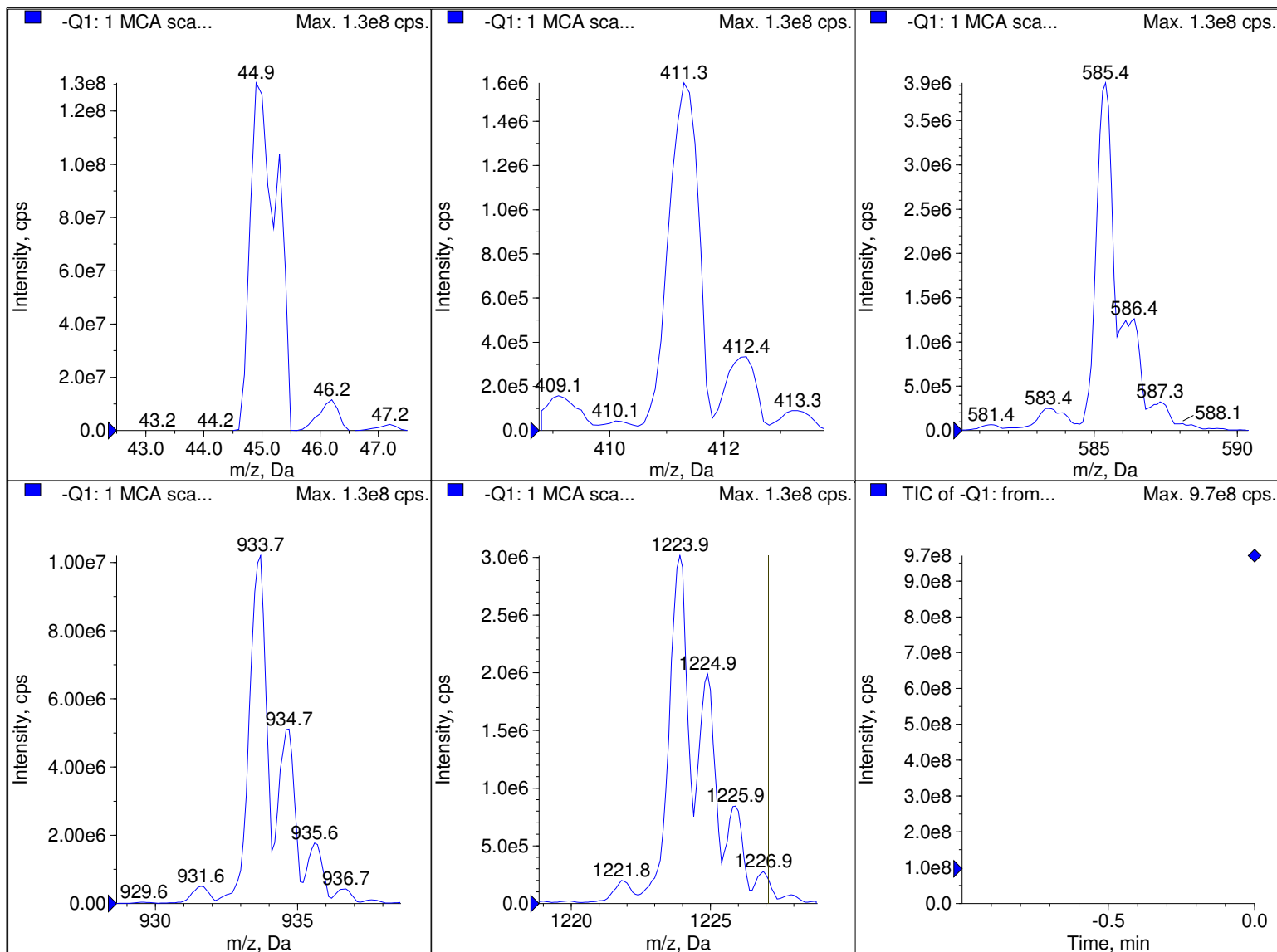
x= Concentration Analyte

$$y = \text{Area Ratio} = \frac{\text{Area Analyte}}{\text{Area Internal Standard}}$$

$$\text{Acid Factor} = \frac{\text{Molecular weight Acid}}{\text{Molecular weight Salt}}$$

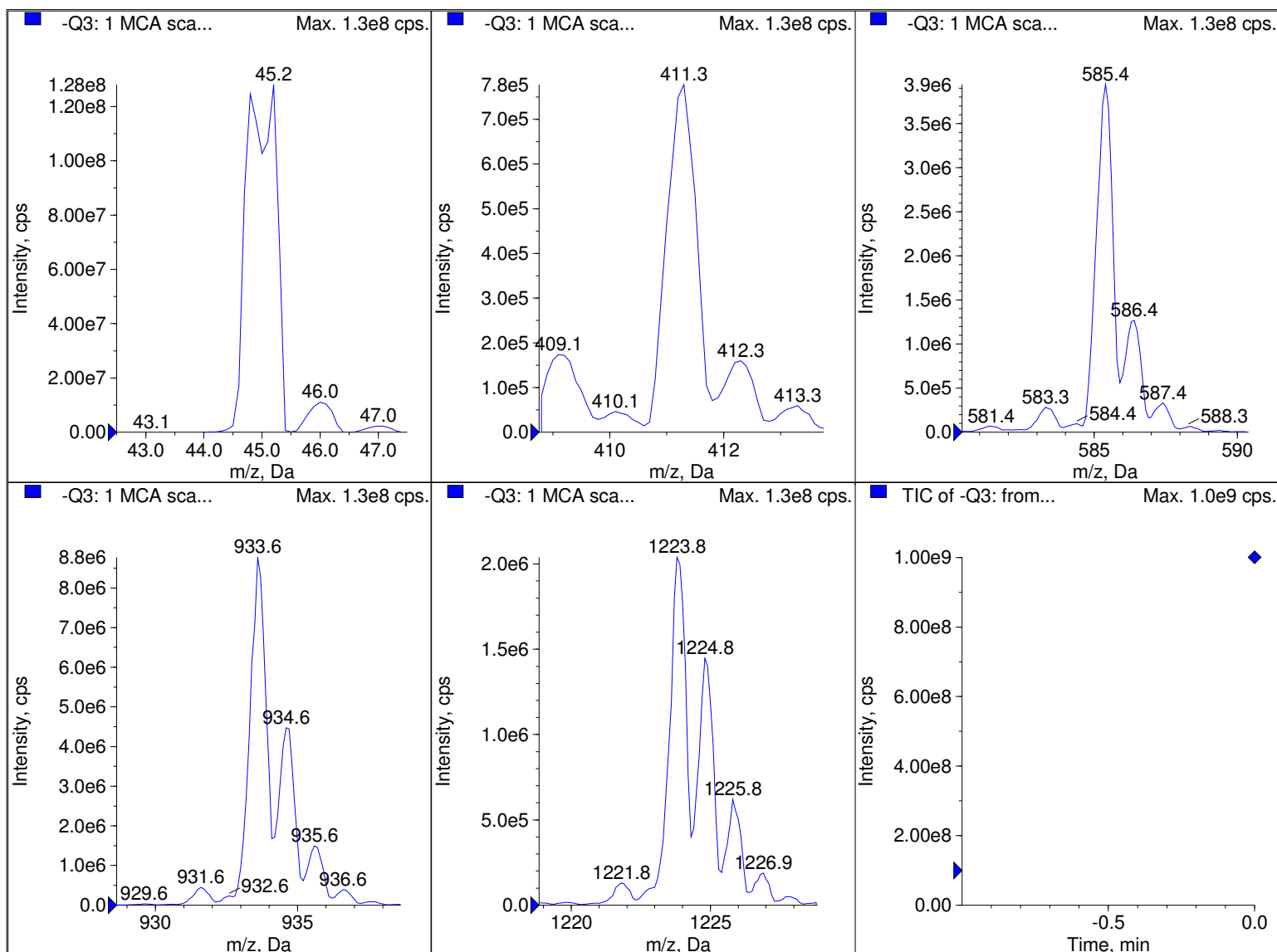
$$\text{Multiplier} = \frac{\text{Concentration of Analyte}}{\text{Concentration of PFOA}} \text{ in curve standard mix}$$

$$\text{Result} \left(\frac{\text{ng}}{\text{ml}} \right) = x * \text{Multiplier} * \text{Acid Factor}$$



Peak List for "-Q1: 1 MCA scans from Sample 1 (TuneSampleID) of MT20221111142838.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	45.0305	1.3061e8	0.6158	-0.0325
2	411.2590	411.3148	1.5745e6	0.6085	-0.0558
3	585.3850	585.3651	3.9270e6	0.6307	0.0199
4	933.6360	933.6197	1.0205e7	0.6552	0.0163
5	1223.8450	1223.8627	3.0170e6	0.6967	-0.0177
6	1572.0970	n/a	n/a	n/a	n/a
7	1863.3060	n/a	n/a	n/a	n/a
8	1979.3890	n/a	n/a	n/a	n/a

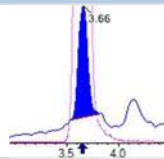
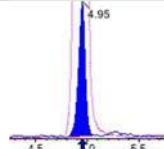
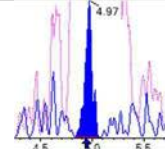
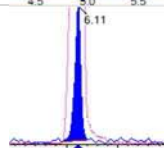
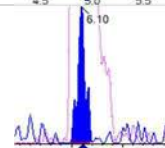
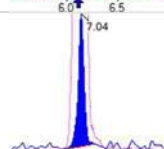
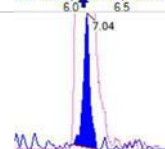
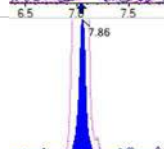
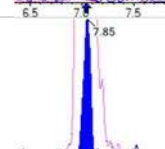
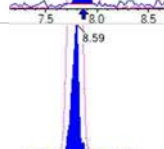
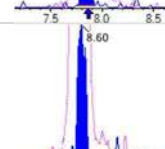
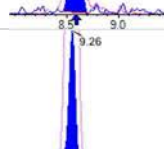
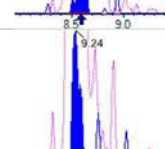
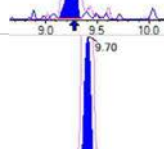
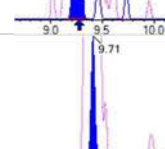
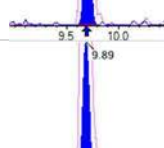
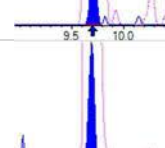
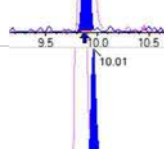
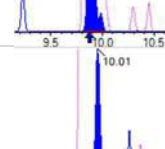
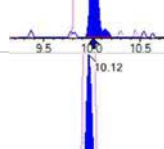
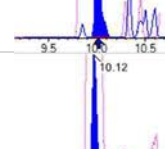


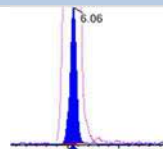
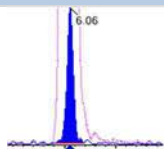
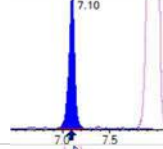
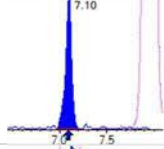
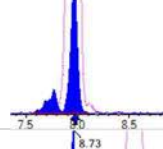
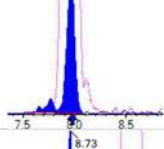
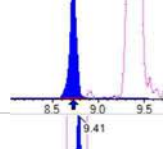
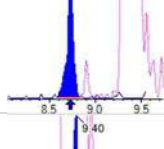
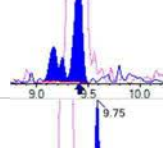
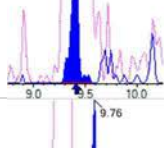
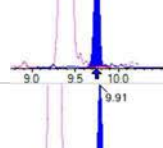
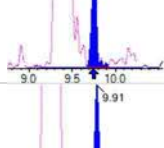
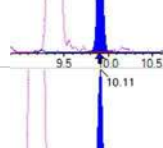
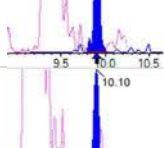
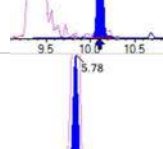
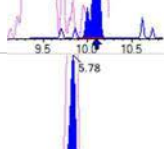
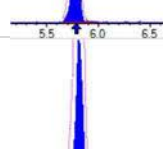
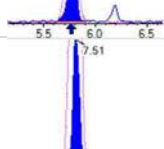
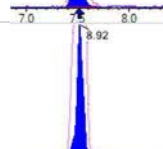
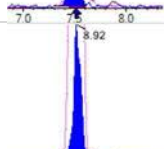
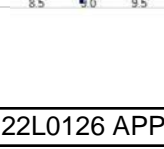
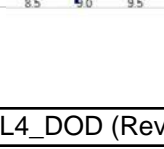
Peak List for "-Q3: 1 MCA scans from Sample 1 (TuneSampleID) of MT20221111142403.wiff (Turbo Spray)"

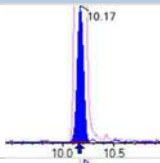
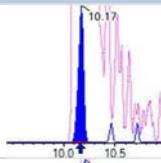
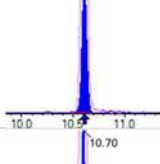
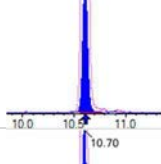
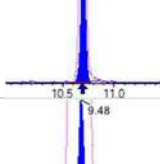
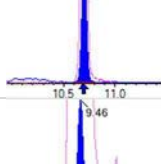
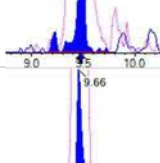
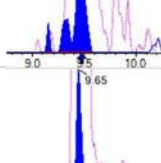
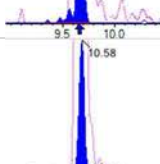
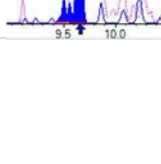
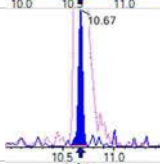
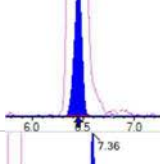
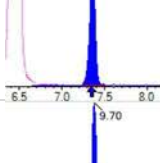
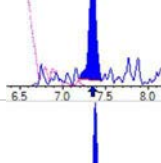
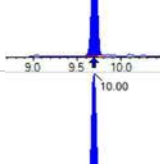
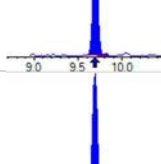
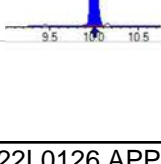
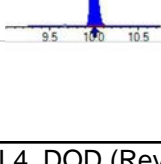


	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	44.9799	1.2814e8	0.6414	0.0181
2	411.2590	411.2677	7.7810e5	0.6076	-8.6898e-3
3	585.3850	585.3784	3.9438e6	0.6511	6.5868e-3
4	933.6360	933.6279	8.7759e6	0.6302	8.0526e-3
5	1223.8450	1223.8609	2.0397e6	0.6225	-0.0159
6	1572.0970	n/a	n/a	n/a	n/a
7	1863.3060	n/a	n/a	n/a	n/a
8	1979.3890	n/a	n/a	n/a	n/a

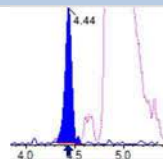
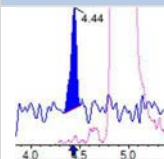
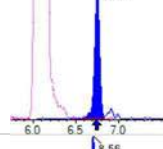
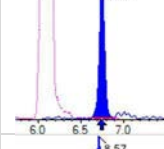
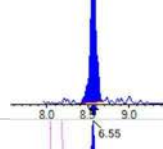
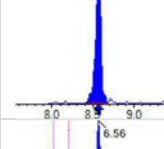
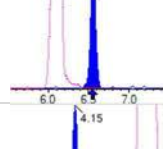
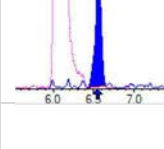
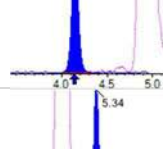
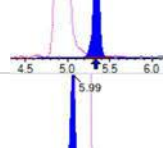
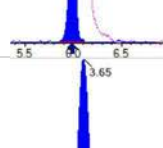
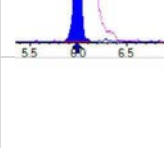
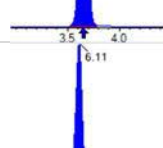
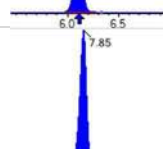
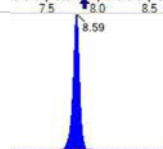
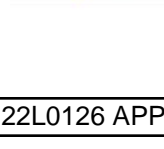
EPA 1633

Initial Calibration: SB04012

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 78678	(3.66, 1.00) (0.00, N/A, 0.0)	87.2	N/A 0.0 0.0	0.3435 [0.4000]	85.9%			
PFPeA	(263.0 / 219.0) 55747 (263.0 / 69.0) 829	(4.95, 1.00) (0.00, N/A, -1.1)	193.0 18.2	0.0149 143.9 143.9	0.1855 [0.2000]	92.7%			
PFHxA	(313.0 / 269.0) 41780 (313.0 / 119.0) 4555	(6.11, 1.00) (0.00, N/A, 1.0)	118.0 22.9	0.1090 112.0 112.0	0.1050 [0.1000]	105.0%			
PFHpA	(363.0 / 319.0) 37894 (363.0 / 169.0) 10745	(7.04, 1.00) (0.00, N/A, -0.3)	74.5 45.3	0.2836 99.1 99.1	0.1023 [0.1000]	102.3%			
PFOA	(413.0 / 369.0) 40033 (413.0 / 169.0) 10104	(7.86, 1.00) (0.00, N/A, 0.1)	93.5 114.4	0.2524 83.1 83.1	0.0949 [0.1000]	94.9%			
PFNA	(463.0 / 419.0) 24824 (463.0 / 169.0) 7820	(8.59, 1.00) (0.00, N/A, -0.5)	69.1 88.9	0.3150 148.8 148.8	0.0783 [0.1000]	78.3%			
PFDA	(513.0 / 469.0) 38349 (513.0 / 169.0) 4875	(9.26, 1.00) (0.00, N/A, 1.0)	73.8 135.9	0.1271 137.9 137.9	0.0935 [0.1000]	93.5%			
PFUnA	(563.0 / 519.0) 54407 (563.0 / 169.0) 5897	(9.70, 1.00) (0.00, N/A, -0.2)	111.5 248.2	0.1084 140.9 140.9	0.0986 [0.1000]	98.6%			
PFDaA	(613.0 / 569.0) 38168 (613.0 / 169.0) 8437	(9.89, 1.00) (0.00, N/A, -0.4)	86.1 297.5	0.2211 164.1 164.1	0.0763 [0.1000]	76.3%			IR2,
PFTTrDA	(663.0 / 619.0) 34370 (663.0 / 169.0) 4676	(10.01, 1.01) (N/A, 0.01, 0.4)	95.2 24.9	0.1361 62.5 62.5	0.0788 [0.1000]	78.8%			
PFTeDA	(713.0 / 669.0) 35843 (713.0 / 169.0) 6576	(10.12, 1.00) (0.00, N/A, -0.2)	80.4 35.7	0.1835 93.0 93.0	0.1157 [0.1000]	115.7%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 54392 (299.0 / 99.0) 31728	(6.06, 1.00) (0.00, N/A, 0.2)	247.0 144.2	0.5833 88.8 88.8	0.0823 [0.0885]	93.0%			
PFPeS	(349.0 / 80.0) 90656 (349.0 / 99.0) 31611	(7.10, 0.89) (N/A, 0.01, 0.1)	290.4 164.5	0.3487 94.1 94.1	0.0830 [0.0938]	88.5%			
PFHxS	(399.0 / 80.0) 83267 (399.0 / 99.0) 26841	(7.96, 1.00) (0.00, N/A, 0.1)	297.3 217.3	0.3224 98.9 98.9	0.0866 [0.0911]	95.0%			
PFHpS	(449.0 / 80.0) 79620 (449.0 / 99.0) 18396	(8.73, 0.93) (N/A, 0.00, -0.1)	359.6 123.8	0.2310 88.7 88.7	0.0994 [0.0951]	104.5%			
PFOS	(499.0 / 80.0) 73948 (499.0 / 99.0) 10661	(9.41, 1.00) (0.00, N/A, 0.2)	84.9 53.8	0.1442 69.3 69.3	0.0802 [0.0927]	86.5%			
PFNS	(549.0 / 80.0) 96357 (549.0 / 99.0) 24678	(9.75, 1.04) (N/A, 0.01, -0.2)	155.5 180.1	0.2561 107.6 107.6	0.0922 [0.0960]	96.1%			
PFDS	(599.0 / 80.0) 118918 (599.0 / 99.0) 25791	(9.91, 1.05) (N/A, 0.01, 0.1)	300.7 79.7	0.2169 82.4 82.4	0.0941 [0.0963]	97.7%			
PFDoS	(699.0 / 80.0) 50763 (699.0 / 99.0) 9356	(10.11, 1.08) (N/A, 0.01, 0.7)	232.2 53.4	0.1843 94.0 94.0	0.0853 [0.0970]	88.0%			
4:2FTS	(327.0 / 307.0) 143146 (327.0 / 81.0) 80261	(5.78, 1.00) (0.00, N/A, -0.2)	519.5 135.0	0.5607 78.3 78.3	0.4064 [0.3738]	108.7%			
6:2FTS	(427.0 / 407.0) 96665 (427.0 / 81.0) 61010	(7.51, 1.00) (0.00, N/A, 0.1)	328.7 162.6	0.6312 85.4 85.4	0.4223 [0.3796]	111.3%			
8:2FTS	(527.0 / 507.0) 103521 (527.0 / 81.0) 71170	(8.92, 1.00) (0.00, N/A, -0.2)	327.5 166.8	0.6875 112.4 112.4	0.3527 [0.3833]	92.0%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 104347 (498.0 / 478.0) 2736	(10.17, 1.00) (0.00, N/A, 0.1)	272.0 325.9	0.0262 125.6 125.6	0.0874 [0.1000]	87.4%			
NMeFOSA	(512.0 / 219.0) 63076 (512.0 / 169.0) 42368	(10.61, 1.00) (0.00, N/A, 0.1)	400.2 383.7	0.6717 97.1 97.1	0.4291 [0.4000]	107.3%			
NEIFOSA	(526.0 / 219.0) 51784 (526.0 / 169.0) 58007	(10.70, 1.00) (0.00, N/A, 0.0)	374.8 206.3	1.1202 112.9 112.9	0.3463 [0.4000]	86.6%			
NMeFOSAA	(570.0 / 419.0) 21505 (570.0 / 483.0) 16016	(9.48, 1.00) (0.01, N/A, 1.0)	409.9 3134.0	0.7448 133.8 133.8	0.0828 [0.1000]	82.8%			
NEIFOSAA	(584.0 / 419.0) 26122 (584.0 / 526.0) 14955	(9.66, 1.00) (0.00, N/A, 0.8)	6601.5 70.1	0.5725 96.5 96.5	0.1275 [0.1000]	127.5%			
NMeFOSE	(616.0 / 59.0) 15001	(10.58, 1.00) (0.01, N/A, 0.0)	122.4	N/A 0.0 0.0	0.3510 [0.4000]	87.8%			
NEtFOSE	(630.0 / 59.0) 2885	(10.67, 1.00) (0.00, N/A, 0.0)	56.6	N/A 0.0 0.0	0.4244 [0.4000]	106.1%			
HFPO-DA	(285.0 / 169.0) 35904 (285.0 / 185.0) 79192	(6.45, 1.00) (0.00, N/A, 0.1)	511.5 269.2	2.2057 86.0 86.0	0.2196 [0.2000]	109.8%			
ADONA	(377.0 / 85.0) 124087 (377.0 / 251.0) 12574	(7.36, 1.14) (N/A, 0.01, 0.4)	438.6 37.3	0.1013 82.4 82.4	0.1905 [0.1885]	101.0%			
9Cl-Pf3ONS	(531.0 / 351.0) 308060 (533.0 / 353.0) 99031	(9.70, 1.50) (N/A, 0.00, 0.0)	292.0 163.8	0.3215 101.7 101.7	0.1731 [0.1867]	92.8%			
11Cl-PF3OUDS	(631.0 / 451.0) 183503 (633.0 / 453.0) 53495	(10.00, 1.55) (N/A, 0.00, 0.0)	367.3 1607.0	0.2915 94.1 94.1	0.1822 [0.1886]	96.6%			

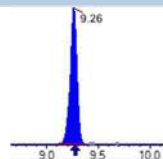
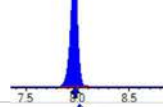
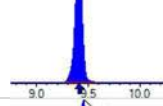
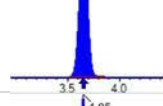
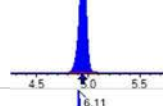
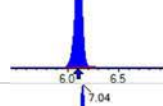
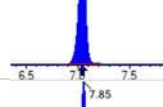
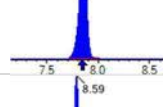
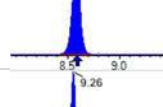
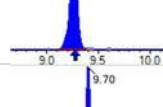
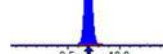
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 3846 (241.0 / 117.0) 4249	(4.44, 0.90) (N/A, 0.00, -0.3)	127.2 22.7	1.1048 84.0 84.0	0.3723 [0.4000]	93.1%			
5:3FTCA	(341.0 / 236.7) 23142 (341.0 / 217.0) 44473	(6.75, 1.11) (N/A, 0.01, 0.2)	175.4 121.1	1.9218 107.1 107.1	0.3801 [0.4000]	95.0%			
7:3FTCA	(441.0 / 317.0) 31285 (441.0 / 337.0) 26907	(8.56, 1.40) (N/A, 0.00, -0.4)	85.0 156.5	0.8600 104.3 104.3	0.3945 [0.4000]	98.6%			
PFEESA	(315.0 / 135.0) 70916 (315.0 / 83.0) 21798	(6.55, 1.07) (N/A, 0.01, -0.4)	352.6 86.3	0.3074 100.8 100.8	0.1942 [0.1785]	108.8%			
PFMPA	(229.0 / 85.0) 18925	(4.15, 0.84) (N/A, 0.01, 0.0)	395.0	N/A 0.0 0.0	0.2156 [0.2000]	107.8%			
PFMBA	(279.0 / 85.0) 43879	(5.34, 1.08) (N/A, 0.00, 0.0)	410.9	N/A 0.0 0.0	0.1753 [0.2000]	87.6%			
NFDHA	(295.0 / 201.0) 42344 (295.0 / 85.0) 31617	(5.99, 0.98) (N/A, 0.01, 0.0)	293.7 311.1	0.7467 86.9 86.9	0.2169 [0.2000]	108.4%			
13C3_PFBa_IIS	(216.0 / 172.0) 235272	(3.65, N/A) (N/A, 0.01, N/A)	540.1	N/A	1.0925 [1.0000]	109.2% {102.8%}			
13C2_PFHxA_IIS	(315.0 / 270.0) 382146	(6.11, N/A) (N/A, 0.01, N/A)	614.8	N/A	1.0067 [1.0000]	100.7% {98.3%}			
13C4_PFOA_IIS	(417.0 / 372.0) 356226	(7.85, N/A) (N/A, 0.01, N/A)	561.8	N/A	0.9869 [1.0000]	98.7% {94.9%}			
13C5_PFNAl_IIS	(468.0 / 423.0) 288939	(8.59, N/A) (N/A, 0.00, N/A)	391.8	N/A	0.9826 [1.0000]	98.3% {94.5%}			

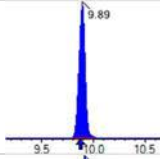
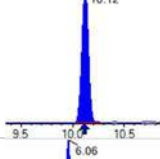
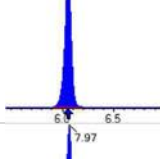
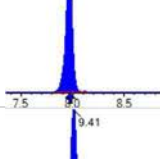
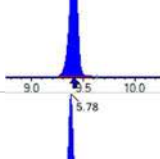
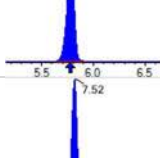
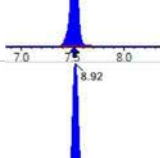
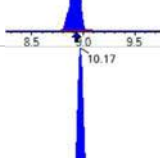
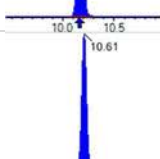
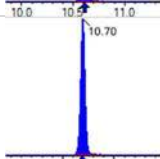



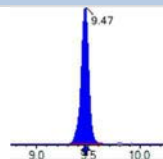
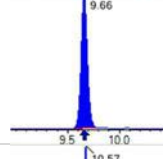
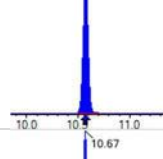
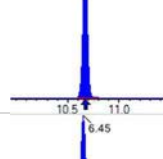
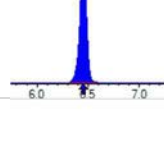
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Instrument: Saphira
Type: Sciex Q3 5500

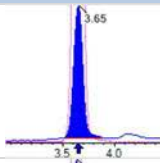
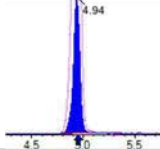
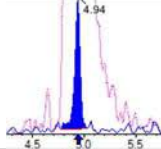
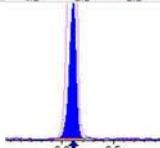
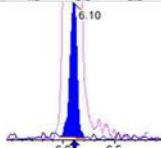
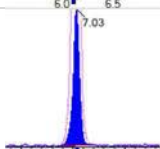
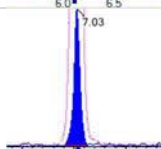
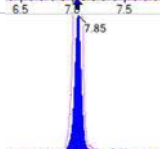
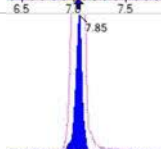
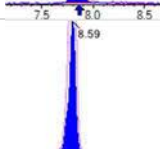
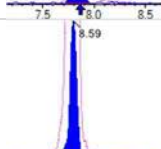
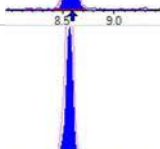
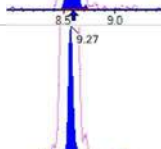
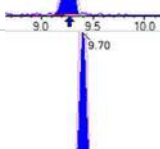
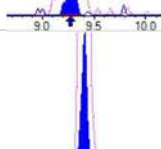
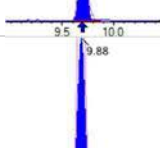
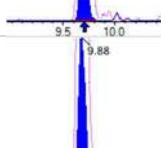
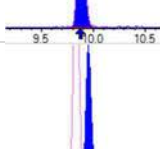
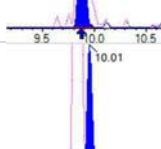
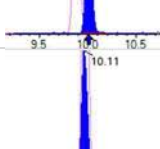
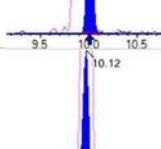
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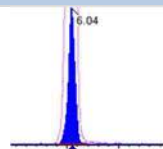
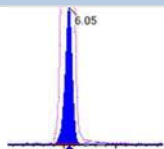
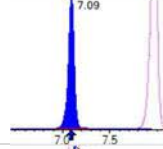
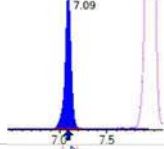
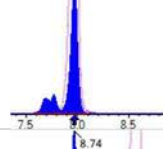
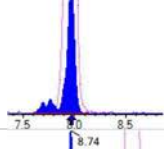
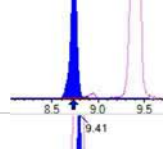
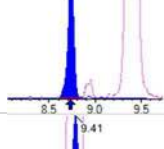
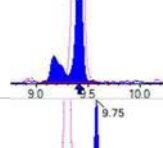
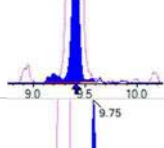
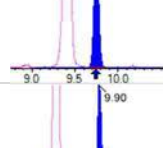
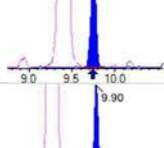
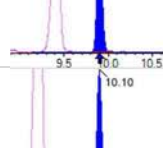
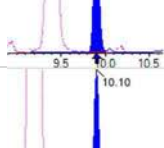
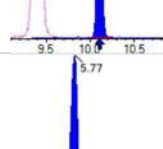
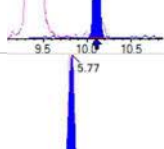
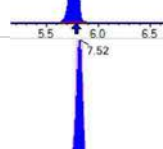
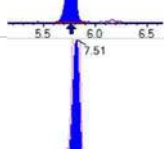
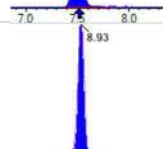
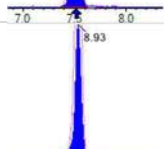
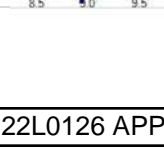
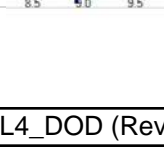
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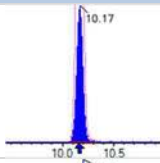
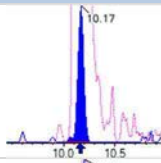
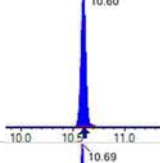
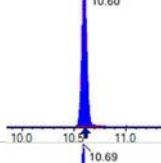
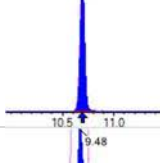
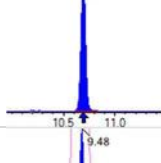
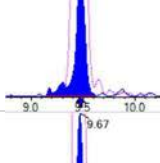
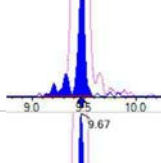
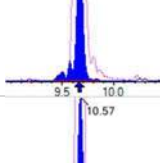
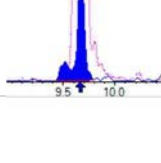
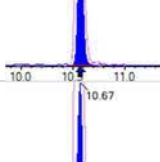
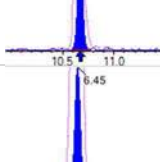
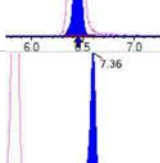
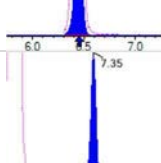
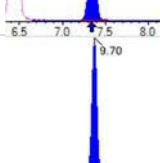
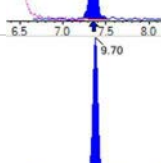
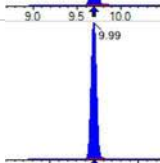
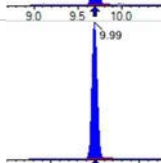
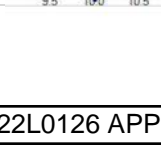
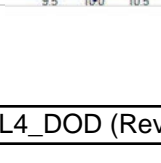
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 353077	(9.26, N/A) (N/A, 0.00, N/A)	332.9	N/A	1.0365 [1.0000]	103.6% {96.8%}			
18O2_PFHxS_IIS	(403.0 / 83.9) 636498	(7.97, N/A) (N/A, 0.00, N/A)	788.3	N/A	1.0519 [1.0000]	105.2% {100.4%}			
13C4_PFOS_IIS	(503.0 / 79.9) 710383	(9.41, N/A) (N/A, 0.00, N/A)	498.2	N/A	1.1017 [1.0000]	110.2% {114.6%}			
13C4_PFBA_EIS	(217.0 / 172.0) 1960919	(3.65, N/A) (N/A, 0.01, N/A)	767.1	N/A	8.3017 [8.0000]	103.8% {105.8%}			
13C5_PFPeA_EIS	(268.0 / 223.0) 1266139	(4.95, N/A) (N/A, 0.00, N/A)	607.9	N/A	4.3916 [4.0000]	109.8% {107.1%}			
13C5_PFHxA_EIS	(318.0 / 273.0) 801655	(6.11, N/A) (N/A, 0.01, N/A)	529.0	N/A	2.0500 [2.0000]	102.5% {107.2%}			
13C4_PFHpA_EIS	(367.0 / 322.0) 707139	(7.04, N/A) (N/A, 0.01, N/A)	438.7	N/A	2.0816 [2.0000]	104.1% {103.0%}			
13C8_PFOA_EIS	(421.0 / 376.0) 791606	(7.85, N/A) (N/A, 0.01, N/A)	516.0	N/A	2.1719 [2.0000]	108.6% {103.3%}			
13C9_PFNA_EIS	(472.0 / 427.0) 328554	(8.59, N/A) (N/A, 0.00, N/A)	417.0	N/A	1.0944 [1.0000]	109.4% {107.3%}			
13C6_PFDA_EIS	(519.0 / 474.0) 413773	(9.26, N/A) (N/A, -0.01, N/A)	356.1	N/A	0.9702 [1.0000]	97.0% {95.8%}			
13C7_PFUnA_EIS	(570.0 / 525.0) 604786	(9.70, N/A) (N/A, 0.00, N/A)	335.5	N/A	1.1531 [1.0000]	115.3% {107.7%}			

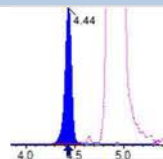
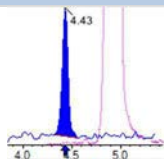
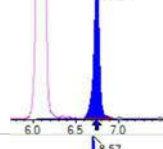
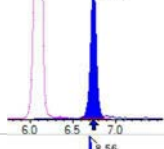
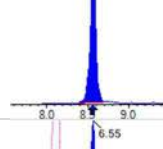
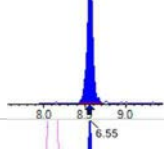
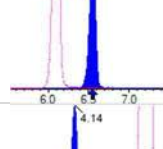
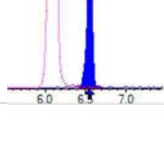
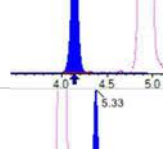
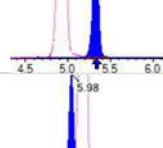
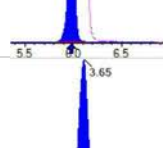
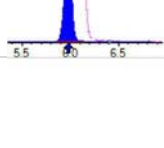
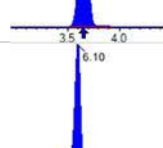
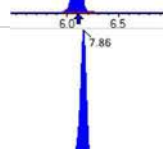
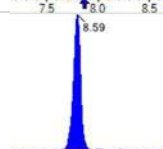
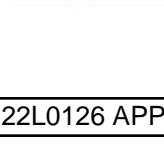
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 521890	(9.89, N/A) (N/A, 0.01, N/A)	529.6	N/A	0.9971 [1.0000]	99.7% {90.3%}			
13C2_PFTeDA_EIS	(715.0 / 670.0) 306266	(10.12, N/A) (N/A, 0.00, N/A)	575.2	N/A	0.9235 [1.0000]	92.3% {91.6%}			
13C3_PFBs_EIS	(302.0 / 80.0) 2072368	(6.06, N/A) (N/A, 0.01, N/A)	568.2	N/A	2.1513 [2.0000]	107.6% {113.2%}			
13C3_PFHxS_EIS	(402.0 / 80.0) 1110634	(7.97, N/A) (N/A, 0.00, N/A)	712.9	N/A	2.1293 [2.0000]	106.5% {111.7%}			
13C8_PFOS_EIS	(507.0 / 80.0) 1583007	(9.41, N/A) (N/A, 0.00, N/A)	455.7	N/A	1.8491 [2.0000]	92.5% {96.5%}			
13C2_4:2FTS_EIS	(329.0 / 81.0) 414361	(5.78, N/A) (N/A, 0.01, N/A)	552.1	N/A	3.8073 [4.0000]	95.2% {95.6%}			
13C2_6:2FTS_EIS	(429.0 / 81.0) 570226	(7.52, N/A) (N/A, 0.00, N/A)	684.1	N/A	3.9599 [4.0000]	99.0% {99.0%}			
13C2_8:2FTS_EIS	(529.0 / 81.0) 752759	(8.92, N/A) (N/A, -0.01, N/A)	680.9	N/A	4.1470 [4.0000]	103.7% {118.5%}			
13C8_PFOsa_EIS	(506.0 / 78.0) 2058681	(10.17, N/A) (N/A, 0.00, N/A)	695.8	N/A	2.0603 [2.0000]	103.0% {114.5%}			
D3_NMeFOSA_EIS	(515.0 / 169.0) 302654	(10.61, N/A) (N/A, 0.00, N/A)	603.9	N/A	1.6018 [2.0000]	80.1% {81.9%}			
D5_NEtFOSA_EIS	(531.0 / 169.0) 301498	(10.70, N/A) (N/A, 0.00, N/A)	893.8	N/A	1.7421 [2.0000]	87.1% {88.5%}			

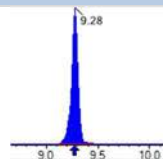
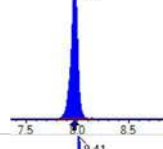
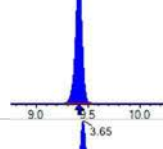
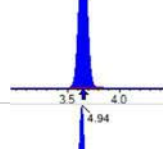
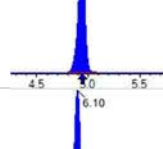
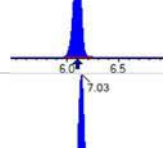
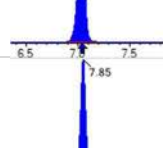
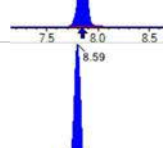
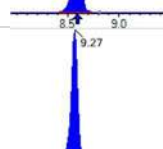
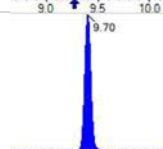
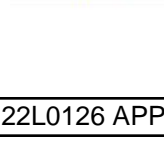
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 1145420	(9.47, N/A) (N/A, 0.00, N/A)	409.0	N/A	4.2524 [4.0000]	106.3% {112.5%}			
D5_EtFOSAA_EIS	(589.0 / 419.0) 831346	(9.66, N/A) (N/A, 0.00, N/A)	103.6	N/A	3.8818 [4.0000]	97.0% {114.9%}			
D7_NMeFOSE_EIS	(623.0 / 58.9) 700011	(10.57, N/A) (N/A, 0.00, N/A)	1143.1	N/A	16.9568 [20.0000]	84.8% {86.8%}			
D9_NEtFOSE_EIS	(639.0 / 58.9) 309835	(10.67, N/A) (N/A, 0.00, N/A)	1258.0	N/A	16.2759 [20.0000]	81.4% {81.1%}			
13C3_HFPODA_EIS	(287.0 / 169.0) 1884053	(6.45, N/A) (N/A, 0.01, N/A)	709.3	N/A	8.6123 [8.0000]	107.7% {107.1%}			

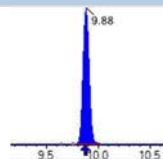
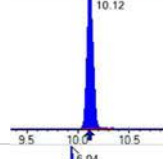
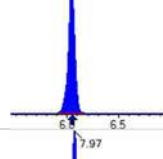
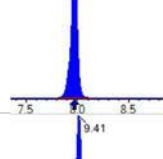
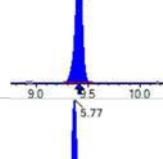
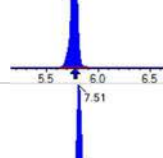
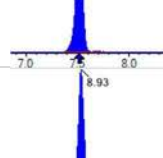
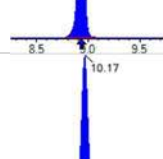
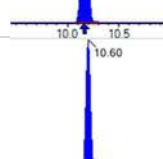
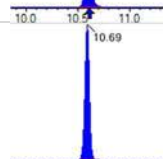
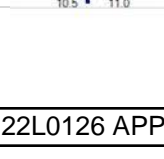
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 402296	(3.65 , 1.00) (0.00 , N/A , 0.0)	247.7	N/A 0.0 0.0	1.9345 [2.0000]	96.7%			
PFPeA	(263.0 / 219.0) 279074 (263.0 / 69.0) 2616	(4.94 , 1.00) (0.00 , N/A , 0.1)	430.7 53.7	0.0094 90.7 90.7	0.9444 [1.0000]	94.4%			
PFHxA	(313.0 / 269.0) 189785 (313.0 / 119.0) 16584	(6.10 , 1.00) (0.00 , N/A , 0.1)	274.4 85.4	0.0874 89.8 89.8	0.4763 [0.5000]	95.3%			
PFHpA	(363.0 / 319.0) 164005 (363.0 / 169.0) 51208	(7.03 , 1.00) (0.00 , N/A , 0.3)	245.4 168.5	0.3122 109.1 109.1	0.4511 [0.5000]	90.2%			
PFOA	(413.0 / 369.0) 190363 (413.0 / 169.0) 60265	(7.85 , 1.00) (0.00 , N/A , -0.1)	326.2 295.2	0.3166 104.3 104.3	0.4894 [0.5000]	97.9%			
PFNA	(463.0 / 419.0) 130560 (463.0 / 169.0) 30420	(8.59 , 1.00) (0.00 , N/A , 0.2)	267.2 226.3	0.2330 110.0 110.0	0.4508 [0.5000]	90.2%			
PFDA	(513.0 / 469.0) 199011 (513.0 / 169.0) 19081	(9.27 , 1.00) (0.00 , N/A , -0.1)	212.3 136.6	0.0959 104.0 104.0	0.4371 [0.5000]	87.4%			
PFOUnA	(563.0 / 519.0) 208100 (563.0 / 169.0) 25692	(9.70 , 1.00) (0.00 , N/A , -0.3)	350.4 169.5	0.1235 160.5 160.5	0.4435 [0.5000]	88.7%			IR2,
PFDaA	(613.0 / 569.0) 210701 (613.0 / 169.0) 31544	(9.88 , 1.00) (0.00 , N/A , 0.3)	355.6 222.1	0.1497 111.1 111.1	0.4681 [0.5000]	93.6%			
PFTTrDA	(663.0 / 619.0) 247314 (663.0 / 169.0) 55724	(10.01 , 1.01) (N/A , 0.00 , -0.1)	356.0 281.3	0.2253 103.4 103.4	0.6297 [0.5000]	125.9%			
PFTeDA	(713.0 / 669.0) 166212 (713.0 / 169.0) 26500	(10.11 , 1.00) (0.00 , N/A , -0.3)	230.8 85.9	0.1594 80.8 80.8	0.4141 [0.5000]	82.8%			

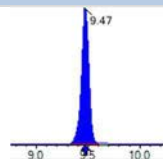
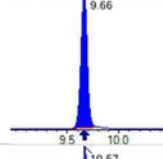
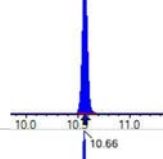
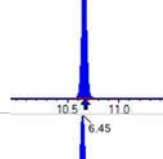
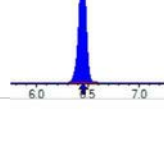
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (Δ RT-[min], Δ RT- CV[min], Δ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 242663 (299.0 / 99.0) 164768	(6.04 , 1.00) (0.00 , N/A , -0.1)	687.1 369.0	0.6790 103.3 103.3	0.4100 [0.4424]	92.7%			
PFPeS	(349.0 / 80.0) 434855 (349.0 / 99.0) 150901	(7.09 , 0.89) (N/A , 0.00 , 0.1)	488.1 587.8	0.3470 93.6 93.6	0.4273 [0.4692]	91.1%			
PFHxS	(399.0 / 80.0) 361023 (399.0 / 99.0) 126083	(7.97 , 1.00) (0.00 , N/A , 0.1)	598.8 426.9	0.3492 107.1 107.1	0.4028 [0.4555]	88.4%			
PFHpS	(449.0 / 80.0) 334962 (449.0 / 99.0) 83272	(8.74 , 0.93) (N/A , 0.01 , 0.0)	395.3 293.5	0.2486 95.4 95.4	0.4048 [0.4757]	85.1%			
PFOS	(499.0 / 80.0) 421281 (499.0 / 99.0) 109705	(9.41 , 1.00) (0.00 , N/A , 0.4)	199.5 129.7	0.2604 125.2 125.2	0.4423 [0.4637]	95.4%			
PFNS	(549.0 / 80.0) 485854 (549.0 / 99.0) 121847	(9.75 , 1.04) (N/A , 0.00 , -0.2)	589.3 328.9	0.2508 105.4 105.4	0.4500 [0.4799]	93.8%			
PFDS	(599.0 / 80.0) 586005 (599.0 / 99.0) 131066	(9.90 , 1.05) (N/A , 0.00 , 0.1)	870.1 303.9	0.2237 85.0 85.0	0.4489 [0.4816]	93.2%			
PFDoS	(699.0 / 80.0) 284529 (699.0 / 99.0) 55248	(10.10 , 1.07) (N/A , 0.00 , -0.1)	471.3 229.3	0.1942 99.0 99.0	0.4628 [0.4848]	95.5%			
4:2FTS	(327.0 / 307.0) 795210 (327.0 / 81.0) 390917	(5.77 , 1.00) (0.00 , N/A , -0.1)	747.1 345.9	0.4916 68.7 68.7	1.9941 [1.8691]	106.7%			
6:2FTS	(427.0 / 407.0) 423573 (427.0 / 81.0) 288351	(7.52 , 1.00) (0.00 , N/A , 0.2)	382.4 457.1	0.6808 92.1 92.1	1.7457 [1.8981]	92.0%			
8:2FTS	(527.0 / 507.0) 576340 (527.0 / 81.0) 354122	(8.93 , 1.00) (0.00 , N/A , -0.1)	451.1 406.3	0.6144 100.4 100.4	1.8926 [1.9166]	98.7%			

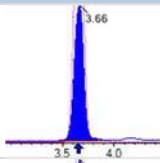
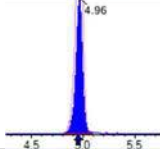
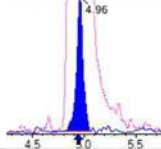
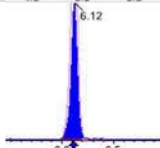
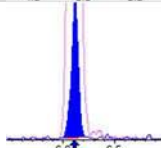
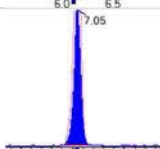
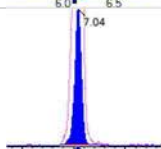
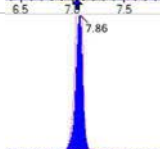
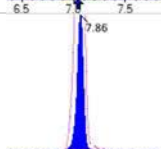
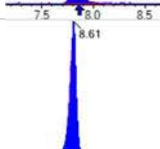
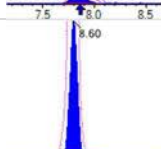
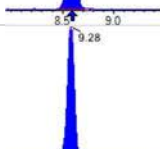
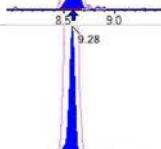
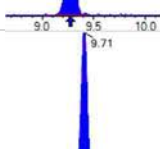
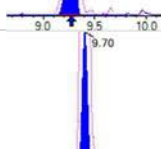
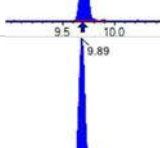
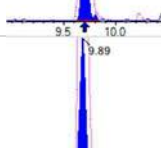
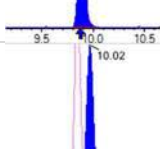
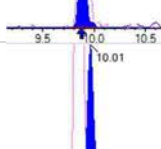
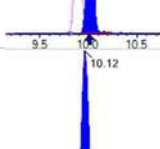
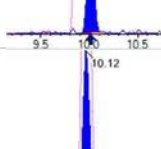
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 519474 (498.0 / 478.0) 11090	(10.17 , 1.00) (0.00 , N/A , -0.1)	820.5 116.7	0.0213 102.3 102.3	0.4908 [0.5000]	98.2%			
NMeFOSA	(512.0 / 219.0) 303557 (512.0 / 169.0) 212046	(10.60 , 1.00) (0.00 , N/A , 0.0)	1055.8 770.4	0.6985 100.9 100.9	2.0811 [2.0000]	104.1%			
NEIFOSA	(526.0 / 219.0) 283277 (526.0 / 169.0) 309635	(10.69 , 1.00) (0.00 , N/A , 0.1)	1004.6 653.9	1.0930 110.1 110.1	1.9023 [2.0000]	95.1%			
NMeFOSAA	(570.0 / 419.0) 106673 (570.0 / 483.0) 59479	(9.48 , 1.00) (0.00 , N/A , -0.2)	123.6 149.2	0.5576 100.2 100.2	0.4373 [0.5000]	87.5%			
NEIFOSAA	(584.0 / 419.0) 82888 (584.0 / 526.0) 52662	(9.67 , 1.00) (0.01 , N/A , -0.1)	415.2 167.0	0.6353 107.1 107.1	0.4136 [0.5000]	82.7%			
NMeFOSE	(616.0 / 59.0) 78568	(10.57 , 1.00) (0.00 , N/A , 0.0)	382.8	N/A 0.0 0.0	1.8458 [2.0000]	92.3%			
NEtFOSE	(630.0 / 59.0) 15635	(10.67 , 1.00) (0.01 , N/A , 0.0)	310.1	N/A 0.0 0.0	1.8679 [2.0000]	93.4%			
HFPO-DA	(285.0 / 169.0) 159437 (285.0 / 185.0) 364168	(6.45 , 1.00) (0.00 , N/A , 0.0)	804.5 666.9	2.2841 89.1 89.1	0.9782 [1.0000]	97.8%			
ADONA	(377.0 / 85.0) 531015 (377.0 / 251.0) 66200	(7.36 , 1.14) (N/A , 0.01 , 0.1)	499.3 202.1	0.1247 101.3 101.3	0.8176 [0.9427]	86.7%			
9CI-Pf3ONS	(531.0 / 351.0) 1441912 (533.0 / 353.0) 517547	(9.70 , 1.50) (N/A , 0.00 , 0.0)	464.9 391.2	0.3589 113.6 113.6	0.8128 [0.9333]	87.1%			
11CI-PF3OUDS	(631.0 / 451.0) 913812 (633.0 / 453.0) 303191	(9.99 , 1.55) (N/A , 0.00 , 0.2)	684.6 427.5	0.3318 107.1 107.1	0.9102 [0.9432]	96.5%			

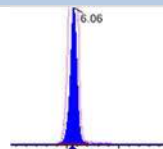
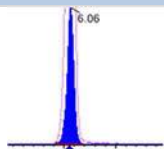
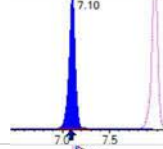
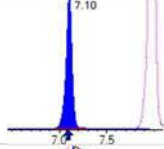
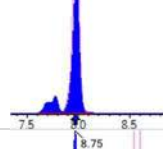
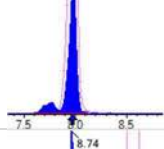
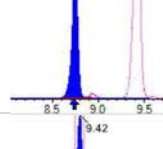
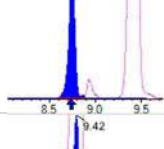
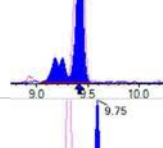
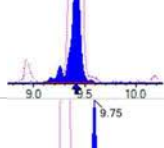
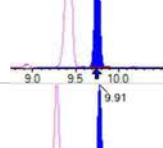
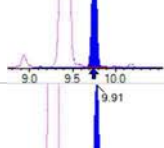
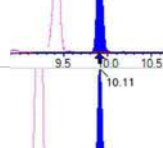
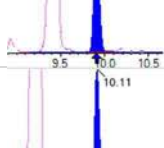
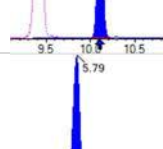
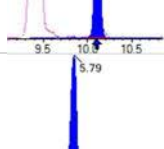
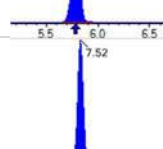
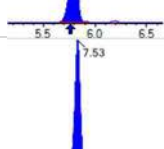
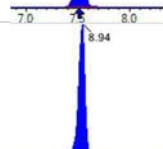
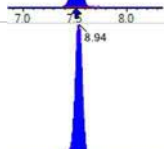

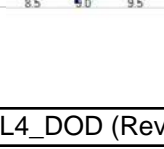
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 19427 (241.0 / 117.0) 23350	(4.44 , 0.90) (N/A , 0.00 , 0.2)	305.4 93.8	1.2020 91.4 91.4	1.9127 [2.0000]	95.6%			
5:3FTCA	(341.0 / 236.7) 122307 (341.0 / 217.0) 179981	(6.75 , 1.11) (N/A , 0.00 , 0.2)	356.0 241.6	1.4716 82.0 82.0	2.0052 [2.0000]	100.3%			
7:3FTCA	(441.0 / 317.0) 139476 (441.0 / 337.0) 129368	(8.57 , 1.40) (N/A , 0.01 , 0.1)	234.7 263.1	0.9275 112.5 112.5	1.7554 [2.0000]	87.8%			
PFEESA	(315.0 / 135.0) 264065 (315.0 / 83.0) 88899	(6.55 , 1.07) (N/A , 0.01 , 0.0)	555.4 279.4	0.3367 110.4 110.4	0.7217 [0.8925]	80.9%			
PFMPA	(229.0 / 85.0) 77721	(4.14 , 0.84) (N/A , 0.00 , 0.0)	683.4	N/A 0.0 0.0	0.9006 [1.0000]	90.1%			
PFMBA	(279.0 / 85.0) 228831	(5.33 , 1.08) (N/A , -0.01 , 0.0)	728.0	N/A 0.0 0.0	0.9298 [1.0000]	93.0%			
NFDHA	(295.0 / 201.0) 179208 (295.0 / 85.0) 167545	(5.98 , 0.98) (N/A , 0.00 , 0.1)	644.8 431.5	0.9349 108.8 108.8	0.9162 [1.0000]	91.6%			
13C3_PFBA_IIS	(216.0 / 172.0) 220234	(3.65 , N/A) (N/A , 0.01 , N/A)	540.1	N/A	1.0227 [1.0000]	102.3% { 96.2% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 398022	(6.10 , N/A) (N/A , 0.00 , N/A)	488.7	N/A	1.0485 [1.0000]	104.8% { 102.4% }			
13C4_PFOA_IIS	(417.0 / 372.0) 336349	(7.86 , N/A) (N/A , 0.01 , N/A)	494.2	N/A	0.9318 [1.0000]	93.2% { 89.6% }			
13C5_PFNA_IIS	(468.0 / 423.0) 280637	(8.59 , N/A) (N/A , 0.00 , N/A)	376.1	N/A	0.9543 [1.0000]	95.4% { 91.8% }			

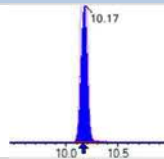
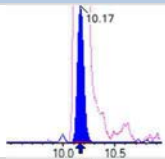
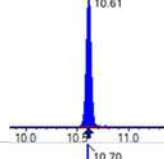
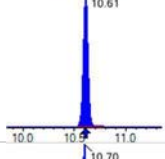
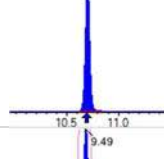
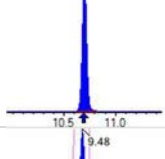
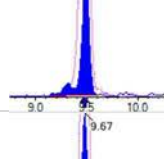
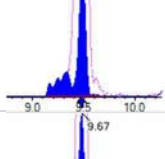
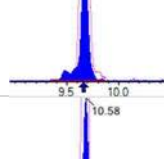
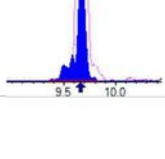
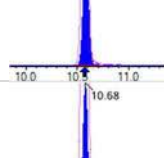
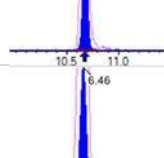
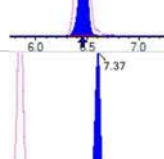
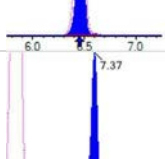
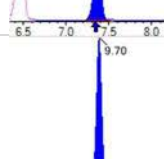
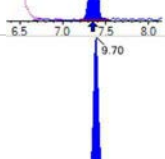
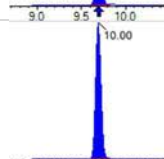
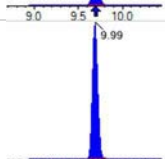
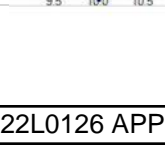
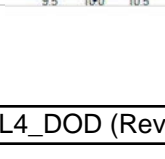
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 350984	(9.28 , N/A) (N/A , 0.01 , N/A)	437.4	N/A	1.0303 [1.0000]	103.0% { 96.2% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 570276	(7.97 , N/A) (N/A , 0.01 , N/A)	714.9	N/A	0.9425 [1.0000]	94.2% { 89.9% }			
13C4_PFOS_IIS	(503.0 / 79.9) 710149	(9.41 , N/A) (N/A , 0.00 , N/A)	467.7	N/A	1.1013 [1.0000]	110.1% { 114.5% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1780653	(3.65 , N/A) (N/A , 0.01 , N/A)	707.6	N/A	8.0532 [8.0000]	100.7% { 96.1% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1244826	(4.94 , N/A) (N/A , -0.01 , N/A)	564.6	N/A	4.1455 [4.0000]	103.6% { 105.3% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 803147	(6.10 , N/A) (N/A , 0.00 , N/A)	608.2	N/A	1.9719 [2.0000]	98.6% { 107.4% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 693985	(7.03 , N/A) (N/A , 0.00 , N/A)	600.5	N/A	1.9614 [2.0000]	98.1% { 101.1% }			
13C8_PFOA_EIS	(421.0 / 376.0) 730263	(7.85 , N/A) (N/A , 0.00 , N/A)	601.2	N/A	2.1220 [2.0000]	106.1% { 95.3% }			
13C9_PFNA_EIS	(472.0 / 427.0) 300091	(8.59 , N/A) (N/A , 0.01 , N/A)	293.5	N/A	1.0291 [1.0000]	102.9% { 98.0% }			
13C6_PFDA_EIS	(519.0 / 474.0) 459151	(9.27 , N/A) (N/A , 0.00 , N/A)	293.8	N/A	1.0830 [1.0000]	108.3% { 106.4% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 514136	(9.70 , N/A) (N/A , 0.00 , N/A)	546.5	N/A	0.9861 [1.0000]	98.6% { 91.6% }			

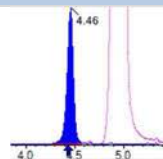
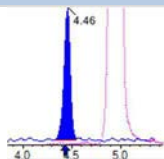
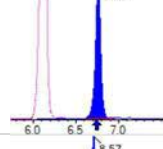
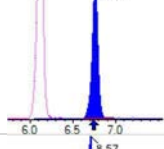
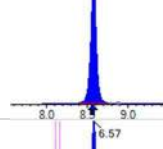
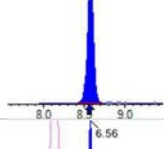
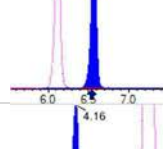
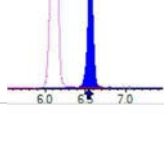
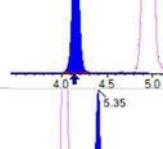
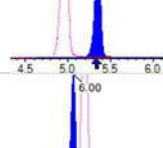
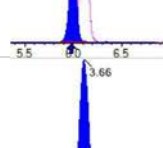
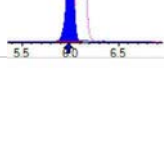
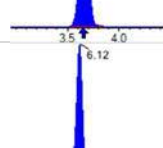
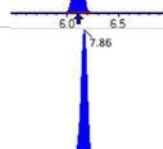
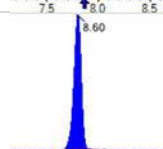
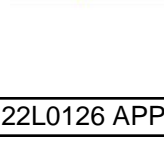
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 469712	(9.88 , N/A) (N/A , 0.00 , N/A)	439.4	N/A	0.9028 [1.0000]	90.3% { 81.3% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 396839	(10.12 , N/A) (N/A , 0.00 , N/A)	1920.2	N/A	1.2037 [1.0000]	120.4% { 118.7% }			
13C3_PFBs_EIS	(302.0 / 80.0) 1855337	(6.04 , N/A) (N/A , 0.00 , N/A)	711.2	N/A	2.1496 [2.0000]	107.5% { 101.4% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1034943	(7.97 , N/A) (N/A , 0.01 , N/A)	751.5	N/A	2.2146 [2.0000]	110.7% { 104.1% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1635848	(9.41 , N/A) (N/A , 0.01 , N/A)	365.2	N/A	1.9115 [2.0000]	95.6% { 99.7% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 469106	(5.77 , N/A) (N/A , -0.01 , N/A)	740.1	N/A	4.8108 [4.0000]	120.3% { 108.2% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 604520	(7.51 , N/A) (N/A , 0.00 , N/A)	669.1	N/A	4.6855 [4.0000]	117.1% { 104.9% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 780904	(8.93 , N/A) (N/A , 0.00 , N/A)	536.1	N/A	4.8016 [4.0000]	120.0% { 122.9% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 1825451	(10.17 , N/A) (N/A , 0.00 , N/A)	763.9	N/A	1.8275 [2.0000]	91.4% { 101.5% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 300317	(10.60 , N/A) (N/A , 0.00 , N/A)	873.8	N/A	1.5899 [2.0000]	79.5% { 81.3% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 300255	(10.69 , N/A) (N/A , 0.00 , N/A)	805.0	N/A	1.7355 [2.0000]	86.8% { 88.2% }			

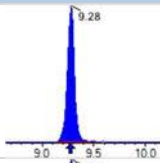
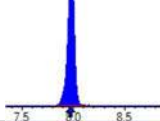
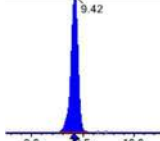
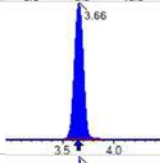
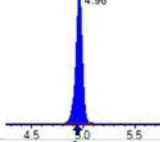
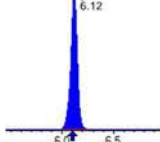
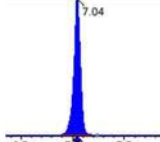
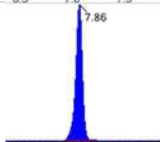
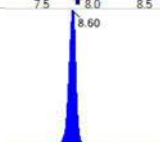
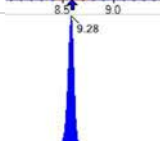
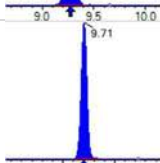
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 1075145	(9.47, N/A) (N/A, 0.01, N/A)	285.3	N/A	3.9929 [4.0000]	99.8% { 105.6% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 813269	(9.66, N/A) (N/A, 0.01, N/A)	150.4	N/A	3.7987 [4.0000]	95.0% { 112.4% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 697263	(10.57, N/A) (N/A, 0.00, N/A)	967.8	N/A	16.8958 [20.0000]	84.5% { 86.4% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 322625	(10.66, N/A) (N/A, 0.00, N/A)	1375.8	N/A	16.9534 [20.0000]	84.8% { 84.5% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1878388	(6.45, N/A) (N/A, 0.00, N/A)	838.5	N/A	8.2440 [8.0000]	103.0% { 106.8% }			

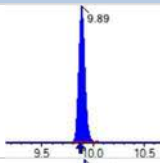
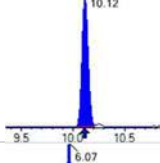
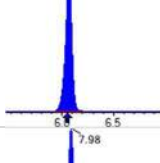
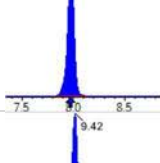
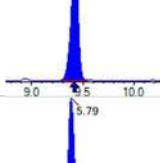
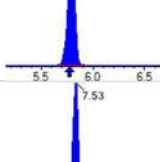
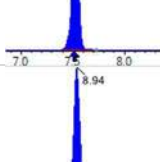
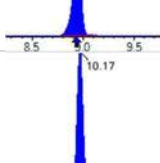
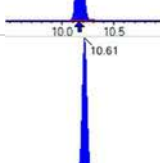
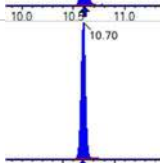

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 832528	(3.66 , 1.00) (0.00 , N/A , 0.0)	410.9	N/A 0.0 0.0	4.0688 [4.0000]	101.7%			
PFPeA	(263.0 / 219.0) 512631 (263.0 / 69.0) 6240	(4.96 , 1.00) (0.00 , N/A , 0.2)	591.1 102.5	0.0122 117.8 117.8	1.9248 [2.0000]	96.2%			
PFHxA	(313.0 / 269.0) 398514 (313.0 / 119.0) 31864	(6.12 , 1.00) (0.00 , N/A , 0.1)	451.3 152.0	0.0800 82.2 82.2	0.9987 [1.0000]	99.9%			
PFHpA	(363.0 / 319.0) 343559 (363.0 / 169.0) 103023	(7.05 , 1.00) (0.00 , N/A , 0.1)	374.1 303.8	0.2999 104.8 104.8	0.9855 [1.0000]	98.6%			
PFOA	(413.0 / 369.0) 445614 (413.0 / 169.0) 139652	(7.86 , 1.00) (0.00 , N/A , 0.0)	578.5 539.6	0.3134 103.2 103.2	1.0647 [1.0000]	106.5%			
PFNA	(463.0 / 419.0) 325945 (463.0 / 169.0) 62613	(8.61 , 1.00) (0.01 , N/A , 0.4)	434.6 243.4	0.1921 90.7 90.7	1.0650 [1.0000]	106.5%			
PFDA	(513.0 / 469.0) 411404 (513.0 / 169.0) 43420	(9.28 , 1.00) (0.00 , N/A , -0.1)	306.1 225.4	0.1055 114.5 114.5	0.9753 [1.0000]	97.5%			
PFUnA	(563.0 / 519.0) 506725 (563.0 / 169.0) 48794	(9.71 , 1.00) (0.00 , N/A , 0.3)	470.5 218.6	0.0963 125.2 125.2	0.9819 [1.0000]	98.2%			
PFDoA	(613.0 / 569.0) 473507 (613.0 / 169.0) 64431	(9.89 , 1.00) (0.00 , N/A , 0.1)	407.4 237.7	0.1361 101.0 101.0	1.0317 [1.0000]	103.2%			
PFTTrDA	(663.0 / 619.0) 396925 (663.0 / 169.0) 80681	(10.02 , 1.01) (N/A , 0.01 , 0.3)	341.0 146.7	0.2033 93.3 93.3	0.9912 [1.0000]	99.1%			
PFTeDA	(713.0 / 669.0) 322090 (713.0 / 169.0) 59556	(10.12 , 1.00) (0.00 , N/A , 0.0)	352.5 155.9	0.1849 93.7 93.7	0.9703 [1.0000]	97.0%			

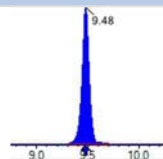
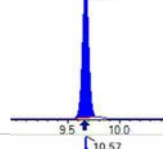
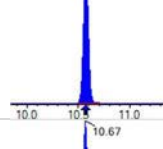
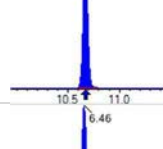
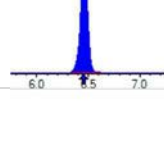
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 506545 (299.0 / 99.0) 350471	(6.06 , 1.00) (0.00 , N/A , 0.0)	559.6 554.7	0.6919 105.3 105.3	0.8166 [0.8847]	92.3%			
PFPeS	(349.0 / 80.0) 883731 (349.0 / 99.0) 312843	(7.10 , 0.89) (N/A , 0.01 , 0.1)	526.3 532.1	0.3540 95.5 95.5	0.8840 [0.9384]	94.2%			
PFHxS	(399.0 / 80.0) 803579 (399.0 / 99.0) 265749	(7.98 , 1.00) (0.00 , N/A , 0.1)	622.2 783.4	0.3307 101.4 101.4	0.9126 [0.9110]	100.2%			
PFHpS	(449.0 / 80.0) 797379 (449.0 / 99.0) 211887	(8.75 , 0.93) (N/A , 0.01 , 0.1)	489.2 408.0	0.2657 102.0 102.0	0.9256 [0.9514]	97.3%			
PFOS	(499.0 / 80.0) 877263 (499.0 / 99.0) 212328	(9.42 , 1.00) (0.00 , N/A , 0.2)	299.1 479.7	0.2420 116.4 116.4	0.8848 [0.9275]	95.4%			
PFNS	(549.0 / 80.0) 1030388 (549.0 / 99.0) 259198	(9.75 , 1.04) (N/A , 0.01 , 0.0)	568.0 392.2	0.2516 105.7 105.7	0.9168 [0.9599]	95.5%			
PFDS	(599.0 / 80.0) 1409403 (599.0 / 99.0) 286566	(9.91 , 1.05) (N/A , 0.01 , -0.1)	966.3 304.0	0.2033 77.3 77.3	1.0371 [0.9631]	107.7%			
PFDoS	(699.0 / 80.0) 600862 (699.0 / 99.0) 132054	(10.11 , 1.07) (N/A , 0.00 , -0.1)	673.8 529.4	0.2198 112.1 112.1	0.9389 [0.9696]	96.8%			
4:2FTS	(327.0 / 307.0) 1325648 (327.0 / 81.0) 858951	(5.79 , 1.00) (0.00 , N/A , -0.2)	602.2 447.5	0.6479 90.5 90.5	3.6040 [3.7381]	96.4%			
6:2FTS	(427.0 / 407.0) 831488 (427.0 / 81.0) 654270	(7.52 , 1.00) (0.00 , N/A , -0.1)	648.4 598.6	0.7869 106.5 106.5	3.3380 [3.7962]	87.9%			
8:2FTS	(527.0 / 507.0) 1096107 (527.0 / 81.0) 682152	(8.94 , 1.00) (0.00 , N/A , 0.1)	554.3 444.4	0.6223 101.7 101.7	3.5798 [3.8332]	93.4%			

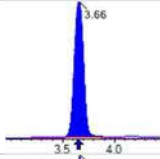
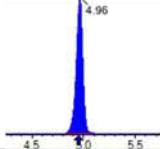
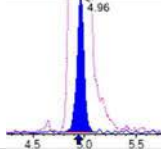
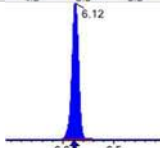
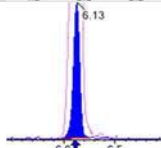
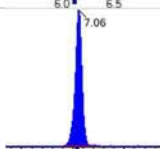
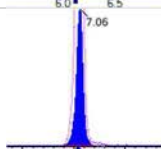
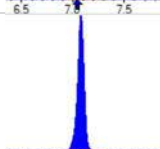
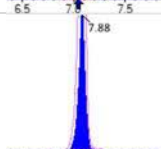
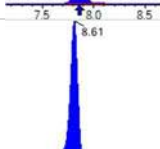
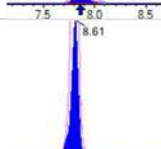
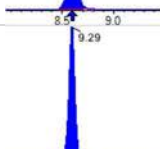
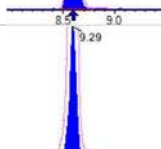
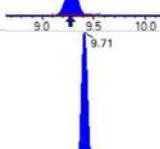
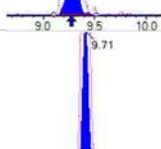
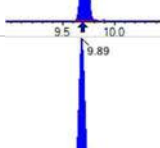
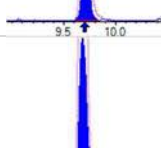
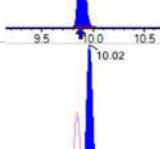
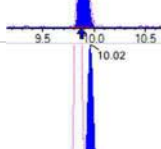
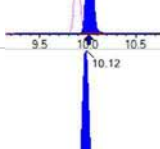
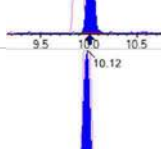
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (Δ RT-[min], Δ RT- CV[min], Δ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 1073714 (498.0 / 478.0) 24202	(10.17 , 1.00) (0.00 , N/A , 0.4)	793.2 308.9	0.0225 108.0 108.0	0.9167 [1.0000]	91.7%			
NMeFOSA	(512.0 / 219.0) 642378 (512.0 / 169.0) 466647	(10.61 , 1.00) (0.00 , N/A , 0.0)	1206.0 1189.2	0.7264 105.0 105.0	4.1281 [4.0000]	103.2%			
NEiFOSA	(526.0 / 219.0) 647229 (526.0 / 169.0) 693609	(10.70 , 1.00) (0.00 , N/A , 0.0)	1421.0 942.6	1.0717 108.0 108.0	4.0682 [4.0000]	101.7%			
NMeFOSAA	(570.0 / 419.0) 216630 (570.0 / 483.0) 123778	(9.49 , 1.00) (0.01 , N/A , 0.3)	202.7 287.9	0.5714 102.7 102.7	0.9960 [1.0000]	99.6%			
NEiFOSAA	(584.0 / 419.0) 225734 (584.0 / 526.0) 141303	(9.67 , 1.00) (0.00 , N/A , 0.0)	673.6 919.8	0.6260 105.5 105.5	1.0845 [1.0000]	108.5%			
NMeFOSE	(616.0 / 59.0) 174231	(10.58 , 1.00) (0.01 , N/A , 0.0)	874.8	N/A 0.0 0.0	3.9110 [4.0000]	97.8%			
NEiFOSE	(630.0 / 59.0) 33658	(10.68 , 1.00) (0.01 , N/A , 0.0)	650.4	N/A 0.0 0.0	3.7943 [4.0000]	94.9%			
HFPO-DA	(285.0 / 169.0) 276294 (285.0 / 185.0) 705858	(6.46 , 1.00) (0.00 , N/A , 0.1)	644.5 631.9	2.5547 99.7 99.7	1.7828 [2.0000]	89.1%			
ADONA	(377.0 / 85.0) 1106894 (377.0 / 251.0) 148471	(7.37 , 1.14) (N/A , 0.02 , 0.0)	459.7 275.9	0.1341 109.0 109.0	1.7922 [1.8854]	95.1%			
9CI-Pf3ONS	(531.0 / 351.0) 3409617 (533.0 / 353.0) 959415	(9.70 , 1.50) (N/A , 0.01 , 0.1)	484.7 596.6	0.2814 89.1 89.1	2.0214 [1.8665]	108.3%			
11CI-PF3OUDS	(631.0 / 451.0) 1843818 (633.0 / 453.0) 554137	(10.00 , 1.55) (N/A , 0.00 , 0.1)	930.5 875.4	0.3005 97.0 97.0	1.9314 [1.8864]	102.4%			

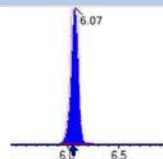
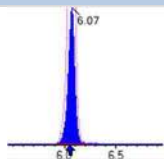
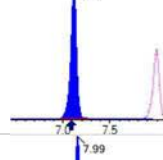
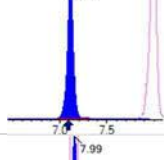
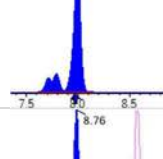
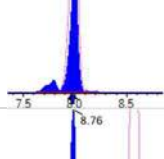
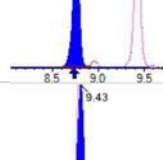
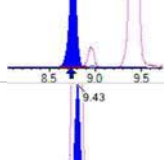
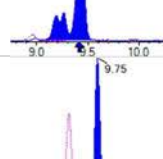
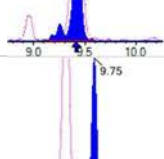
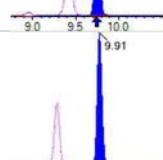
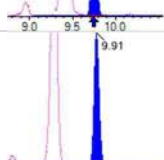
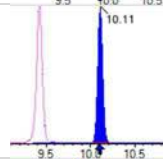
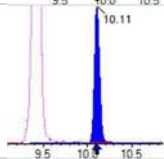
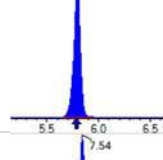
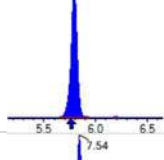
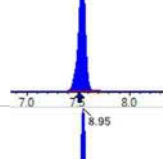
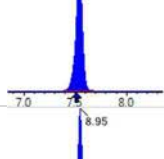
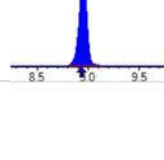
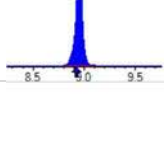
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 31954 (241.0 / 117.0) 46435	(4.46 , 0.90) (N/A , 0.02 , 0.0)	463.1 143.2	1.4532 110.5 110.5	3.4905 [4.0000]	87.3%			
5:3FTCA	(341.0 / 236.7) 243074 (341.0 / 217.0) 392999	(6.76 , 1.10) (N/A , 0.02 , 0.0)	423.1 453.4	1.6168 90.1 90.1	3.9800 [4.0000]	99.5%			
7:3FTCA	(441.0 / 317.0) 316909 (441.0 / 337.0) 273308	(8.57 , 1.40) (N/A , 0.02 , 0.0)	310.1 371.9	0.8624 104.6 104.6	3.9833 [4.0000]	99.6%			
PFEESA	(315.0 / 135.0) 630487 (315.0 / 83.0) 202316	(6.57 , 1.07) (N/A , 0.02 , 0.3)	721.1 496.4	0.3209 105.2 105.2	1.7210 [1.7849]	96.4%			
PFMPA	(229.0 / 85.0) 141443	(4.16 , 0.84) (N/A , 0.02 , 0.0)	843.0	N/A 0.0 0.0	1.8184 [2.0000]	90.9%			
PFMBA	(279.0 / 85.0) 439912	(5.35 , 1.08) (N/A , 0.02 , 0.0)	732.3	N/A 0.0 0.0	1.9832 [2.0000]	99.2%			
NFDHA	(295.0 / 201.0) 405018 (295.0 / 85.0) 360861	(6.00 , 0.98) (N/A , 0.02 , 0.0)	718.1 414.1	0.8910 103.7 103.7	2.0679 [2.0000]	103.4%			
13C3_PFBa_IIS	(216.0 / 172.0) 220503	(3.66 , N/A) (N/A , 0.02 , N/A)	609.8	N/A	1.0239 [1.0000]	102.4% { 96.3% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 381629	(6.12 , N/A) (N/A , 0.01 , N/A)	617.8	N/A	1.0053 [1.0000]	100.5% { 98.2% }			
13C4_PFOA_IIS	(417.0 / 372.0) 399950	(7.86 , N/A) (N/A , 0.01 , N/A)	399.7	N/A	1.1080 [1.0000]	110.8% { 106.5% }			
13C5_PFNA_IIS	(468.0 / 423.0) 274416	(8.60 , N/A) (N/A , 0.01 , N/A)	446.0	N/A	0.9332 [1.0000]	93.3% { 89.8% }			

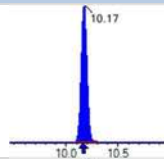
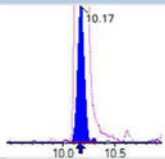
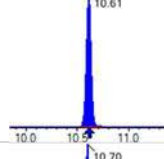
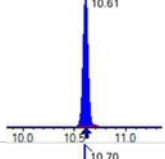
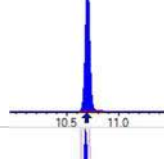
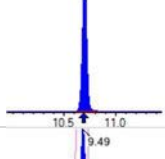
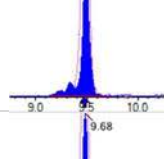
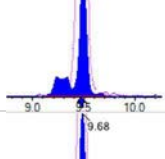
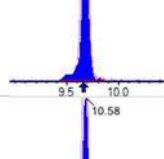
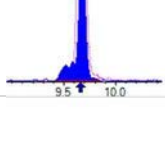
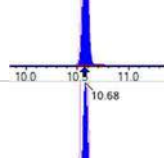
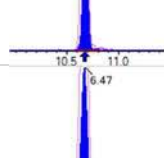
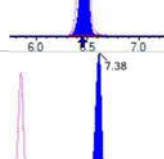
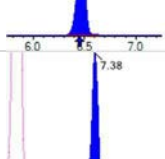
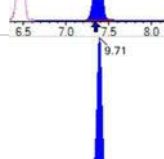
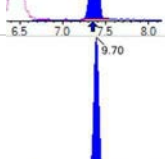
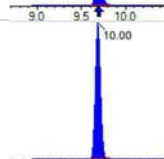
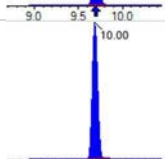
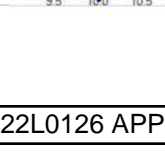
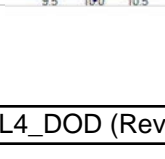
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 334123	(9.28 , N/A) (N/A , 0.01 , N/A)	328.7	N/A	0.9808 [1.0000]	98.1% { 91.6% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 601295	(7.98 , N/A) (N/A , 0.02 , N/A)	639.3	N/A	0.9937 [1.0000]	99.4% { 94.8% }			
13C4_PFOS_IIS	(503.0 / 79.9) 632346	(9.42 , N/A) (N/A , 0.01 , N/A)	514.7	N/A	0.9807 [1.0000]	98.1% { 102.0% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1751953	(3.66 , N/A) (N/A , 0.01 , N/A)	623.5	N/A	7.9138 [8.0000]	98.9% { 94.5% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1121959	(4.96 , N/A) (N/A , 0.02 , N/A)	582.2	N/A	3.8968 [4.0000]	97.4% { 94.9% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 804211	(6.12 , N/A) (N/A , 0.02 , N/A)	753.4	N/A	2.0593 [2.0000]	103.0% { 107.5% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 665369	(7.04 , N/A) (N/A , 0.01 , N/A)	503.1	N/A	1.9613 [2.0000]	98.1% { 96.9% }			
13C8_PFOA_EIS	(421.0 / 376.0) 785767	(7.86 , N/A) (N/A , 0.01 , N/A)	504.3	N/A	1.9202 [2.0000]	96.0% { 102.6% }			
13C9_PFNA_EIS	(472.0 / 427.0) 317115	(8.60 , N/A) (N/A , 0.01 , N/A)	465.1	N/A	1.1122 [1.0000]	111.2% { 103.6% }			
13C6_PFDA_EIS	(519.0 / 474.0) 425391	(9.28 , N/A) (N/A , 0.01 , N/A)	502.7	N/A	1.0540 [1.0000]	105.4% { 98.5% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 565465	(9.71 , N/A) (N/A , 0.01 , N/A)	551.6	N/A	1.1393 [1.0000]	113.9% { 100.7% }			

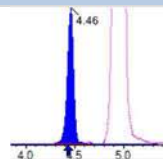
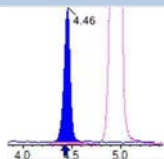
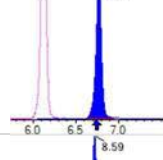
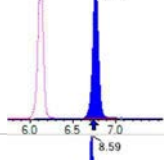
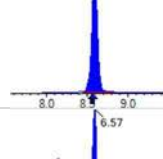
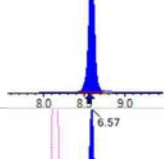
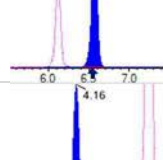
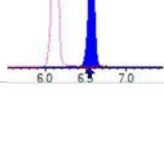
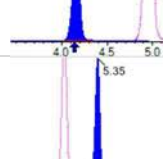
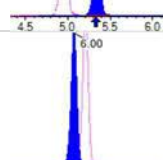
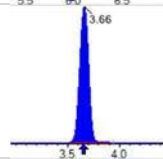
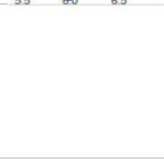
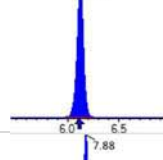
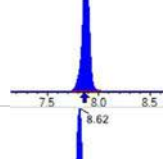
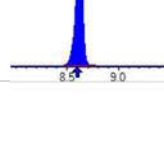
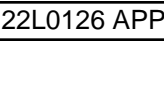
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 478887	(9.89 , N/A) (N/A , 0.01 , N/A)	515.5	N/A	0.9668 [1.0000]	96.7% { 82.8% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 328159	(10.12 , N/A) (N/A , 0.00 , N/A)	767.0	N/A	1.0456 [1.0000]	104.6% { 98.2% }			
13C3_PFBs_EIS	(302.0 / 80.0) 1944575	(6.07 , N/A) (N/A , 0.02 , N/A)	578.0	N/A	2.1368 [2.0000]	106.8% { 106.2% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1016729	(7.98 , N/A) (N/A , 0.02 , N/A)	806.7	N/A	2.0634 [2.0000]	103.2% { 102.3% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1702989	(9.42 , N/A) (N/A , 0.01 , N/A)	301.8	N/A	2.2348 [2.0000]	111.7% { 103.8% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 432685	(5.79 , N/A) (N/A , 0.01 , N/A)	620.6	N/A	4.2084 [4.0000]	105.2% { 99.8% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 620601	(7.53 , N/A) (N/A , 0.02 , N/A)	573.1	N/A	4.5620 [4.0000]	114.1% { 107.7% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 785174	(8.94 , N/A) (N/A , 0.01 , N/A)	611.8	N/A	4.5788 [4.0000]	114.5% { 123.6% }			
13C8_PFOSA_EIS	(506.0 / 78.0) 2019888	(10.17 , N/A) (N/A , 0.00 , N/A)	578.3	N/A	2.2710 [2.0000]	113.5% { 112.3% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 320384	(10.61 , N/A) (N/A , 0.00 , N/A)	1069.0	N/A	1.9048 [2.0000]	95.2% { 86.7% }			
D5_NEtFOSA_EIS	(531.0 / 169.0) 320790	(10.70 , N/A) (N/A , 0.00 , N/A)	741.8	N/A	2.0823 [2.0000]	104.1% { 94.2% }			

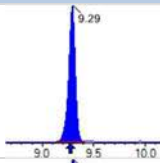
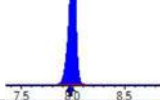
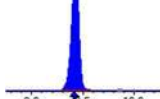
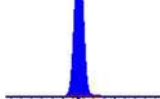




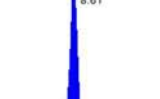
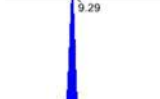

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 958692	(9.48 , N/A) (N/A , 0.01 , N/A)	259.0	N/A	3.9984 [4.0000]	100.0% { 94.1% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 844551	(9.67 , N/A) (N/A , 0.01 , N/A)	103.7	N/A	4.4302 [4.0000]	110.8% { 116.7% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 729768	(10.57 , N/A) (N/A , 0.00 , N/A)	997.2	N/A	19.8592 [20.0000]	99.3% { 90.5% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 334068	(10.67 , N/A) (N/A , 0.00 , N/A)	1160.0	N/A	19.7146 [20.0000]	98.6% { 87.5% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1786117	(6.46 , N/A) (N/A , 0.01 , N/A)	804.2	N/A	8.1757 [8.0000]	102.2% { 101.5% }			

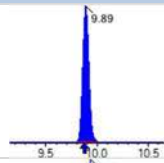
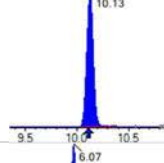
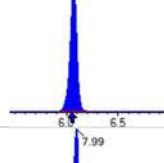
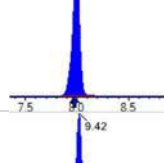
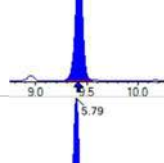
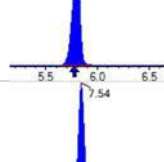
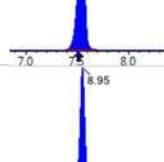
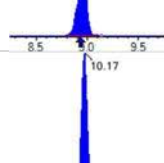
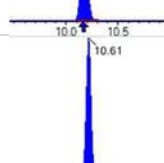
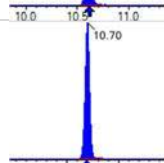
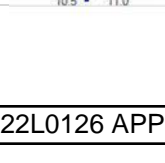
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 1746592	(3.66 , 1.00) (0.00 , N/A , 0.0)	463.1	N/A 0.0 0.0	8.1743 [8.0000]	102.2%			
PFPeA	(263.0 / 219.0) 1143154 (263.0 / 69.0) 12551	(4.96 , 1.00) (0.00 , N/A , 0.0)	689.0 156.1	0.0110 106.2 106.2	4.1190 [4.0000]	103.0%			
PFHxA	(313.0 / 269.0) 797750 (313.0 / 119.0) 70122	(6.12 , 1.00) (0.00 , N/A , -0.2)	545.0 258.3	0.0879 90.3 90.3	1.9845 [2.0000]	99.2%			
PFHpA	(363.0 / 319.0) 740963 (363.0 / 169.0) 199130	(7.06 , 1.00) (0.00 , N/A , 0.0)	459.7 416.3	0.2687 93.9 93.9	1.9815 [2.0000]	99.1%			
PFOA	(413.0 / 369.0) 775175 (413.0 / 169.0) 249779	(7.88 , 1.00) (0.00 , N/A , 0.0)	549.5 557.4	0.3222 106.1 106.1	1.8960 [2.0000]	94.8%			
PFNA	(463.0 / 419.0) 611676 (463.0 / 169.0) 124210	(8.61 , 1.00) (0.00 , N/A , 0.0)	396.0 434.7	0.2031 95.9 95.9	1.9056 [2.0000]	95.3%			
PFDA	(513.0 / 469.0) 818330 (513.0 / 169.0) 81956	(9.29 , 1.00) (0.00 , N/A , 0.0)	430.2 159.2	0.1002 108.6 108.6	2.0742 [2.0000]	103.7%			
PFUnA	(563.0 / 519.0) 1057718 (563.0 / 169.0) 110516	(9.71 , 1.00) (0.00 , N/A , 0.0)	668.2 310.7	0.1045 135.8 135.8	1.9880 [2.0000]	99.4%			
PFDoA	(613.0 / 569.0) 1141895 (613.0 / 169.0) 123268	(9.89 , 1.00) (0.00 , N/A , 0.1)	916.2 365.5	0.1080 80.1 80.1	2.4030 [2.0000]	120.1%			
PFTTrDA	(663.0 / 619.0) 1003438 (663.0 / 169.0) 191860	(10.02 , 1.01) (N/A , 0.01 , 0.1)	560.2 320.6	0.1912 87.8 87.8	2.4201 [2.0000]	121.0%			
PFTeDA	(713.0 / 669.0) 641590 (713.0 / 169.0) 154129	(10.12 , 1.00) (0.00 , N/A , -0.1)	447.4 271.7	0.2402 121.7 121.7	2.2137 [2.0000]	110.7%			

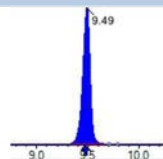
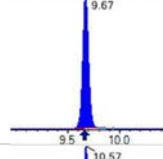
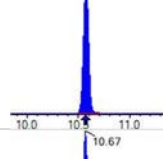
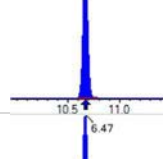
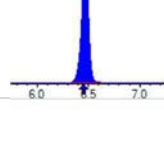
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 1067562 (299.0 / 99.0) 673423	(6.07 , 1.00) (0.00 , N/A , 0.0)	578.1 561.8	0.6308 96.0 96.0	1.7737 [1.7695]	100.2%			
PFPeS	(349.0 / 80.0) 1906817 (349.0 / 99.0) 653456	(7.12 , 0.89) (N/A , 0.02 , 0.3)	665.8 558.9	0.3427 92.4 92.4	1.8448 [1.8768]	98.3%			
PFHxS	(399.0 / 80.0) 1617363 (399.0 / 99.0) 503578	(7.99 , 1.00) (0.00 , N/A , 0.0)	629.8 704.6	0.3114 95.5 95.5	1.7766 [1.8220]	97.5%			
PFHpS	(449.0 / 80.0) 1442669 (449.0 / 99.0) 400666	(8.76 , 0.93) (N/A , 0.03 , 0.0)	576.6 492.2	0.2777 106.6 106.6	1.8711 [1.9028]	98.3%			
PFOS	(499.0 / 80.0) 1744048 (499.0 / 99.0) 352266	(9.43 , 1.00) (0.01 , N/A , 0.2)	320.8 391.1	0.2020 97.1 97.1	1.9654 [1.8550]	106.0%			
PFNS	(549.0 / 80.0) 2197640 (549.0 / 99.0) 514400	(9.75 , 1.04) (N/A , 0.01 , 0.2)	823.2 543.8	0.2341 98.3 98.3	2.1848 [1.9198]	113.8%			
PFDS	(599.0 / 80.0) 2642696 (599.0 / 99.0) 532100	(9.91 , 1.05) (N/A , 0.01 , -0.1)	1075.5 615.4	0.2013 76.5 76.5	2.1728 [1.9262]	112.8%			
PFDoS	(699.0 / 80.0) 1243841 (699.0 / 99.0) 255263	(10.11 , 1.07) (N/A , 0.01 , 0.2)	845.1 466.5	0.2052 104.7 104.7	2.1717 [1.9391]	112.0%			
4:2FTS	(327.0 / 307.0) 2707026 (327.0 / 81.0) 1711075	(5.79 , 1.00) (0.00 , N/A , 0.1)	660.4 503.9	0.6321 88.3 88.3	7.6676 [7.4762]	102.6%			
6:2FTS	(427.0 / 407.0) 1862302 (427.0 / 81.0) 1378468	(7.54 , 1.00) (0.00 , N/A , -0.1)	596.1 595.9	0.7402 100.1 100.1	8.5325 [7.5923]	112.4%			
8:2FTS	(527.0 / 507.0) 2235329 (527.0 / 81.0) 1599094	(8.95 , 1.00) (0.00 , N/A , 0.0)	485.8 465.5	0.7154 116.9 116.9	8.5224 [7.6663]	111.2%			

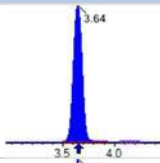
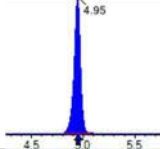
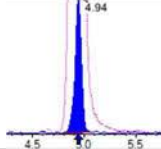
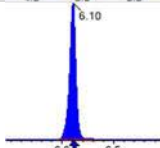
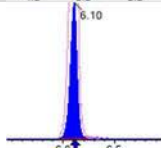
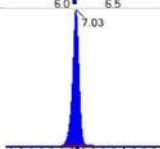
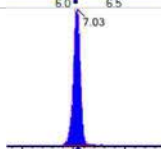
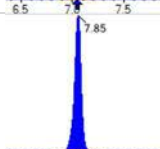
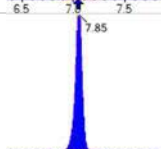
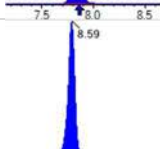
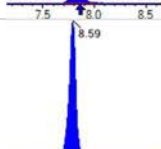
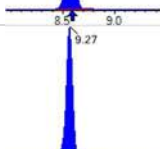
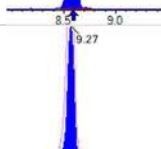
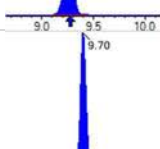
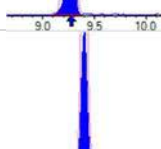
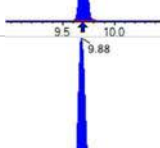
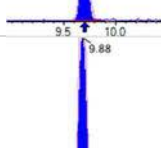
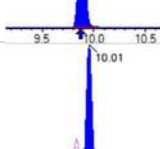
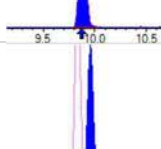
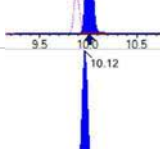
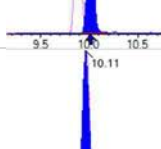
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 2528391 (498.0 / 478.0) 54462	(10.17 , 1.00) (0.00 , N/A , 0.1)	1438.2 197.4	0.0215 103.2 103.2	2.3037 [2.0000]	115.2%			
NMeFOSA	(512.0 / 219.0) 1457492 (512.0 / 169.0) 981327	(10.61 , 1.00) (0.00 , N/A , 0.1)	1299.5 1181.0	0.6733 97.3 97.3	8.7769 [8.0000]	109.7%			
NEiFOSA	(526.0 / 219.0) 1277219 (526.0 / 169.0) 1367409	(10.70 , 1.00) (0.00 , N/A , 0.0)	1532.2 1505.5	1.0706 107.9 107.9	8.1764 [8.0000]	102.2%			
NMeFOSAA	(570.0 / 419.0) 485695 (570.0 / 483.0) 242946	(9.49 , 1.00) (0.00 , N/A , -0.2)	328.4 259.5	0.5002 89.9 89.9	2.1425 [2.0000]	107.1%			
NEiFOSAA	(584.0 / 419.0) 392130 (584.0 / 526.0) 251286	(9.68 , 1.00) (0.01 , N/A , -0.1)	771.2 383.6	0.6408 108.0 108.0	1.7545 [2.0000]	87.7%			
NMeFOSE	(616.0 / 59.0) 405865	(10.58 , 1.00) (0.00 , N/A , 0.0)	925.3	N/A 0.0 0.0	8.3761 [8.0000]	104.7%			
NEiFOSE	(630.0 / 59.0) 75547	(10.68 , 1.00) (0.01 , N/A , 0.0)	662.6	N/A 0.0 0.0	8.2808 [8.0000]	103.5%			
HFPO-DA	(285.0 / 169.0) 604711 (285.0 / 185.0) 1638389	(6.47 , 1.00) (0.00 , N/A , 0.0)	689.2 578.8	2.7094 105.7 105.7	3.9228 [4.0000]	98.1%			
ADONA	(377.0 / 85.0) 2264043 (377.0 / 251.0) 284553	(7.38 , 1.14) (N/A , 0.03 , 0.1)	602.9 356.1	0.1257 102.1 102.1	3.6856 [3.7708]	97.7%			
9CI-Pf3ONS	(531.0 / 351.0) 7259867 (533.0 / 353.0) 2196634	(9.71 , 1.50) (N/A , 0.01 , 0.1)	800.4 783.4	0.3026 95.8 95.8	4.3271 [3.7330]	115.9%			
11CI-PF3OUDS	(631.0 / 451.0) 3998329 (633.0 / 453.0) 1172098	(10.00 , 1.55) (N/A , 0.01 , -0.1)	1056.6 896.3	0.2931 94.6 94.6	4.2107 [3.7728]	111.6%			

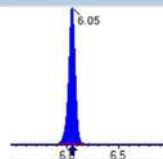
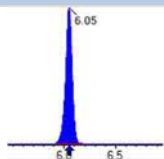
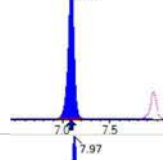
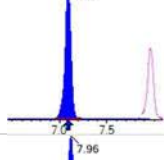
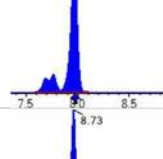
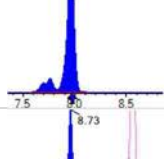
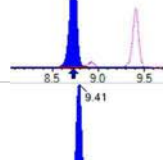
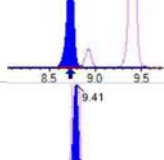
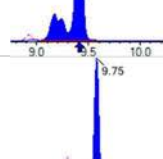
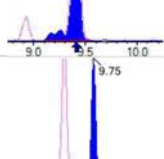
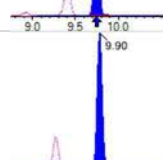
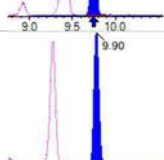
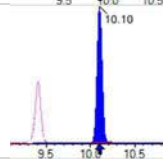
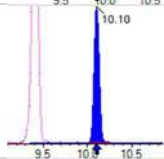
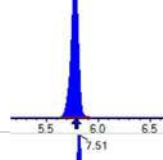
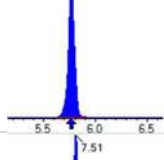
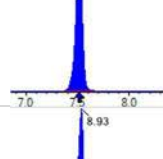
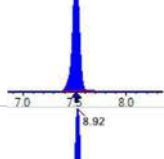
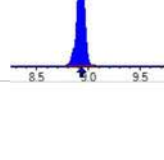
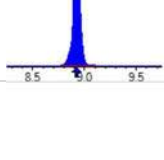
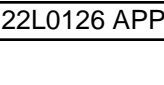
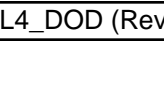
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (Δ RT-[min], Δ RT- CV[min], Δ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 73570 (241.0 / 117.0) 105248	(4.46 , 0.90) (N/A , 0.02 , 0.2)	567.9 264.9	1.4306 108.8 108.8	7.7124 [8.0000]	96.4%			
5:3FTCA	(341.0 / 236.7) 515125 (341.0 / 217.0) 803061	(6.77 , 1.11) (N/A , 0.03 , 0.2)	471.5 414.3	1.5590 86.9 86.9	8.3720 [8.0000]	104.6%			
7:3FTCA	(441.0 / 317.0) 645121 (441.0 / 337.0) 555757	(8.59 , 1.40) (N/A , 0.03 , 0.0)	377.3 448.9	0.8615 104.5 104.5	8.0487 [8.0000]	100.6%			
PFEESA	(315.0 / 135.0) 1318002 (315.0 / 83.0) 401393	(6.57 , 1.07) (N/A , 0.02 , 0.0)	732.0 563.7	0.3045 99.9 99.9	3.5709 [3.5698]	100.0%			
PFMPA	(229.0 / 85.0) 314218	(4.16 , 0.84) (N/A , 0.02 , 0.0)	784.7	N/A 0.0 0.0	3.8767 [4.0000]	96.9%			
PFMBA	(279.0 / 85.0) 916020	(5.35 , 1.08) (N/A , 0.02 , 0.0)	712.6	N/A 0.0 0.0	3.9630 [4.0000]	99.1%			
NFDHA	(295.0 / 201.0) 736503 (295.0 / 85.0) 687294	(6.00 , 0.98) (N/A , 0.02 , 0.0)	623.8 669.0	0.9332 108.6 108.6	3.7326 [4.0000]	93.3%			
13C3_PFBa_IIS	(216.0 / 172.0) 227206	(3.66 , N/A) (N/A , 0.01 , N/A)	511.3	N/A	1.0550 [1.0000]	105.5% { 99.2% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 361923	(6.12 , N/A) (N/A , 0.02 , N/A)	538.9	N/A	0.9534 [1.0000]	95.3% { 93.1% }			
13C4_PFOA_IIS	(417.0 / 372.0) 369788	(7.88 , N/A) (N/A , 0.03 , N/A)	566.7	N/A	1.0244 [1.0000]	102.4% { 98.5% }			
13C5_PFNA_IIS	(468.0 / 423.0) 299965	(8.62 , N/A) (N/A , 0.03 , N/A)	410.7	N/A	1.0201 [1.0000]	102.0% { 98.1% }			

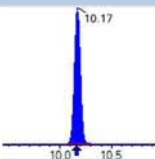
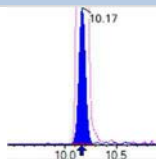
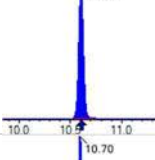
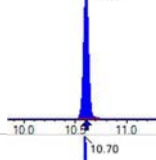
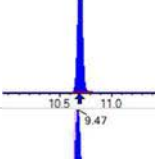
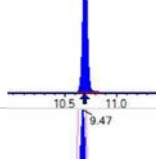
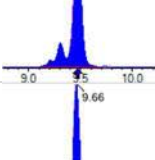
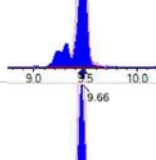
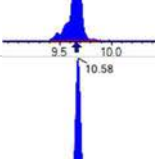
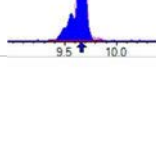
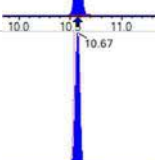
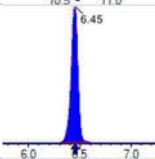
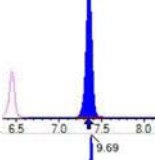
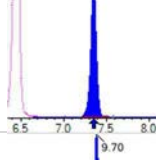
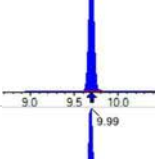
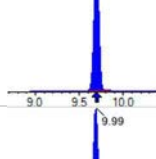
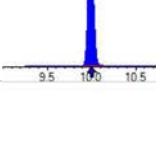
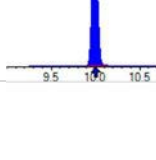
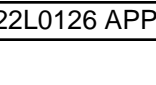
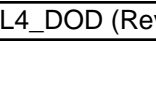
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 371225	(9.29 , N/A) (N/A , 0.02 , N/A)	354.1	N/A	1.0898 [1.0000]	109.0% { 101.8% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 622794	(8.00 , N/A) (N/A , 0.03 , N/A)	679.5	N/A	1.0293 [1.0000]	102.9% { 98.2% }			
13C4_PFOS_IIS	(503.0 / 79.9) 616990	(9.43 , N/A) (N/A , 0.02 , N/A)	382.7	N/A	0.9569 [1.0000]	95.7% { 99.5% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1829496	(3.66 , N/A) (N/A , 0.01 , N/A)	650.5	N/A	8.0203 [8.0000]	100.3% { 98.7% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1169132	(4.96 , N/A) (N/A , 0.02 , N/A)	726.4	N/A	4.2817 [4.0000]	107.0% { 98.9% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 810208	(6.12 , N/A) (N/A , 0.02 , N/A)	601.7	N/A	2.1876 [2.0000]	109.4% { 108.3% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 713694	(7.06 , N/A) (N/A , 0.02 , N/A)	408.7	N/A	2.2183 [2.0000]	110.9% { 103.9% }			
13C8_PFOA_EIS	(421.0 / 376.0) 767588	(7.88 , N/A) (N/A , 0.03 , N/A)	551.6	N/A	2.0288 [2.0000]	101.4% { 100.2% }			
13C9_PFNA_EIS	(472.0 / 427.0) 332575	(8.61 , N/A) (N/A , 0.03 , N/A)	468.5	N/A	1.0671 [1.0000]	106.7% { 108.6% }			
13C6_PFDA_EIS	(519.0 / 474.0) 397853	(9.29 , N/A) (N/A , 0.02 , N/A)	343.2	N/A	0.8873 [1.0000]	88.7% { 92.2% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 582995	(9.71 , N/A) (N/A , 0.01 , N/A)	583.2	N/A	1.0572 [1.0000]	105.7% { 103.8% }			

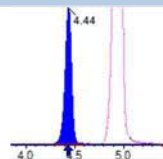
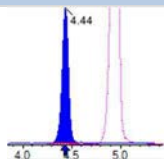
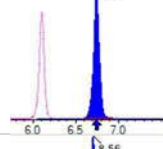
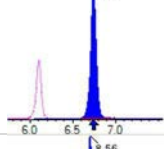
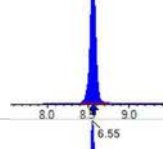
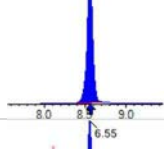
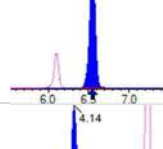
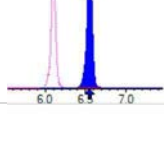
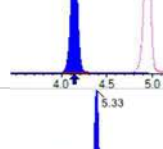
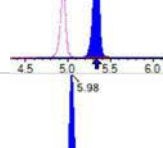
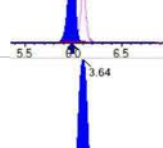
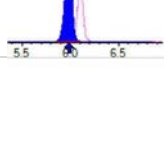
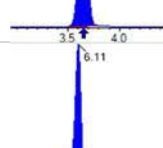
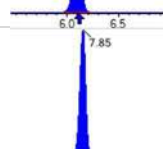
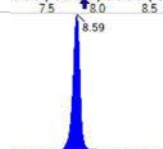
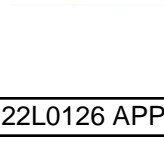
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 495845	(9.89 , N/A) (N/A , 0.01 , N/A)	546.3	N/A	0.9010 [1.0000]	90.1% { 85.8% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 286518	(10.13 , N/A) (N/A , 0.01 , N/A)	520.4	N/A	0.8217 [1.0000]	82.2% { 85.7% }			
13C3_PFBs_EIS	(302.0 / 80.0) 1886917	(6.07 , N/A) (N/A , 0.02 , N/A)	619.1	N/A	2.0019 [2.0000]	100.1% { 103.1% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1051181	(7.99 , N/A) (N/A , 0.03 , N/A)	650.7	N/A	2.0596 [2.0000]	103.0% { 105.7% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1524113	(9.42 , N/A) (N/A , 0.02 , N/A)	272.1	N/A	2.0498 [2.0000]	102.5% { 92.9% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 415297	(5.79 , N/A) (N/A , 0.02 , N/A)	541.1	N/A	3.8999 [4.0000]	97.5% { 95.8% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 543773	(7.54 , N/A) (N/A , 0.03 , N/A)	645.1	N/A	3.8593 [4.0000]	96.5% { 94.4% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 672589	(8.95 , N/A) (N/A , 0.03 , N/A)	450.8	N/A	3.7869 [4.0000]	94.7% { 105.9% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 1892821	(10.17 , N/A) (N/A , 0.01 , N/A)	783.7	N/A	2.1811 [2.0000]	109.1% { 105.3% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 341896	(10.61 , N/A) (N/A , 0.00 , N/A)	927.6	N/A	2.0833 [2.0000]	104.2% { 92.6% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 314966	(10.70 , N/A) (N/A , 0.00 , N/A)	774.4	N/A	2.0954 [2.0000]	104.8% { 92.5% }			

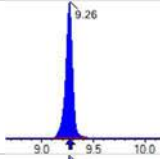
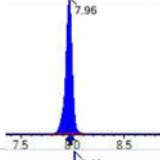
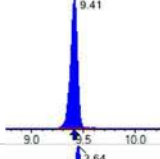
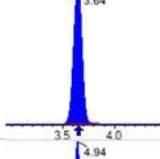
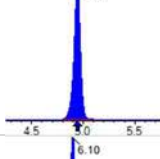
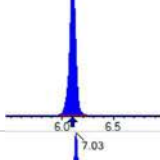
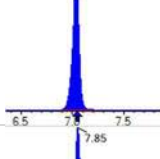
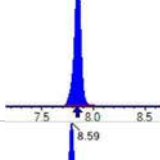
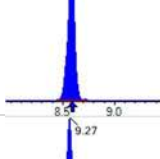
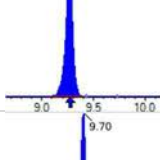
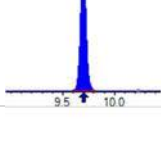
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 999275	(9.49 , N/A) (N/A , 0.02 , N/A)	362.3	N/A	4.2714 [4.0000]	106.8% { 98.1% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 906884	(9.67 , N/A) (N/A , 0.01 , N/A)	124.4	N/A	4.8755 [4.0000]	121.9% { 125.3% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 793746	(10.57 , N/A) (N/A , 0.01 , N/A)	842.5	N/A	22.1378 [20.0000]	110.7% { 98.4% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 339156	(10.67 , N/A) (N/A , 0.00 , N/A)	881.8	N/A	20.5131 [20.0000]	102.6% { 88.8% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1776569	(6.47 , N/A) (N/A , 0.02 , N/A)	704.8	N/A	8.5748 [8.0000]	107.2% { 101.0% }			

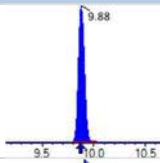
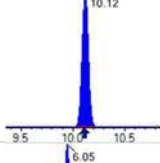
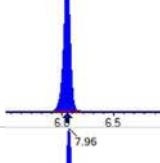
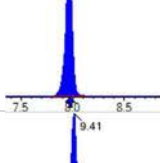
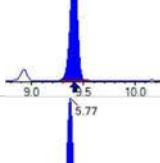
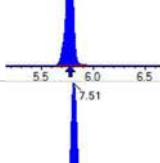
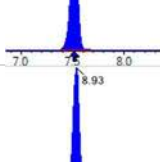
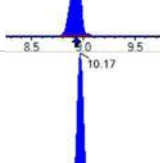
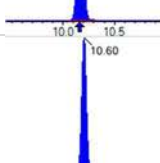
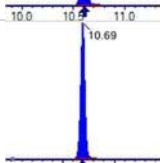

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 4531744	(3.64 , 1.00) (0.00 , N/A , 0.0)	507.6	N/A 0.0 0.0	20.9395 [20.0000]	104.7%			
PFPeA	(263.0 / 219.0) 3002672 (263.0 / 69.0) 31032	(4.95 , 1.00) (0.00 , N/A , 0.0)	565.7 266.4	0.0103 100.0 100.0	10.6951 [10.0000]	107.0%			
PFHxA	(313.0 / 269.0) 1843854 (313.0 / 119.0) 179455	(6.10 , 1.00) (0.00 , N/A , 0.0)	525.9 455.3	0.0973 100.0 100.0	4.9671 [5.0000]	99.3%			
PFHpA	(363.0 / 319.0) 1792202 (363.0 / 169.0) 512753	(7.03 , 1.00) (0.00 , N/A , 0.0)	520.9 532.4	0.2861 100.0 100.0	4.9808 [5.0000]	99.6%			
PFOA	(413.0 / 369.0) 2079803 (413.0 / 169.0) 631506	(7.85 , 1.00) (0.00 , N/A , 0.1)	580.6 575.6	0.3036 100.0 100.0	5.0965 [5.0000]	101.9%			
PFNA	(463.0 / 419.0) 1540923 (463.0 / 169.0) 326254	(8.59 , 1.00) (0.00 , N/A , 0.0)	443.6 372.7	0.2117 100.0 100.0	5.2146 [5.0000]	104.3%			
PFDA	(513.0 / 469.0) 2247843 (513.0 / 169.0) 207235	(9.27 , 1.00) (0.00 , N/A , -0.2)	444.4 335.6	0.0922 100.0 100.0	5.2506 [5.0000]	105.0%			
PFUnA	(563.0 / 519.0) 2673029 (563.0 / 169.0) 205590	(9.70 , 1.00) (0.00 , N/A , 0.0)	649.3 287.3	0.0769 100.0 100.0	5.2172 [5.0000]	104.3%			
PFDaA	(613.0 / 569.0) 2446524 (613.0 / 169.0) 329560	(9.88 , 1.00) (0.00 , N/A , 0.0)	963.7 471.5	0.1347 100.0 100.0	4.4164 [5.0000]	88.3%			
PFTTrDA	(663.0 / 619.0) 1954376 (663.0 / 169.0) 425761	(10.01 , 1.01) (N/A , 0.00 , -0.2)	892.5 525.9	0.2179 100.0 100.0	4.0433 [5.0000]	80.9%			
PFTeDA	(713.0 / 669.0) 1618635 (713.0 / 169.0) 319417	(10.12 , 1.00) (0.00 , N/A , 0.1)	805.5 387.1	0.1973 100.0 100.0	4.7868 [5.0000]	95.7%			

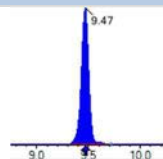
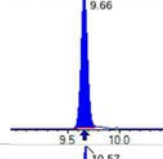
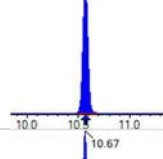
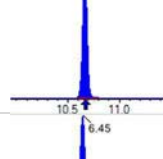
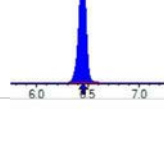
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (Δ RT-[min], Δ RT- CV[min], Δ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 2672946 (299.0 / 99.0) 1756668	(6.05 , 1.00) (0.00 , N/A , 0.0)	610.8 546.4	0.6572 100.0 100.0	4.5776 [4.4237]	103.5%			
PFPeS	(349.0 / 80.0) 4894758 (349.0 / 99.0) 1814428	(7.09 , 0.89) (N/A , 0.00 , 0.1)	689.3 676.7	0.3707 100.0 100.0	5.0079 [4.6919]	106.7%			
PFHxS	(399.0 / 80.0) 3959208 (399.0 / 99.0) 1290826	(7.97 , 1.00) (0.00 , N/A , 0.2)	686.7 771.7	0.3260 100.0 100.0	4.5991 [4.5549]	101.0%			
PFHpS	(449.0 / 80.0) 3784669 (449.0 / 99.0) 986329	(8.73 , 0.93) (N/A , 0.00 , 0.0)	587.2 615.2	0.2606 100.0 100.0	4.5590 [4.7570]	95.8%			
PFOS	(499.0 / 80.0) 4366238 (499.0 / 99.0) 908271	(9.41 , 1.00) (0.00 , N/A , 0.0)	363.0 636.4	0.2080 100.0 100.0	4.5699 [4.6375]	98.5%			
PFNS	(549.0 / 80.0) 4993251 (549.0 / 99.0) 1188617	(9.75 , 1.04) (N/A , 0.00 , 0.1)	784.6 768.3	0.2380 100.0 100.0	4.6104 [4.7994]	96.1%			
PFDS	(599.0 / 80.0) 6073759 (599.0 / 99.0) 1597881	(9.90 , 1.05) (N/A , 0.00 , 0.1)	1011.1 645.9	0.2631 100.0 100.0	4.6381 [4.8155]	96.3%			
PFDoS	(699.0 / 80.0) 3175471 (699.0 / 99.0) 622558	(10.10 , 1.07) (N/A , 0.00 , 0.0)	1076.8 419.6	0.1961 100.0 100.0	5.1493 [4.8478]	106.2%			
4:2FTS	(327.0 / 307.0) 6344892 (327.0 / 81.0) 4541729	(5.78 , 1.00) (0.00 , N/A , 0.4)	576.3 609.4	0.7158 100.0 100.0	17.2119 [18.6906]	92.1%			
6:2FTS	(427.0 / 407.0) 4427654 (427.0 / 81.0) 3272744	(7.51 , 1.00) (0.00 , N/A , 0.1)	646.0 723.9	0.7392 100.0 100.0	19.1499 [18.9808]	100.9%			
8:2FTS	(527.0 / 507.0) 5847930 (527.0 / 81.0) 3577838	(8.93 , 1.00) (0.00 , N/A , 0.2)	591.9 517.5	0.6118 100.0 100.0	23.6031 [19.1658]	123.2%			

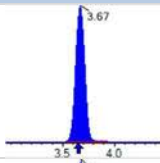
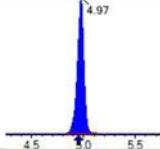
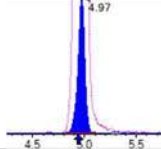
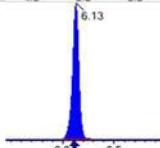
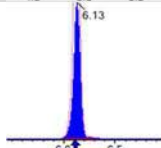
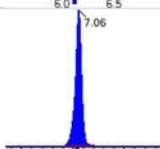
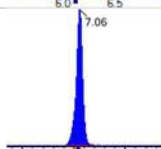
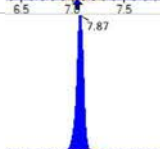
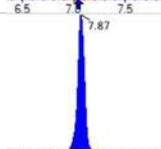
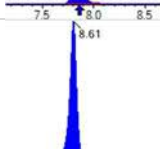
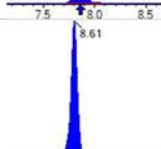
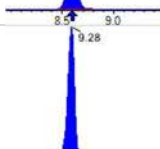
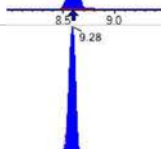
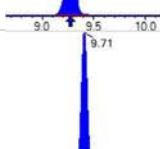
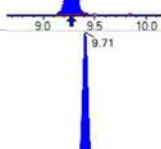
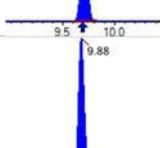
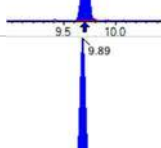
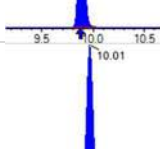
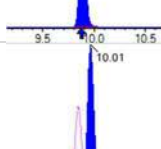
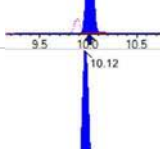
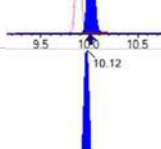
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 5641831 (498.0 / 478.0) 117757	(10.17 , 1.00) (0.00 , N/A , 0.1)	984.4 206.9	0.0209 100.0 100.0	5.4106 [5.0000]	108.2%			
NMeFOSA	(512.0 / 219.0) 3685027 (512.0 / 169.0) 2549992	(10.60 , 1.00) (0.00 , N/A , 0.0)	862.9 929.9	0.6920 100.0 100.0	20.5398 [20.0000]	102.7%			
NEIFOSA	(526.0 / 219.0) 3653503 (526.0 / 169.0) 3626173	(10.70 , 1.00) (0.00 , N/A , 0.0)	1144.2 1114.9	0.9925 100.0 100.0	21.6307 [20.0000]	108.2%			
NMeFOSAA	(570.0 / 419.0) 1094840 (570.0 / 483.0) 609334	(9.47 , 1.00) (0.01 , N/A , 0.0)	395.6 381.9	0.5566 100.0 100.0	4.7390 [5.0000]	94.8%			
NEIFOSAA	(584.0 / 419.0) 886142 (584.0 / 526.0) 525687	(9.66 , 1.00) (0.00 , N/A , 0.0)	767.0 578.1	0.5932 100.0 100.0	4.9678 [5.0000]	99.4%			
NMeFOSE	(616.0 / 59.0) 1016529	(10.58 , 1.00) (0.01 , N/A , 0.0)	1114.5	N/A 0.0 0.0	20.6406 [20.0000]	103.2%			
NEtFOSE	(630.0 / 59.0) 206836	(10.67 , 1.00) (0.01 , N/A , 0.0)	1157.7	N/A 0.0 0.0	19.9519 [20.0000]	99.8%			
HFPO-DA	(285.0 / 169.0) 1571956 (285.0 / 185.0) 4029846	(6.45 , 1.00) (0.00 , N/A , 0.1)	780.3 596.3	2.5636 100.0 100.0	10.2994 [10.0000]	103.0%			
ADONA	(377.0 / 85.0) 5652866 (377.0 / 251.0) 695542	(7.35 , 1.14) (N/A , 0.00 , 0.0)	792.4 594.0	0.1230 100.0 100.0	9.2942 [9.4270]	98.6%			
9CI-Pf3ONS	(531.0 / 351.0) 16340384 (533.0 / 353.0) 5162849	(9.69 , 1.50) (N/A , 0.00 , -0.1)	978.3 747.3	0.3160 100.0 100.0	9.8368 [9.3325]	105.4%			
11CI-PF3OUDS	(631.0 / 451.0) 9384865 (633.0 / 453.0) 2907067	(9.99 , 1.55) (N/A , 0.00 , 0.0)	1055.2 675.6	0.3098 100.0 100.0	9.9822 [9.4321]	105.8%			

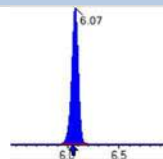
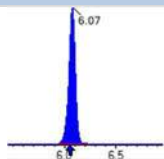
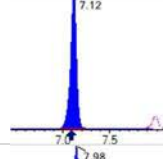
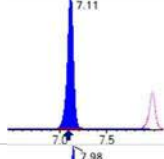
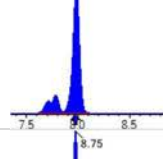
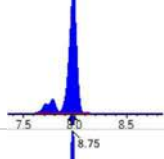
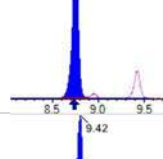
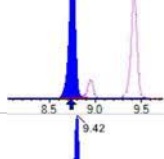
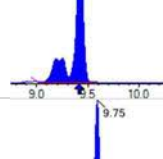
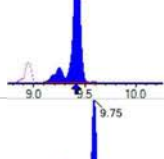
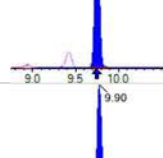
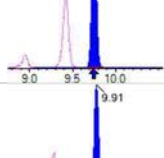
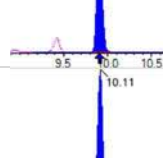
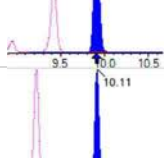
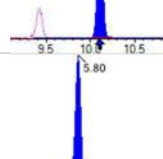
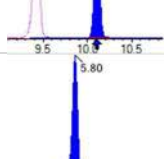
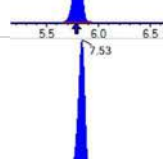
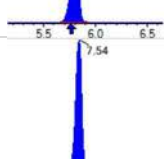
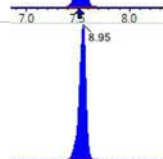
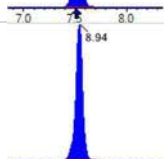
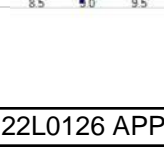
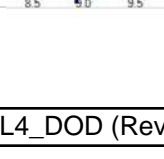
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 198531 (241.0 / 117.0) 261133	(4.44 , 0.90) (N/A , 0.00 , 0.1)	781.5 382.9	1.3153 100.0 100.0	20.5736 [20.0000]	102.9%			
5:3FTCA	(341.0 / 236.7) 1044482 (341.0 / 217.0) 1874457	(6.74 , 1.10) (N/A , 0.00 , 0.0)	468.7 476.5	1.7946 100.0 100.0	18.3832 [20.0000]	91.9%			
7:3FTCA	(441.0 / 317.0) 1599354 (441.0 / 337.0) 1318714	(8.56 , 1.40) (N/A , 0.00 , 0.0)	456.5 386.0	0.8245 100.0 100.0	21.6090 [20.0000]	108.0%			
PFEESA	(315.0 / 135.0) 3278846 (315.0 / 83.0) 999968	(6.55 , 1.07) (N/A , 0.00 , -0.2)	719.1 667.6	0.3050 100.0 100.0	9.6204 [8.9246]	107.8%			
PFMPA	(229.0 / 85.0) 866854	(4.14 , 0.84) (N/A , 0.00 , 0.0)	914.7	N/A 0.0 0.0	10.5723 [10.0000]	105.7%			
PFMBA	(279.0 / 85.0) 2310325	(5.33 , 1.08) (N/A , 0.00 , 0.0)	689.7	N/A 0.0 0.0	9.8808 [10.0000]	98.8%			
NFDHA	(295.0 / 201.0) 1939780 (295.0 / 85.0) 1666269	(5.98 , 0.98) (N/A , 0.00 , 0.1)	808.6 626.6	0.8590 100.0 100.0	10.6462 [10.0000]	106.5%			
13C3_PFBA_IIS	(216.0 / 172.0) 228947	(3.64 , N/A) (N/A , 0.00 , N/A)	672.1	N/A	1.0631 [1.0000]	106.3% { 100.0% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 388724	(6.11 , N/A) (N/A , 0.00 , N/A)	562.9	N/A	1.0240 [1.0000]	102.4% { 100.0% }			
13C4_PFOA_IIS	(417.0 / 372.0) 375536	(7.85 , N/A) (N/A , 0.00 , N/A)	414.8	N/A	1.0404 [1.0000]	104.0% { 100.0% }			
13C5_PFNA_IIS	(468.0 / 423.0) 305725	(8.59 , N/A) (N/A , 0.00 , N/A)	437.3	N/A	1.0397 [1.0000]	104.0% { 100.0% }			

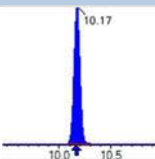
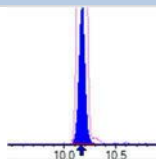
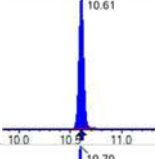
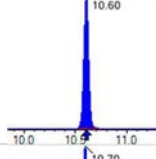
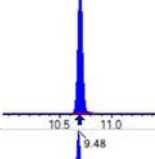
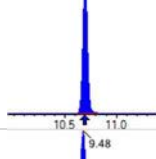
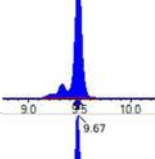
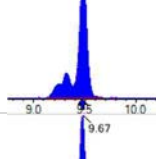
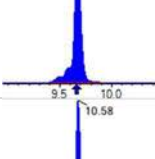
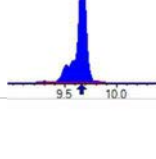
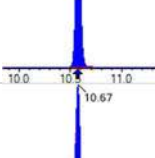
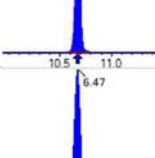
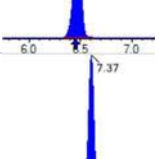
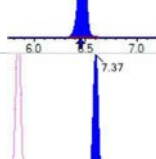
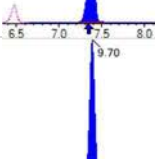
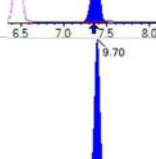
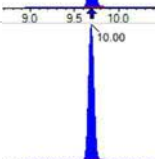
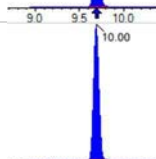
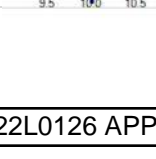
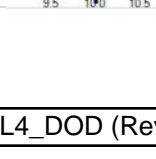
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 364678	(9.26 , N/A) (N/A , 0.00 , N/A)	367.1	N/A	1.0705 [1.0000]	107.1% { 100.0% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 634057	(7.96 , N/A) (N/A , 0.00 , N/A)	772.8	N/A	1.0479 [1.0000]	104.8% { 100.0% }			
13C4_PFOS_IIS	(503.0 / 79.9) 619970	(9.41 , N/A) (N/A , 0.00 , N/A)	447.9	N/A	0.9615 [1.0000]	96.1% { 100.0% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1853066	(3.64 , N/A) (N/A , 0.00 , N/A)	629.8	N/A	8.0618 [8.0000]	100.8% { 100.0% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1182685	(4.94 , N/A) (N/A , 0.00 , N/A)	581.8	N/A	4.0328 [4.0000]	100.8% { 100.0% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 748155	(6.10 , N/A) (N/A , 0.00 , N/A)	644.3	N/A	1.8808 [2.0000]	94.0% { 100.0% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 686768	(7.03 , N/A) (N/A , 0.00 , N/A)	488.3	N/A	1.9874 [2.0000]	99.4% { 100.0% }			
13C8_PFOA_EIS	(421.0 / 376.0) 766153	(7.85 , N/A) (N/A , 0.00 , N/A)	627.1	N/A	1.9940 [2.0000]	99.7% { 100.0% }			
13C9_PFNA_EIS	(472.0 / 427.0) 306174	(8.59 , N/A) (N/A , 0.00 , N/A)	372.0	N/A	0.9638 [1.0000]	96.4% { 100.0% }			
13C6_PFDA_EIS	(519.0 / 474.0) 431711	(9.27 , N/A) (N/A , 0.00 , N/A)	413.8	N/A	0.9801 [1.0000]	98.0% { 100.0% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 561415	(9.70 , N/A) (N/A , 0.00 , N/A)	331.4	N/A	1.0363 [1.0000]	103.6% { 100.0% }			

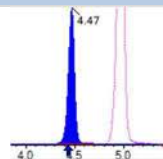
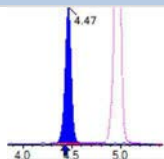
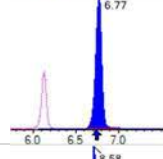
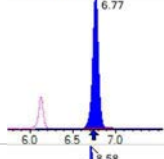
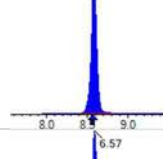
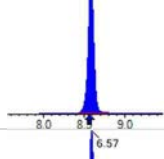
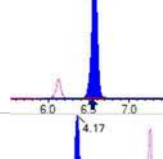
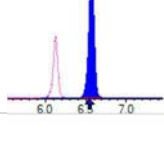
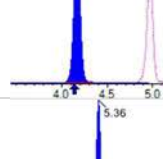
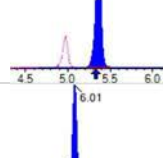
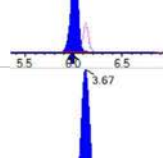
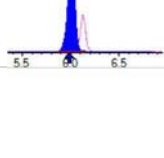
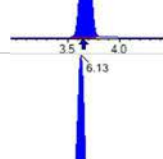
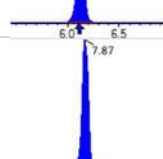
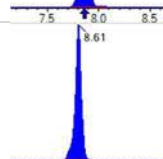

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 578032	(9.88 , N/A) (N/A , 0.00 , N/A)	586.4	N/A	1.0692 [1.0000]	106.9% { 100.0% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 334276	(10.12 , N/A) (N/A , 0.00 , N/A)	669.0	N/A	0.9759 [1.0000]	97.6% { 100.0% }			
13C3_PFBs_EIS	(302.0 / 80.0) 1830583	(6.05 , N/A) (N/A , 0.00 , N/A)	650.3	N/A	1.9076 [2.0000]	95.4% { 100.0% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 994031	(7.96 , N/A) (N/A , 0.00 , N/A)	752.7	N/A	1.9131 [2.0000]	95.7% { 100.0% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1641013	(9.41 , N/A) (N/A , 0.00 , N/A)	203.3	N/A	2.1964 [2.0000]	109.8% { 100.0% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 433632	(5.77 , N/A) (N/A , 0.00 , N/A)	581.0	N/A	3.9997 [4.0000]	100.0% { 100.0% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 576038	(7.51 , N/A) (N/A , 0.00 , N/A)	706.5	N/A	4.0156 [4.0000]	100.4% { 100.0% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 635337	(8.93 , N/A) (N/A , 0.00 , N/A)	503.1	N/A	3.5136 [4.0000]	87.8% { 100.0% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 1798279	(10.17 , N/A) (N/A , 0.00 , N/A)	942.9	N/A	2.0622 [2.0000]	103.1% { 100.0% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 369382	(10.60 , N/A) (N/A , 0.00 , N/A)	697.5	N/A	2.2400 [2.0000]	112.0% { 100.0% }			
D5_NEtFOSA_EIS	(531.0 / 169.0) 340567	(10.69 , N/A) (N/A , 0.00 , N/A)	878.1	N/A	2.2548 [2.0000]	112.7% { 100.0% }			

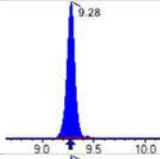
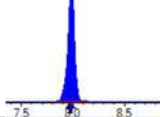
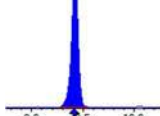
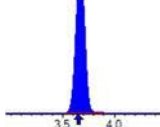
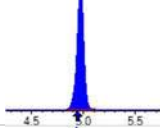
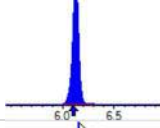
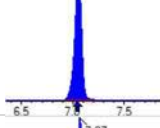
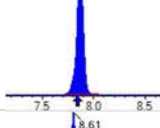
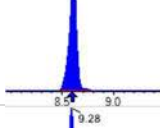
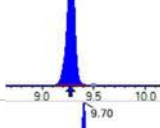
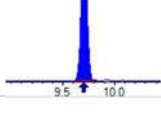
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 1018353	(9.47, N/A) (N/A, 0.00, N/A)	413.5	N/A	4.3321 [4.0000]	108.3% { 100.0% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 723782	(9.66, N/A) (N/A, 0.00, N/A)	128.8	N/A	3.8725 [4.0000]	96.8% { 100.0% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 806754	(10.57, N/A) (N/A, 0.00, N/A)	764.6	N/A	22.3925 [20.0000]	112.0% { 100.0% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 381994	(10.67, N/A) (N/A, 0.00, N/A)	1289.6	N/A	22.9930 [20.0000]	115.0% { 100.0% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1758964	(6.45, N/A) (N/A, 0.00, N/A)	789.5	N/A	7.9045 [8.0000]	98.8% { 100.0% }			

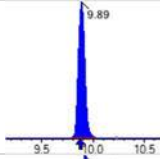
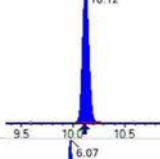
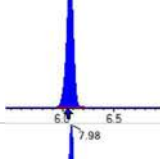
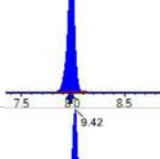
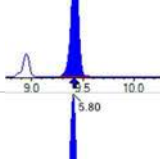
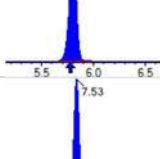
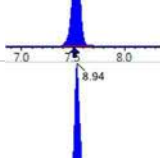
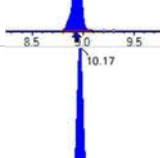
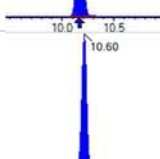
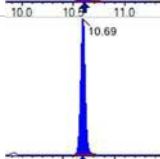

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 7772583	(3.67 , 1.00) (0.00 , N/A , 0.0)	539.7	N/A 0.0 0.0	42.0284 [40.0000]	105.1%			
PFPeA	(263.0 / 219.0) 5651080 (263.0 / 69.0) 62233	(4.97 , 1.00) (0.00 , N/A , 0.1)	647.3 405.2	0.0110 106.6 106.6	20.5875 [20.0000]	102.9%			
PFHxA	(313.0 / 269.0) 3825516 (313.0 / 119.0) 359501	(6.13 , 1.00) (0.00 , N/A , -0.1)	607.3 500.9	0.0940 96.6 96.6	9.8177 [10.0000]	98.2%			
PFHpA	(363.0 / 319.0) 3529017 (363.0 / 169.0) 968158	(7.06 , 1.00) (0.00 , N/A , 0.0)	548.9 648.7	0.2743 95.9 95.9	10.8348 [10.0000]	108.3%			
PFOA	(413.0 / 369.0) 3581523 (413.0 / 169.0) 1076980	(7.87 , 1.00) (0.00 , N/A , 0.1)	547.4 634.9	0.3007 99.0 99.0	9.6850 [10.0000]	96.8%			
PFNA	(463.0 / 419.0) 2957588 (463.0 / 169.0) 644107	(8.61 , 1.00) (0.00 , N/A , 0.1)	425.4 603.3	0.2178 102.9 102.9	10.0993 [10.0000]	101.0%			
PFDA	(513.0 / 469.0) 4258828 (513.0 / 169.0) 403727	(9.28 , 1.00) (0.00 , N/A , 0.0)	472.9 296.1	0.0948 102.8 102.8	10.9198 [10.0000]	109.2%			
PFUnA	(563.0 / 519.0) 4674286 (563.0 / 169.0) 517395	(9.71 , 1.00) (0.00 , N/A , 0.0)	706.9 437.2	0.1107 143.9 143.9	11.2428 [10.0000]	112.4%			
PFDaA	(613.0 / 569.0) 5709604 (613.0 / 169.0) 642220	(9.88 , 1.00) (0.00 , N/A , -0.3)	720.4 722.5	0.1125 83.5 83.5	12.2529 [10.0000]	122.5%			
PFTrDA	(663.0 / 619.0) 4361328 (663.0 / 169.0) 858415	(10.01 , 1.01) (N/A , 0.01 , 0.1)	1008.2 566.2	0.1968 90.3 90.3	10.7266 [10.0000]	107.3%			
PFTeDA	(713.0 / 669.0) 3337271 (713.0 / 169.0) 603490	(10.12 , 1.00) (0.00 , N/A , 0.0)	886.3 480.1	0.1808 91.6 91.6	10.5300 [10.0000]	105.3%			

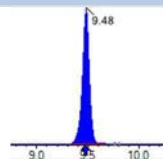
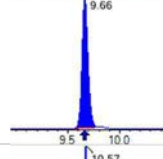
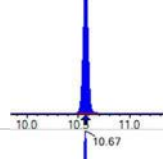
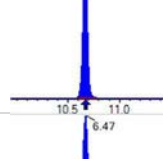
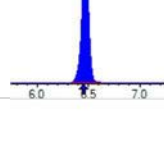
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (Δ RT-[min], Δ RT- CV[min], Δ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 5459762 (299.0 / 99.0) 3323569	(6.07 , 1.00) (0.00 , N/A , -0.1)	594.6 528.5	0.6087 92.6 92.6	9.5253 [8.8473]	107.7%			
PFPeS	(349.0 / 80.0) 9308750 (349.0 / 99.0) 3350153	(7.12 , 0.89) (N/A , 0.02 , 0.1)	699.6 675.9	0.3599 97.1 97.1	10.2862 [9.3838]	109.6%			
PFHxS	(399.0 / 80.0) 7745896 (399.0 / 99.0) 2382567	(7.98 , 1.00) (0.00 , N/A , 0.1)	693.1 798.7	0.3076 94.3 94.3	9.7180 [9.1098]	106.7%			
PFHpS	(449.0 / 80.0) 7488992 (449.0 / 99.0) 1981717	(8.75 , 0.93) (N/A , 0.02 , 0.0)	634.3 589.4	0.2646 101.5 101.5	9.9485 [9.5141]	104.6%			
PFOS	(499.0 / 80.0) 8562239 (499.0 / 99.0) 1888731	(9.42 , 1.00) (0.00 , N/A , 0.0)	338.8 830.7	0.2206 106.0 106.0	9.8827 [9.2749]	106.6%			
PFNS	(549.0 / 80.0) 10435990 (549.0 / 99.0) 2405738	(9.75 , 1.03) (N/A , 0.00 , 0.0)	800.6 903.1	0.2305 96.8 96.8	10.6263 [9.5989]	110.7%			
PFDS	(599.0 / 80.0) 12279035 (599.0 / 99.0) 2702366	(9.90 , 1.05) (N/A , 0.00 , -0.1)	1330.2 758.5	0.2201 83.7 83.7	10.3405 [9.6311]	107.4%			
PFDoS	(699.0 / 80.0) 5600165 (699.0 / 99.0) 1242155	(10.11 , 1.07) (N/A , 0.01 , 0.2)	1314.2 801.9	0.2218 113.1 113.1	10.0146 [9.6956]	103.3%			
4:2FTS	(327.0 / 307.0) 13536278 (327.0 / 81.0) 8309827	(5.80 , 1.00) (0.00 , N/A , 0.0)	719.9 739.3	0.6139 85.8 85.8	38.4468 [37.3811]	102.9%			
6:2FTS	(427.0 / 407.0) 8251578 (427.0 / 81.0) 6774164	(7.53 , 1.00) (0.00 , N/A , -0.1)	677.3 718.9	0.8210 111.1 111.1	41.5121 [37.9617]	109.4%			
8:2FTS	(527.0 / 507.0) 10049426 (527.0 / 81.0) 6666543	(8.95 , 1.00) (0.01 , N/A , 0.3)	445.9 502.6	0.6634 108.4 108.4	44.5543 [38.3315]	116.2%			

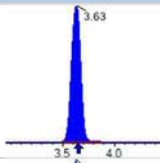
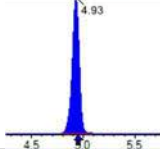
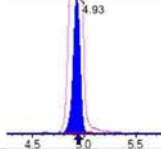
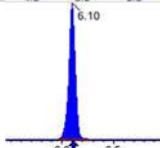
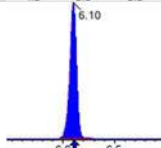
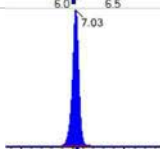
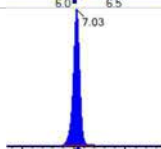
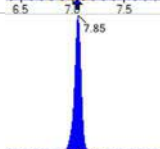
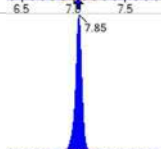
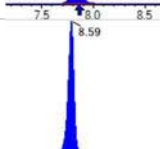
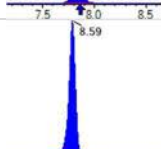
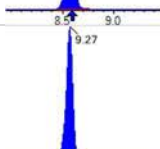
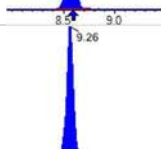
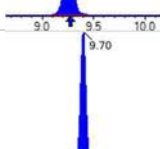
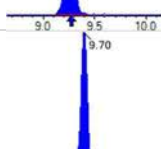
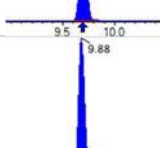
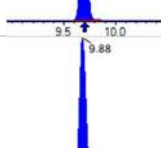
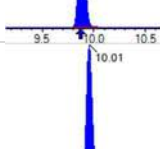
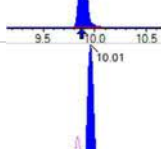
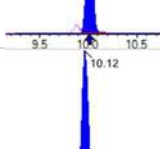
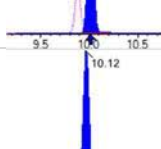
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 10690103 (498.0 / 478.0) 212628	(10.17 , 1.00) (0.00 , N/A , 0.0)	1114.6 571.5	0.0199 95.3 95.3	10.1798 [10.0000]	101.8%			
NMeFOSA	(512.0 / 219.0) 7084423 (512.0 / 169.0) 4954197	(10.61 , 1.00) (0.00 , N/A , 0.0)	1134.1 874.7	0.6993 101.1 101.1	42.9979 [40.0000]	107.5%			
NEIFOSA	(526.0 / 219.0) 6732334 (526.0 / 169.0) 7081313	(10.70 , 1.00) (0.00 , N/A , 0.0)	938.9 1276.7	1.0518 106.0 106.0	44.1475 [40.0000]	110.4%			
NMeFOSAA	(570.0 / 419.0) 2300672 (570.0 / 483.0) 1155811	(9.48 , 1.00) (0.00 , N/A , 0.1)	609.6 547.9	0.5024 90.3 90.3	11.2570 [10.0000]	112.6%			
NEIFOSAA	(584.0 / 419.0) 1697247 (584.0 / 526.0) 988305	(9.67 , 1.00) (0.01 , N/A , 0.0)	900.1 418.0	0.5823 98.2 98.2	9.9843 [10.0000]	99.8%			
NMeFOSE	(616.0 / 59.0) 1907826	(10.58 , 1.00) (0.01 , N/A , 0.0)	1106.8	N/A 0.0 0.0	42.0023 [40.0000]	105.0%			
NEtFOSE	(630.0 / 59.0) 408726	(10.67 , 1.00) (0.01 , N/A , 0.0)	1681.9	N/A 0.0 0.0	42.1994 [40.0000]	105.5%			
HFPO-DA	(285.0 / 169.0) 2823804 (285.0 / 185.0) 7899392	(6.47 , 1.00) (0.00 , N/A , 0.0)	745.0 754.9	2.7974 109.1 109.1	19.3635 [20.0000]	96.8%			
ADONA	(377.0 / 85.0) 12590888 (377.0 / 251.0) 1410655	(7.37 , 1.14) (N/A , 0.03 , 0.2)	707.3 545.8	0.1120 91.1 91.1	21.6659 [18.8540]	114.9%			
9CI-Pf3ONS	(531.0 / 351.0) 30081674 (533.0 / 353.0) 9621509	(9.70 , 1.50) (N/A , 0.01 , 0.0)	712.4 631.7	0.3198 101.2 101.2	18.9527 [18.6651]	101.5%			
11CI-PF3OUDS	(631.0 / 451.0) 18467630 (633.0 / 453.0) 5632838	(10.00 , 1.54) (N/A , 0.00 , 0.0)	1424.5 1108.0	0.3050 98.5 98.5	20.5582 [18.8642]	109.0%			

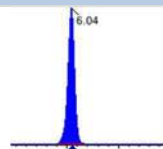
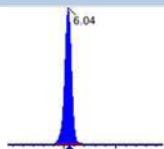
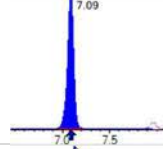
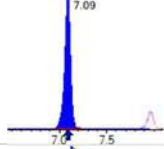
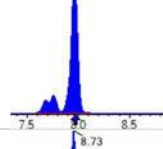
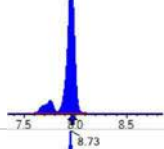
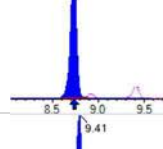
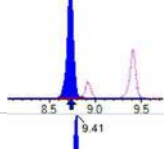
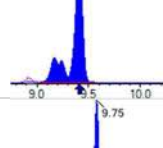
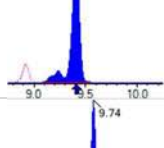
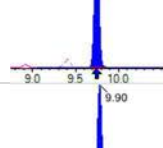
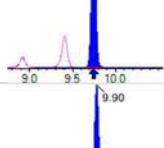
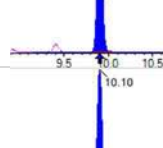
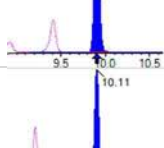
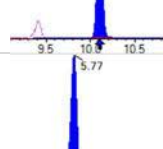
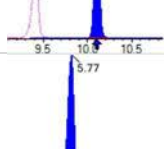
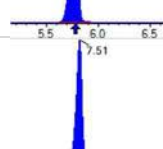
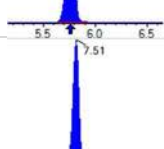
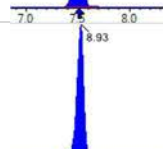
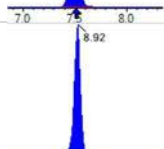
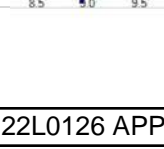
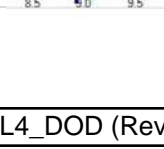
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 377032 (241.0 / 117.0) 513910	(4.47 , 0.90) (N/A , 0.03 , 0.1)	685.4 579.1	1.3630 103.6 103.6	39.9624 [40.0000]	99.9%			
5:3FTCA	(341.0 / 236.7) 2248511 (341.0 / 217.0) 3859161	(6.77 , 1.10) (N/A , 0.03 , 0.1)	466.1 619.2	1.7163 95.6 95.6	37.7013 [40.0000]	94.3%			
7:3FTCA	(441.0 / 317.0) 3208348 (441.0 / 337.0) 2727172	(8.58 , 1.40) (N/A , 0.02 , 0.0)	531.9 522.2	0.8500 103.1 103.1	41.2964 [40.0000]	103.2%			
PFEESA	(315.0 / 135.0) 6236653 (315.0 / 83.0) 1969690	(6.57 , 1.07) (N/A , 0.02 , 0.0)	730.7 726.4	0.3158 103.6 103.6	17.4327 [17.8492]	97.7%			
PFMPA	(229.0 / 85.0) 1492846	(4.17 , 0.84) (N/A , 0.03 , 0.0)	912.1	N/A 0.0 0.0	18.6222 [20.0000]	93.1%			
PFMBA	(279.0 / 85.0) 4836584	(5.36 , 1.08) (N/A , 0.03 , 0.0)	728.3	N/A 0.0 0.0	21.1568 [20.0000]	105.8%			
NFDHA	(295.0 / 201.0) 3799235 (295.0 / 85.0) 3115389	(6.01 , 0.98) (N/A , 0.03 , 0.2)	656.8 625.6	0.8200 95.5 95.5	19.8646 [20.0000]	99.3%			
13C3_PFBA_IIS	(216.0 / 172.0) 200324	(3.67 , N/A) (N/A , 0.03 , N/A)	525.2	N/A	0.9302 [1.0000]	93.0% { 87.5% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 389404	(6.13 , N/A) (N/A , 0.02 , N/A)	564.6	N/A	1.0258 [1.0000]	102.6% { 100.2% }			
13C4_PFOA_IIS	(417.0 / 372.0) 350279	(7.87 , N/A) (N/A , 0.02 , N/A)	417.2	N/A	0.9704 [1.0000]	97.0% { 93.3% }			
13C5_PFNA_IIS	(468.0 / 423.0) 324422	(8.61 , N/A) (N/A , 0.02 , N/A)	484.5	N/A	1.1032 [1.0000]	110.3% { 106.1% }			

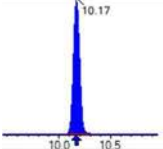
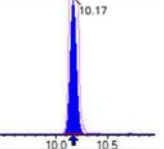
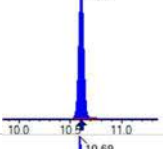
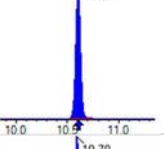
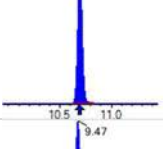
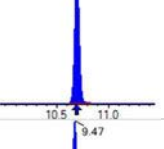
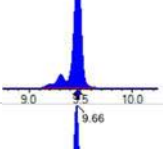
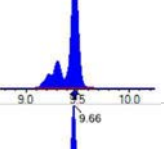
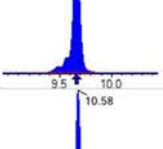
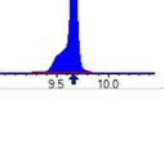
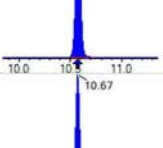
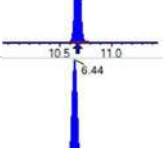
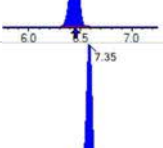
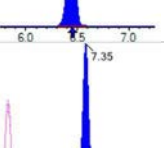
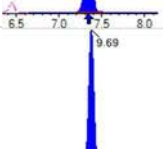
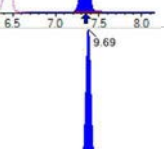
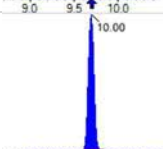
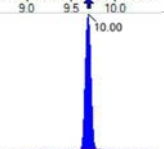

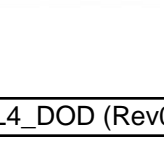
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 304333	(9.28 , N/A) (N/A , 0.01 , N/A)	355.6	N/A	0.8934 [1.0000]	89.3% { 83.5% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 594228	(7.98 , N/A) (N/A , 0.02 , N/A)	573.6	N/A	0.9821 [1.0000]	98.2% { 93.7% }			
13C4_PFOS_IIS	(503.0 / 79.9) 569198	(9.42 , N/A) (N/A , 0.01 , N/A)	461.2	N/A	0.8827 [1.0000]	88.3% { 91.8% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1583488	(3.67 , N/A) (N/A , 0.03 , N/A)	633.9	N/A	7.8733 [8.0000]	98.4% { 85.5% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1156316	(4.97 , N/A) (N/A , 0.03 , N/A)	598.9	N/A	3.9360 [4.0000]	98.4% { 97.8% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 785326	(6.13 , N/A) (N/A , 0.02 , N/A)	523.9	N/A	1.9708 [2.0000]	98.5% { 105.0% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 621659	(7.05 , N/A) (N/A , 0.02 , N/A)	464.1	N/A	1.7959 [2.0000]	89.8% { 90.5% }			
13C8_PFOA_EIS	(421.0 / 376.0) 694283	(7.87 , N/A) (N/A , 0.02 , N/A)	674.6	N/A	1.9372 [2.0000]	96.9% { 90.6% }			
13C9_PFNA_EIS	(472.0 / 427.0) 303425	(8.61 , N/A) (N/A , 0.02 , N/A)	345.6	N/A	0.9001 [1.0000]	90.0% { 99.1% }			
13C6_PFDA_EIS	(519.0 / 474.0) 393291	(9.28 , N/A) (N/A , 0.01 , N/A)	419.5	N/A	1.0699 [1.0000]	107.0% { 91.1% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 455574	(9.70 , N/A) (N/A , 0.01 , N/A)	384.5	N/A	1.0077 [1.0000]	100.8% { 81.1% }			

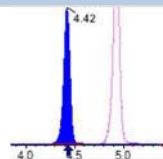
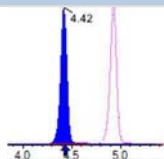
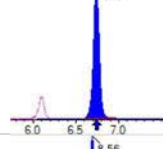
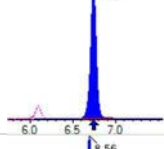
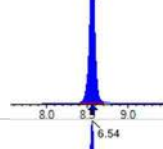
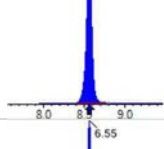
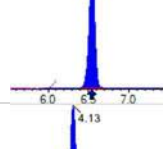
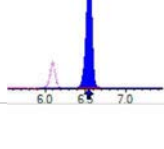
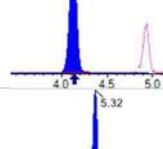
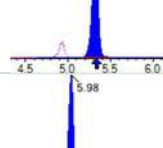
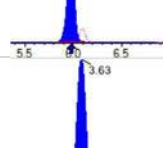
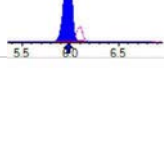
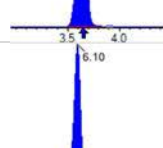
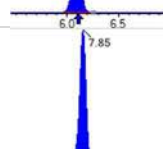
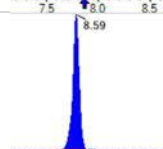
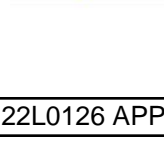
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 486230	(9.89 , N/A) (N/A , 0.01 , N/A)	406.7	N/A	1.0778 [1.0000]	107.8% { 84.1% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 313306	(10.12 , N/A) (N/A , 0.00 , N/A)	1128.6	N/A	1.0960 [1.0000]	109.6% { 93.7% }			
13C3_PFBs_EIS	(302.0 / 80.0) 1796948	(6.07 , N/A) (N/A , 0.03 , N/A)	589.1	N/A	1.9981 [2.0000]	99.9% { 98.2% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 920368	(7.98 , N/A) (N/A , 0.02 , N/A)	631.0	N/A	1.8900 [2.0000]	94.5% { 92.6% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1488050	(9.42 , N/A) (N/A , 0.01 , N/A)	135.9	N/A	2.1694 [2.0000]	108.5% { 90.7% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 414157	(5.80 , N/A) (N/A , 0.03 , N/A)	553.3	N/A	4.0761 [4.0000]	101.9% { 95.5% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 495229	(7.53 , N/A) (N/A , 0.02 , N/A)	580.3	N/A	3.6837 [4.0000]	92.1% { 86.0% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 578392	(8.94 , N/A) (N/A , 0.01 , N/A)	456.1	N/A	3.4131 [4.0000]	85.3% { 91.0% }			
13C8_PFOSA_EIS	(506.0 / 78.0) 1811036	(10.17 , N/A) (N/A , 0.00 , N/A)	563.9	N/A	2.2621 [2.0000]	113.1% { 100.7% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 339225	(10.60 , N/A) (N/A , 0.00 , N/A)	706.1	N/A	2.2406 [2.0000]	112.0% { 91.8% }			
D5_NEtFOSA_EIS	(531.0 / 169.0) 307484	(10.69 , N/A) (N/A , 0.00 , N/A)	685.8	N/A	2.2174 [2.0000]	110.9% { 90.3% }			

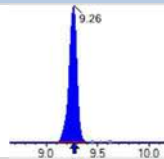
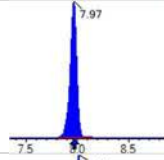
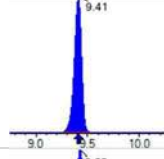
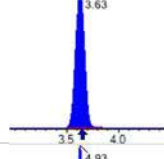
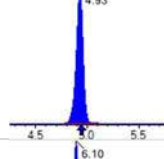
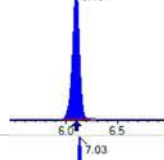
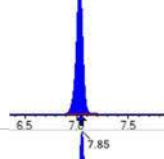
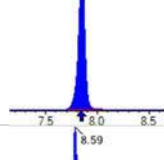
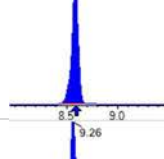
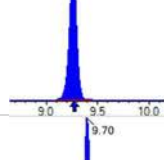
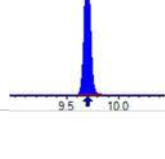
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 900879	(9.48 , N/A) (N/A , 0.01 , N/A)	342.8	N/A	4.1742 [4.0000]	104.4% { 88.5% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 689761	(9.66 , N/A) (N/A , 0.01 , N/A)	95.7	N/A	4.0196 [4.0000]	100.5% { 95.3% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 744063	(10.57 , N/A) (N/A , 0.00 , N/A)	1456.3	N/A	22.4946 [20.0000]	112.5% { 92.2% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 354050	(10.67 , N/A) (N/A , 0.00 , N/A)	1293.6	N/A	23.2119 [20.0000]	116.1% { 92.7% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1680665	(6.47 , N/A) (N/A , 0.02 , N/A)	781.6	N/A	7.5394 [8.0000]	94.2% { 95.5% }			

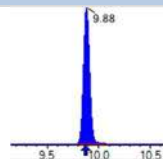
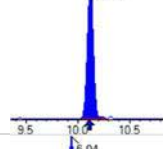
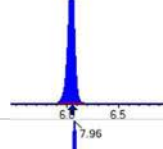
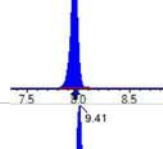
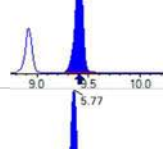
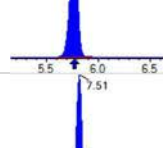
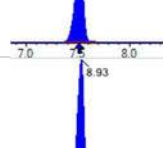
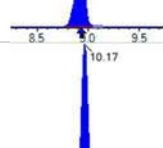
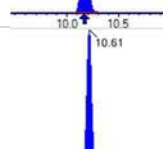
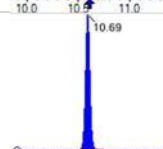
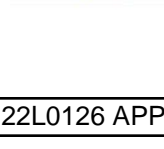
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 16031092	(3.63 , 1.00) (0.00 , N/A , 0.0)	629.4	N/A 0.0 0.0	85.1840 [80.0000]	106.5%			
PFPeA	(263.0 / 219.0) 10310339 (263.0 / 69.0) 114506	(4.93 , 1.00) (0.00 , N/A , 0.1)	555.7 600.9	0.0111 107.5 107.5	40.9568 [40.0000]	102.4%			
PFHxA	(313.0 / 269.0) 7618587 (313.0 / 119.0) 702473	(6.10 , 1.00) (0.00 , N/A , -0.1)	594.6 521.2	0.0922 94.7 94.7	20.8711 [20.0000]	104.4%			
PFHpA	(363.0 / 319.0) 7287682 (363.0 / 169.0) 1916229	(7.03 , 1.00) (0.00 , N/A , 0.1)	540.7 453.7	0.2629 91.9 91.9	20.7723 [20.0000]	103.9%			
PFOA	(413.0 / 369.0) 8023613 (413.0 / 169.0) 2445963	(7.85 , 1.00) (0.00 , N/A , 0.1)	639.8 756.8	0.3048 100.4 100.4	22.0423 [20.0000]	110.2%			
PFNA	(463.0 / 419.0) 5916228 (463.0 / 169.0) 1182298	(8.59 , 1.00) (0.00 , N/A , 0.0)	561.4 479.5	0.1998 94.4 94.4	21.5216 [20.0000]	107.6%			
PFDA	(513.0 / 469.0) 8108290 (513.0 / 169.0) 796824	(9.27 , 1.00) (0.01 , N/A , 0.3)	452.7 387.7	0.0983 106.6 106.6	20.5217 [20.0000]	102.6%			
PFUnA	(563.0 / 519.0) 7872574 (563.0 / 169.0) 711380	(9.70 , 1.00) (0.00 , N/A , 0.0)	654.7 406.9	0.0904 117.5 117.5	19.5702 [20.0000]	97.9%			
PFDaA	(613.0 / 569.0) 9695968 (613.0 / 169.0) 1260786	(9.88 , 1.00) (0.00 , N/A , -0.1)	798.5 656.1	0.1300 96.5 96.5	19.9187 [20.0000]	99.6%			
PFTrDA	(663.0 / 619.0) 8584478 (663.0 / 169.0) 1621569	(10.01 , 1.01) (N/A , 0.00 , -0.1)	690.2 806.3	0.1889 86.7 86.7	20.2113 [20.0000]	101.1%			
PFTeDA	(713.0 / 669.0) 5932051 (713.0 / 169.0) 1016462	(10.12 , 1.00) (0.00 , N/A , -0.1)	995.2 602.8	0.1714 86.8 86.8	19.8214 [20.0000]	99.1%			

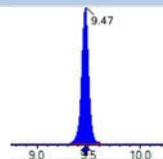
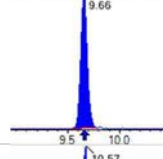
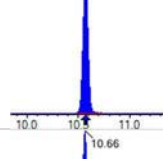
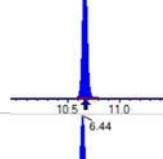
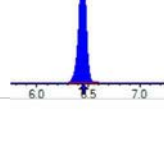
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 10280245 (299.0 / 99.0) 6814706	(6.04 , 1.00) (0.00 , N/A , 0.1)	730.2 688.8	0.6629 100.9 100.9	18.5618 [17.6947]	104.9%			
PFPeS	(349.0 / 80.0) 19169511 (349.0 / 99.0) 6765436	(7.09 , 0.89) (N/A , 0.00 , 0.0)	669.0 723.2	0.3529 95.2 95.2	21.5622 [18.7676]	114.9%			
PFHxS	(399.0 / 80.0) 15765930 (399.0 / 99.0) 5189556	(7.96 , 1.00) (0.00 , N/A , 0.2)	725.3 948.5	0.3292 101.0 101.0	20.1346 [18.2197]	110.5%			
PFHpS	(449.0 / 80.0) 15144276 (449.0 / 99.0) 3919483	(8.73 , 0.93) (N/A , 0.00 , 0.1)	600.8 589.4	0.2588 99.3 99.3	19.9828 [19.0281]	105.0%			
PFOS	(499.0 / 80.0) 17095229 (499.0 / 99.0) 4121039	(9.41 , 1.00) (0.00 , N/A , 0.1)	377.6 812.2	0.2411 115.9 115.9	19.5993 [18.5499]	105.7%			
PFNS	(549.0 / 80.0) 18819672 (549.0 / 99.0) 4992952	(9.75 , 1.04) (N/A , 0.00 , 0.1)	997.9 815.7	0.2653 111.5 111.5	19.0343 [19.1977]	99.1%			
PFDS	(599.0 / 80.0) 22458739 (599.0 / 99.0) 5348517	(9.90 , 1.05) (N/A , 0.00 , 0.0)	1234.4 1061.5	0.2381 90.5 90.5	18.7862 [19.2621]	97.5%			
PFDoS	(699.0 / 80.0) 10537315 (699.0 / 99.0) 2265451	(10.10 , 1.07) (N/A , 0.00 , -0.1)	949.4 1126.0	0.2150 109.7 109.7	18.7170 [19.3913]	96.5%			
4:2FTS	(327.0 / 307.0) 25387651 (327.0 / 81.0) 16106373	(5.77 , 1.00) (0.00 , N/A , 0.0)	535.3 528.2	0.6344 88.6 88.6	80.5747 [74.7622]	107.8%			
6:2FTS	(427.0 / 407.0) 15176350 (427.0 / 81.0) 11260166	(7.51 , 1.00) (0.00 , N/A , 0.2)	597.7 627.2	0.7420 100.4 100.4	78.3454 [75.9234]	103.2%			
8:2FTS	(527.0 / 507.0) 18188097 (527.0 / 81.0) 13955507	(8.93 , 1.00) (0.00 , N/A , 0.1)	588.6 608.7	0.7673 125.4 125.4	70.6146 [76.6631]	92.1%			

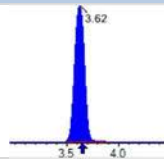
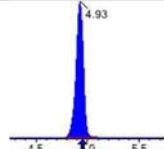
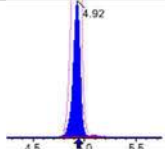
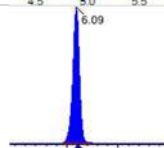
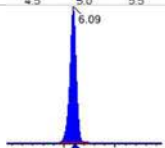
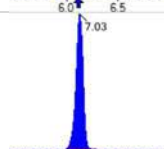
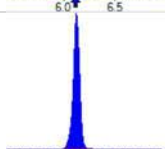
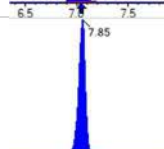
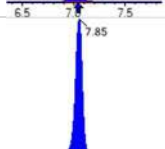
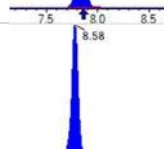
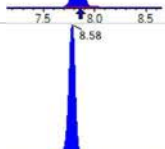
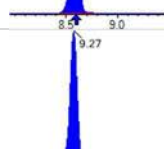
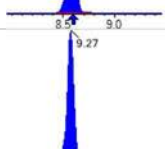
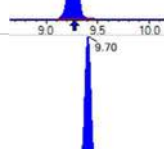
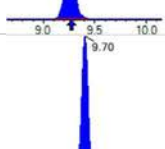
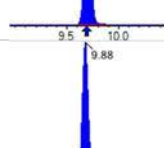
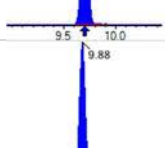
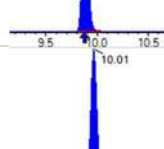
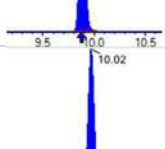
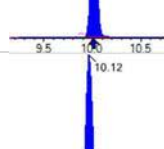
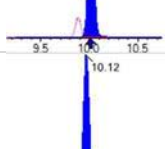
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 20253598 (498.0 / 478.0) 416065	(10.17 , 1.00) (0.00 , N/A , 0.2)	1050.9 777.5	0.0205 98.4 98.4	21.5187 [20.0000]	107.6%			
NMeFOSA	(512.0 / 219.0) 13079510 (512.0 / 169.0) 9403727	(10.61 , 1.00) (0.00 , N/A , 0.0)	828.4 950.4	0.7190 103.9 103.9	75.0212 [80.0000]	93.8%			
NEIFOSA	(526.0 / 219.0) 13184214 (526.0 / 169.0) 13625970	(10.69 , 1.00) (0.00 , N/A , 0.0)	1158.1 1461.8	1.0335 104.1 104.1	83.9622 [80.0000]	105.0%			
NMeFOSAA	(570.0 / 419.0) 4590427 (570.0 / 483.0) 2102020	(9.47 , 1.00) (0.01 , N/A , 0.0)	702.0 480.2	0.4579 82.3 82.3	22.2578 [20.0000]	111.3%			
NEIFOSAA	(584.0 / 419.0) 3385236 (584.0 / 526.0) 1972786	(9.66 , 1.00) (0.00 , N/A , -0.1)	881.2 607.1	0.5828 98.2 98.2	19.7750 [20.0000]	98.9%			
NMeFOSE	(616.0 / 59.0) 3896670	(10.58 , 1.00) (0.01 , N/A , 0.0)	959.0	N/A 0.0 0.0	84.1352 [80.0000]	105.2%			
NEtFOSE	(630.0 / 59.0) 814218	(10.67 , 1.00) (0.01 , N/A , 0.0)	1250.0	N/A 0.0 0.0	77.2542 [80.0000]	96.6%			
HFPO-DA	(285.0 / 169.0) 5791919 (285.0 / 185.0) 15202720	(6.44 , 1.00) (0.00 , N/A , 0.0)	656.8 776.4	2.6248 102.4 102.4	41.4174 [40.0000]	103.5%			
ADONA	(377.0 / 85.0) 23722654 (377.0 / 251.0) 2864075	(7.35 , 1.14) (N/A , 0.00 , 0.1)	634.8 539.7	0.1207 98.1 98.1	42.5691 [37.7080]	112.9%			
9CI-Pf3ONS	(531.0 / 351.0) 50559666 (533.0 / 353.0) 18205007	(9.69 , 1.50) (N/A , 0.00 , 0.0)	649.1 771.7	0.3601 114.0 114.0	33.2188 [37.3302]	89.0%			
11CI-PF3OUDS	(631.0 / 451.0) 32876918 (633.0 / 453.0) 9782084	(10.00 , 1.55) (N/A , 0.00 , 0.0)	758.9 862.0	0.2975 96.1 96.1	38.1660 [37.7283]	101.2%			

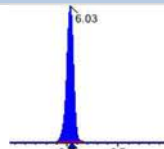
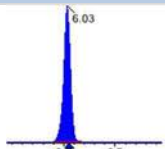
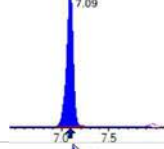
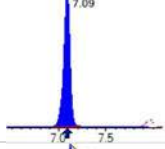
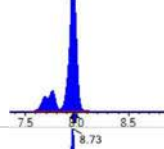
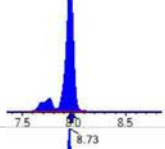
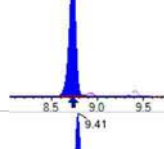
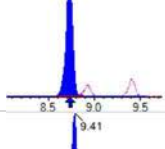
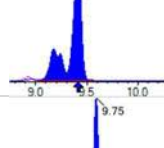
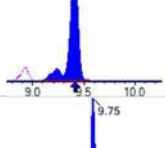
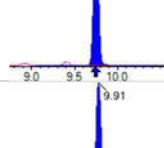
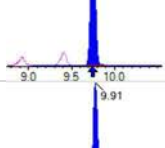
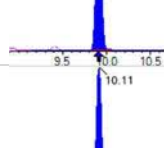
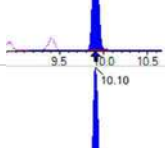
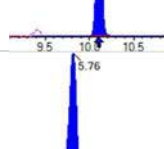
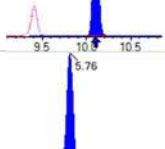
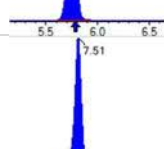
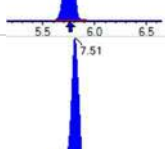
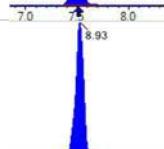
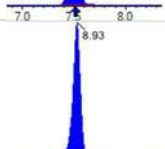
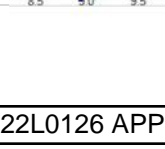
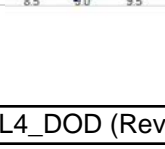
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 734876 (241.0 / 117.0) 986554	(4.42 , 0.90) (N/A , -0.02 , 0.1)	592.0 542.9	1.3425 102.1 102.1	84.9317 [80.0000]	106.2%			
5:3FTCA	(341.0 / 236.7) 4620197 (341.0 / 217.0) 7651534	(6.74 , 1.11) (N/A , 0.00 , -0.1)	566.6 597.2	1.6561 92.3 92.3	82.6936 [80.0000]	103.4%			
7:3FTCA	(441.0 / 317.0) 5924810 (441.0 / 337.0) 5080641	(8.56 , 1.40) (N/A , 0.00 , 0.0)	439.2 454.1	0.8575 104.0 104.0	81.4058 [80.0000]	101.8%			
PFEESA	(315.0 / 135.0) 13135685 (315.0 / 83.0) 3878663	(6.54 , 1.07) (N/A , 0.00 , -0.2)	764.1 729.4	0.2953 96.8 96.8	39.1937 [35.6984]	109.8%			
PFMPA	(229.0 / 85.0) 3210423	(4.13 , 0.84) (N/A , -0.01 , 0.0)	795.2	N/A 0.0 0.0	43.6678 [40.0000]	109.2%			
PFMBA	(279.0 / 85.0) 9288980	(5.32 , 1.08) (N/A , -0.01 , 0.0)	800.5	N/A 0.0 0.0	44.3059 [40.0000]	110.8%			
NFDHA	(295.0 / 201.0) 7216740 (295.0 / 85.0) 6423925	(5.98 , 0.98) (N/A , 0.00 , 0.0)	561.4 509.0	0.8901 103.6 103.6	40.2786 [40.0000]	100.7%			
13C3_PFBA_IIS	(216.0 / 172.0) 205755	(3.63 , N/A) (N/A , -0.01 , N/A)	555.3	N/A	0.9554 [1.0000]	95.5% { 89.9% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 385413	(6.10 , N/A) (N/A , -0.01 , N/A)	554.0	N/A	1.0153 [1.0000]	101.5% { 99.1% }			
13C4_PFOA_IIS	(417.0 / 372.0) 364139	(7.85 , N/A) (N/A , 0.00 , N/A)	684.8	N/A	1.0088 [1.0000]	100.9% { 97.0% }			
13C5_PFNA_IIS	(468.0 / 423.0) 307819	(8.59 , N/A) (N/A , 0.00 , N/A)	519.1	N/A	1.0468 [1.0000]	104.7% { 100.7% }			

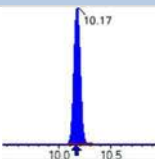
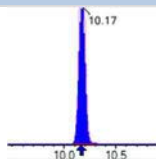
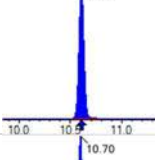
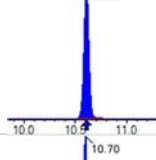
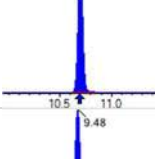
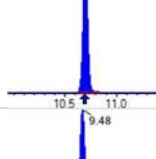
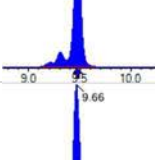
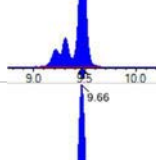
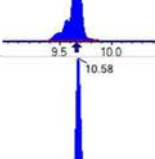
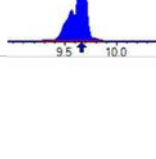
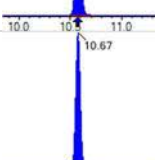
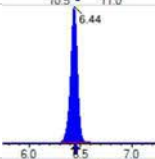
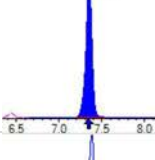
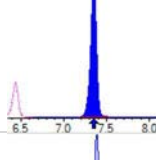
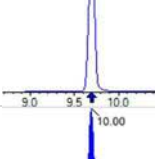
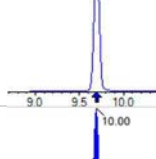
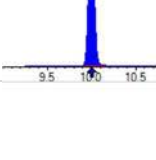
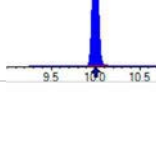
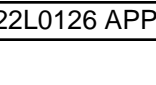
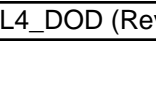
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 331826	(9.26 , N/A) (N/A , 0.00 , N/A)	289.6	N/A	0.9741 [1.0000]	97.4% { 91.0% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 582624	(7.97 , N/A) (N/A , 0.00 , N/A)	551.4	N/A	0.9629 [1.0000]	96.3% { 91.9% }			
13C4_PFOS_IIS	(503.0 / 79.9) 710418	(9.41 , N/A) (N/A , 0.00 , N/A)	537.3	N/A	1.1018 [1.0000]	110.2% { 114.6% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1611377	(3.63 , N/A) (N/A , -0.01 , N/A)	767.0	N/A	7.8005 [8.0000]	97.5% { 87.0% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1060461	(4.93 , N/A) (N/A , -0.02 , N/A)	612.2	N/A	3.6471 [4.0000]	91.2% { 89.7% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 735698	(6.10 , N/A) (N/A , -0.01 , N/A)	521.0	N/A	1.8654 [2.0000]	93.3% { 98.3% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 669612	(7.03 , N/A) (N/A , -0.01 , N/A)	486.7	N/A	1.9544 [2.0000]	97.7% { 97.5% }			
13C8_PFOA_EIS	(421.0 / 376.0) 683408	(7.85 , N/A) (N/A , 0.00 , N/A)	504.9	N/A	1.8343 [2.0000]	91.7% { 89.2% }			
13C9_PFNA_EIS	(472.0 / 427.0) 284823	(8.59 , N/A) (N/A , 0.00 , N/A)	490.2	N/A	0.8905 [1.0000]	89.1% { 93.0% }			
13C6_PFDA_EIS	(519.0 / 474.0) 398432	(9.26 , N/A) (N/A , -0.01 , N/A)	364.0	N/A	0.9941 [1.0000]	99.4% { 92.3% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 440797	(9.70 , N/A) (N/A , 0.00 , N/A)	613.6	N/A	0.8942 [1.0000]	89.4% { 78.5% }			

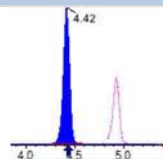
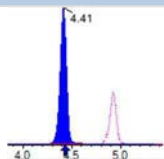
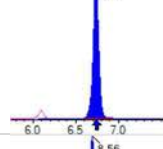
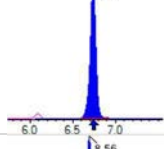
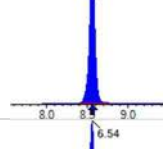
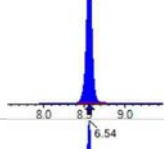
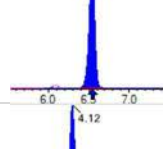
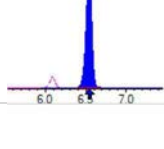
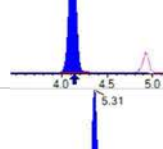
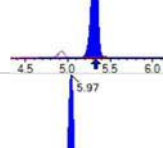
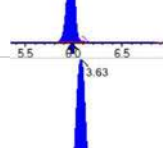
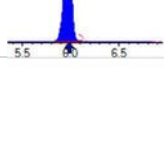
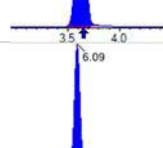
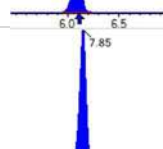
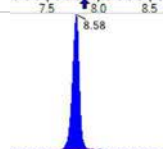
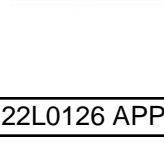
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 507930	(9.88 , N/A) (N/A , 0.00 , N/A)	544.8	N/A	1.0326 [1.0000]	103.3% { 87.9% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 295853	(10.12 , N/A) (N/A , 0.00 , N/A)	625.5	N/A	0.9492 [1.0000]	94.9% { 88.5% }			
13C3_PFBs_EIS	(302.0 / 80.0) 1736286	(6.04 , N/A) (N/A , -0.01 , N/A)	688.0	N/A	1.9691 [2.0000]	98.5% { 94.8% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 904155	(7.96 , N/A) (N/A , 0.00 , N/A)	686.5	N/A	1.8937 [2.0000]	94.7% { 91.0% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1498107	(9.41 , N/A) (N/A , 0.00 , N/A)	82.3	N/A	1.7499 [2.0000]	87.5% { 91.3% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 370637	(5.77 , N/A) (N/A , -0.01 , N/A)	493.1	N/A	3.7205 [4.0000]	93.0% { 85.5% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 482612	(7.51 , N/A) (N/A , 0.00 , N/A)	660.3	N/A	3.6614 [4.0000]	91.5% { 83.8% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 660486	(8.93 , N/A) (N/A , 0.00 , N/A)	436.0	N/A	3.9751 [4.0000]	99.4% { 104.0% }			
13C8_PFOSA_EIS	(506.0 / 78.0) 1623191	(10.17 , N/A) (N/A , 0.00 , N/A)	539.0	N/A	1.6244 [2.0000]	81.2% { 90.3% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 358954	(10.61 , N/A) (N/A , 0.00 , N/A)	708.0	N/A	1.8996 [2.0000]	95.0% { 97.2% }			
D5_NEtFOSA_EIS	(531.0 / 169.0) 316616	(10.69 , N/A) (N/A , 0.00 , N/A)	595.2	N/A	1.8294 [2.0000]	91.5% { 93.0% }			

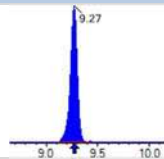
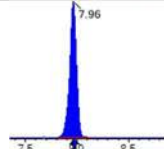
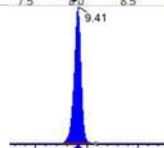
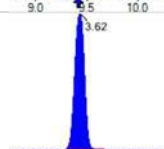
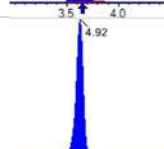
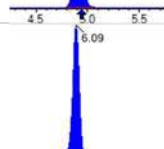
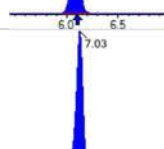
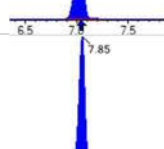
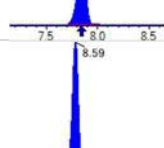
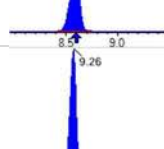
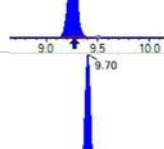
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 909091	(9.47 , N/A) (N/A , 0.00 , N/A)	540.2	N/A	3.3749 [4.0000]	84.4% { 89.3% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 694614	(9.66 , N/A) (N/A , 0.00 , N/A)	115.8	N/A	3.2432 [4.0000]	81.1% { 96.0% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 758681	(10.57 , N/A) (N/A , 0.00 , N/A)	977.7	N/A	18.3771 [20.0000]	91.9% { 94.0% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 381418	(10.66 , N/A) (N/A , 0.00 , N/A)	823.9	N/A	20.0353 [20.0000]	100.2% { 99.8% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1611647	(6.44 , N/A) (N/A , 0.00 , N/A)	883.2	N/A	7.3047 [8.0000]	91.3% { 91.6% }			

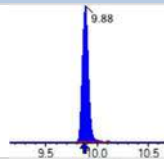
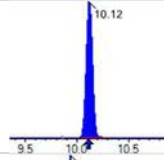
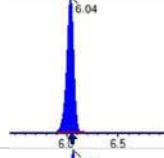
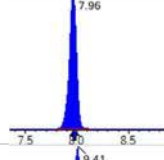
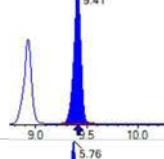
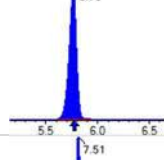
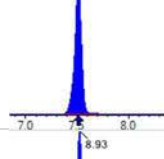
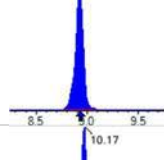
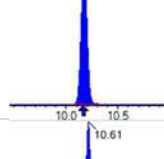
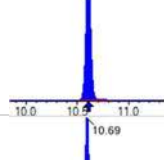
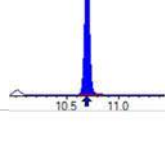
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 33569570	(3.62 , 1.00) (0.00 , N/A , 0.0)	573.3	N/A 0.0 0.0	194.4852 [200.0000]	97.2%			
PFPeA	(263.0 / 219.0) 23278094 (263.0 / 69.0) 247295	(4.93 , 1.00) (0.00 , N/A , 0.0)	542.3 596.8	0.0106 102.8 102.8	101.3295 [100.0000]	101.3%			
PFHxA	(313.0 / 269.0) 17653199 (313.0 / 119.0) 1598452	(6.09 , 1.00) (0.00 , N/A , 0.0)	569.0 595.9	0.0905 93.0 93.0	49.3703 [50.0000]	98.7%			
PFHpA	(363.0 / 319.0) 16286788 (363.0 / 169.0) 4767611	(7.03 , 1.00) (0.00 , N/A , 0.1)	532.0 561.4	0.2927 102.3 102.3	49.0298 [50.0000]	98.1%			
PFOA	(413.0 / 369.0) 17642359 (413.0 / 169.0) 5590591	(7.85 , 1.00) (0.00 , N/A , 0.1)	617.1 617.7	0.3169 104.4 104.4	48.4551 [50.0000]	96.9%			
PFNA	(463.0 / 419.0) 14950600 (463.0 / 169.0) 3093568	(8.58 , 1.00) (0.00 , N/A , -0.1)	639.9 648.1	0.2069 97.7 97.7	58.4455 [50.0000]	116.9%			
PFDA	(513.0 / 469.0) 18329827 (513.0 / 169.0) 1650236	(9.27 , 1.00) (0.01 , N/A , 0.0)	460.2 532.0	0.0900 97.7 97.7	50.5354 [50.0000]	101.1%			
PFUnA	(563.0 / 519.0) 15578289 (563.0 / 169.0) 1481688	(9.70 , 1.00) (0.00 , N/A , 0.0)	507.8 371.0	0.0951 123.7 123.7	50.2512 [50.0000]	100.5%			
PFDaA	(613.0 / 569.0) 22678536 (613.0 / 169.0) 3050501	(9.88 , 1.00) (0.00 , N/A , 0.0)	808.2 662.2	0.1345 99.9 99.9	48.1501 [50.0000]	96.3%			
PFTrDA	(663.0 / 619.0) 17672109 (663.0 / 169.0) 3451672	(10.01 , 1.01) (N/A , 0.01 , -0.2)	731.2 678.8	0.1953 89.7 89.7	43.0013 [50.0000]	86.0%			
PFTeDA	(713.0 / 669.0) 13791642 (713.0 / 169.0) 2869510	(10.12 , 1.00) (0.00 , N/A , -0.1)	859.6 810.8	0.2081 105.4 105.4	46.8208 [50.0000]	93.6%			

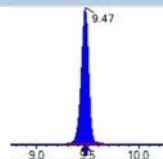
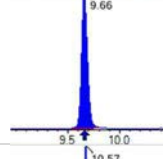
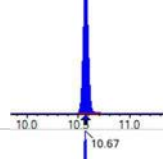
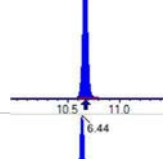
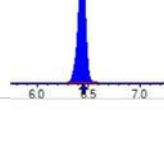
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (Δ RT-[min], Δ RT- CV[min], Δ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 22793351 (299.0 / 99.0) 14732428	(6.03 , 1.00) (0.00 , N/A , 0.0)	768.8 709.0	0.6463 98.3 98.3	46.7674 [44.2367]	105.7%			
PFPeS	(349.0 / 80.0) 40218405 (349.0 / 99.0) 14962488	(7.09 , 0.89) (N/A , 0.00 , 0.0)	586.9 713.7	0.3720 100.4 100.4	45.3788 [46.9191]	96.7%			
PFHxS	(399.0 / 80.0) 35801691 (399.0 / 99.0) 11830220	(7.96 , 1.00) (0.00 , N/A , 0.1)	690.7 876.4	0.3304 101.4 101.4	45.8641 [45.5491]	100.7%			
PFHpS	(449.0 / 80.0) 34360748 (449.0 / 99.0) 9478674	(8.73 , 0.93) (N/A , 0.00 , 0.1)	610.7 627.3	0.2759 105.9 105.9	52.0299 [47.5703]	109.4%			
PFOS	(499.0 / 80.0) 37368869 (499.0 / 99.0) 8914695	(9.41 , 1.00) (0.00 , N/A , 0.2)	316.1 1073.9	0.2386 114.7 114.7	49.1653 [46.3746]	106.0%			
PFNS	(549.0 / 80.0) 39253416 (549.0 / 99.0) 10617329	(9.75 , 1.04) (N/A , 0.00 , 0.1)	769.1 907.9	0.2705 113.6 113.6	45.5601 [47.9943]	94.9%			
PFDS	(599.0 / 80.0) 43813922 (599.0 / 99.0) 11690487	(9.91 , 1.05) (N/A , 0.01 , 0.1)	1331.0 1083.4	0.2668 101.4 101.4	42.0581 [48.1553]	87.3%			
PFDoS	(699.0 / 80.0) 24176284 (699.0 / 99.0) 4947011	(10.11 , 1.07) (N/A , 0.00 , 0.2)	1542.5 1161.8	0.2046 104.4 104.4	49.2809 [48.4781]	101.7%			
4:2FTS	(327.0 / 307.0) 46914845 (327.0 / 81.0) 30392481	(5.76 , 1.00) (0.00 , N/A , 0.1)	468.9 552.8	0.6478 90.5 90.5	154.9729 [186.9055]	82.9%			
6:2FTS	(427.0 / 407.0) 30620667 (427.0 / 81.0) 23809834	(7.51 , 1.00) (0.00 , N/A , 0.0)	553.7 585.7	0.7776 105.2 105.2	157.5925 [189.8085]	83.0%			
8:2FTS	(527.0 / 507.0) 35359827 (527.0 / 81.0) 24620576	(8.93 , 1.00) (0.00 , N/A , 0.0)	462.4 445.1	0.6963 113.8 113.8	140.2896 [191.6577]	73.2%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 36987214 (498.0 / 478.0) 966926	(10.17 , 1.00) (0.00 , N/A , 0.0)	837.2 493.2	0.0261 125.2 125.2	44.9874 [50.0000]	90.0%			
NMeFOSA	(512.0 / 219.0) 26657439 (512.0 / 169.0) 19827408	(10.61 , 1.00) (0.00 , N/A , 0.0)	1144.4 1193.4	0.7438 107.5 107.5	143.5775 [200.0000]	71.8%			
NEIFOSA	(526.0 / 219.0) 26441647 (526.0 / 169.0) 28216493	(10.70 , 1.00) (0.00 , N/A , 0.0)	1208.4 1347.0	1.0671 107.5 107.5	181.8386 [200.0000]	90.9%			
NMeFOSAA	(570.0 / 419.0) 9531785 (570.0 / 483.0) 4860188	(9.48 , 1.00) (0.00 , N/A , 0.1)	719.2 399.9	0.5099 91.6 91.6	52.2034 [50.0000]	104.4%			
NEIFOSAA	(584.0 / 419.0) 6456135 (584.0 / 526.0) 4152414	(9.66 , 1.00) (0.00 , N/A , -0.1)	995.6 631.1	0.6432 108.4 108.4	47.7698 [50.0000]	95.5%			
NMeFOSE	(616.0 / 59.0) 9085783	(10.58 , 1.00) (0.01 , N/A , 0.0)	1031.4	N/A 0.0 0.0	208.1854 [200.0000]	104.1%			
NEtFOSE	(630.0 / 59.0) 1834773	(10.67 , 1.00) (0.01 , N/A , 0.0)	1373.8	N/A 0.0 0.0	200.6270 [200.0000]	100.3%			
HFPO-DA	(285.0 / 169.0) 13516757 (285.0 / 185.0) 32294464	(6.44 , 1.00) (0.00 , N/A , 0.0)	647.4 645.5	2.3892 93.2 93.2	101.8045 [100.0000]	101.8%			
ADONA	(377.0 / 85.0) 46413143 (377.0 / 251.0) 6104545	(7.35 , 1.14) (N/A , 0.00 , -0.1)	668.4 614.5	0.1315 106.9 106.9	87.7217 [94.2700]	93.1%			
9CI-Pf3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000 [93.3254]	N/A%			QC,
11CI-PF3OUDS	(631.0 / 451.0) 59355780 (633.0 / 453.0) 23725464	(10.00 , 1.55) (N/A , 0.01 , 0.0)	1116.9 987.8	0.3997 129.0 129.0	72.5743 [94.3208]	76.9%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 1874462 (241.0 / 117.0) 2453342	(4.42 , 0.90) (N/A , -0.02 , 0.1)	698.2 621.4	1.3088 99.5 99.5	237.3929 [200.0000]	118.7%			
5:3FTCA	(341.0 / 236.7) 12152463 (341.0 / 217.0) 18812655	(6.74 , 1.11) (N/A , -0.01 , -0.1)	578.8 622.5	1.5481 86.3 86.3	222.0479 [200.0000]	111.0%			
7:3FTCA	(441.0 / 317.0) 14311721 (441.0 / 337.0) 13178355	(8.56 , 1.40) (N/A , 0.00 , 0.1)	526.5 537.1	0.9208 111.7 111.7	200.7446 [200.0000]	100.4%			
PFEESA	(315.0 / 135.0) 28898997 (315.0 / 83.0) 8885940	(6.54 , 1.07) (N/A , -0.01 , 0.0)	806.1 780.0	0.3075 100.8 100.8	88.0273 [89.2459]	98.6%			
PFMPA	(229.0 / 85.0) 7131587	(4.12 , 0.84) (N/A , -0.02 , 0.0)	910.9	N/A 0.0 0.0	106.2969 [100.0000]	106.3%			
PFMBA	(279.0 / 85.0) 20237634	(5.31 , 1.08) (N/A , -0.02 , 0.0)	680.1	N/A 0.0 0.0	105.7764 [100.0000]	105.8%			
NFDHA	(295.0 / 201.0) 16978532 (295.0 / 85.0) 13947691	(5.97 , 0.98) (N/A , -0.01 , 0.1)	588.2 617.6	0.8215 95.6 95.6	96.7397 [100.0000]	96.7%			
13C3_PFBA_IIS	(216.0 / 172.0) 184575	(3.63 , N/A) (N/A , -0.02 , N/A)	469.6	N/A	0.8571 [1.0000]	85.7% { 80.6% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 349653	(6.09 , N/A) (N/A , -0.01 , N/A)	615.3	N/A	0.9211 [1.0000]	92.1% { 89.9% }			
13C4_PFOA_IIS	(417.0 / 372.0) 335488	(7.85 , N/A) (N/A , 0.00 , N/A)	508.6	N/A	0.9294 [1.0000]	92.9% { 89.3% }			
13C5_PFNA_IIS	(468.0 / 423.0) 270575	(8.58 , N/A) (N/A , 0.00 , N/A)	341.8	N/A	0.9201 [1.0000]	92.0% { 88.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 314944	(9.27, N/A) (N/A, 0.00, N/A)	470.4	N/A	0.9245 [1.0000]	92.5% { 86.4% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 598929	(7.96, N/A) (N/A, 0.00, N/A)	643.3	N/A	0.9898 [1.0000]	99.0% { 94.5% }			
13C4_PFOS_IIS	(503.0 / 79.9) 589019	(9.41, N/A) (N/A, 0.00, N/A)	429.8	N/A	0.9135 [1.0000]	91.3% { 95.0% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1477920	(3.62, N/A) (N/A, -0.02, N/A)	597.8	N/A	7.9754 [8.0000]	99.7% { 79.8% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 967741	(4.92, N/A) (N/A, -0.02, N/A)	628.1	N/A	3.6686 [4.0000]	91.7% { 81.8% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 720657	(6.09, N/A) (N/A, -0.01, N/A)	597.2	N/A	2.0141 [2.0000]	100.7% { 96.3% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 634008	(7.03, N/A) (N/A, -0.01, N/A)	508.3	N/A	2.0398 [2.0000]	102.0% { 92.3% }			
13C8_PFOA_EIS	(421.0 / 376.0) 683572	(7.85, N/A) (N/A, 0.00, N/A)	529.8	N/A	1.9915 [2.0000]	99.6% { 89.2% }			
13C9_PFNA_EIS	(472.0 / 427.0) 265041	(8.59, N/A) (N/A, 0.00, N/A)	439.5	N/A	0.9427 [1.0000]	94.3% { 86.6% }			
13C6_PFDA_EIS	(519.0 / 474.0) 365764	(9.26, N/A) (N/A, -0.01, N/A)	392.9	N/A	0.9615 [1.0000]	96.1% { 84.7% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 339697	(9.70, N/A) (N/A, 0.00, N/A)	365.9	N/A	0.7261 [1.0000]	72.6% { 60.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 491463	(9.88 , N/A) (N/A , 0.00 , N/A)	482.8	N/A	1.0527 [1.0000]	105.3% { 85.0% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 291195	(10.12 , N/A) (N/A , 0.00 , N/A)	695.0	N/A	0.9844 [1.0000]	98.4% { 87.1% }			
13C3_PFBs_EIS	(302.0 / 80.0) 1527929	(6.04 , N/A) (N/A , -0.01 , N/A)	594.2	N/A	1.6856 [2.0000]	84.3% { 83.5% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 901357	(7.96 , N/A) (N/A , 0.00 , N/A)	633.6	N/A	1.8364 [2.0000]	91.8% { 90.7% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1305448	(9.41 , N/A) (N/A , 0.00 , N/A)	59.4	N/A	1.8391 [2.0000]	92.0% { 79.6% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 356106	(5.76 , N/A) (N/A , -0.01 , N/A)	524.1	N/A	3.4773 [4.0000]	86.9% { 82.1% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 484087	(7.51 , N/A) (N/A , 0.00 , N/A)	579.7	N/A	3.5726 [4.0000]	89.3% { 84.0% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 646332	(8.93 , N/A) (N/A , 0.00 , N/A)	344.6	N/A	3.7840 [4.0000]	94.6% { 101.7% }			
13C8_PFOSA_EIS	(506.0 / 78.0) 1417895	(10.17 , N/A) (N/A , 0.00 , N/A)	483.7	N/A	1.7114 [2.0000]	85.6% { 78.8% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 382263	(10.61 , N/A) (N/A , 0.00 , N/A)	866.8	N/A	2.4399 [2.0000]	122.0% { 103.5% }			
D5_NEtFOSA_EIS	(531.0 / 169.0) 293201	(10.69 , N/A) (N/A , 0.00 , N/A)	541.6	N/A	2.0432 [2.0000]	102.2% { 86.1% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 804844	(9.47, N/A) (N/A, 0.01, N/A)	473.4	N/A	3.6037 [4.0000]	90.1% { 79.0% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 548391	(9.66, N/A) (N/A, 0.00, N/A)	148.6	N/A	3.0882 [4.0000]	77.2% { 75.8% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 714917	(10.57, N/A) (N/A, 0.00, N/A)	1319.9	N/A	20.8861 [20.0000]	104.4% { 88.6% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 320462	(10.67, N/A) (N/A, 0.00, N/A)	1298.8	N/A	20.3028 [20.0000]	101.5% { 83.9% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1530154	(6.44, N/A) (N/A, -0.01, N/A)	616.0	N/A	7.6446 [8.0000]	95.6% { 87.0% }			

SECOND-SOURCE CALIBRATION VERIFICATION**EPA 1633****Laboratory:** APPL, LLC**SDG:****Client:** AECOM**Project:** Red Hill AFFF Assessment Sampling**Calibration:** 2253011**Laboratory ID:** SB04012-SCV1**Sequence:** SB04012**Standard ID:** 22L0452

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
PFBA	8.00	8.01	0.09	30.00
PFPEA	4.00	4.07	1.8	30.00
PFHXA	2.00	1.87	-6.6	30.00
PFHPA	2.00	1.88	-5.8	30.00
PFOA	2.00	2.08	3.9	30.00
PFNA	2.00	2.21	10.7	30.00
PFDA	2.00	2.35	17.5	30.00
PFUnA	2.00	1.90	-5.0	30.00
PFDOA	2.00	2.04	2.0	30.00
PFTRDA	2.00	2.51	25.4	30.00
PFTEDA	2.00	1.93	-3.7	30.00
PFBS	1.77	1.66	-6.2	30.00
PFPEs	1.88	2.02	7.4	30.00
PFHXS	1.83	1.85	1.3	30.00
PFHPS	1.91	1.86	-2.8	30.00
PFOS	1.86	1.94	4.3	30.00
PFNS	1.92	2.01	4.8	30.00
PFDS	1.93	1.84	-4.8	30.00
PFDOS	1.94	2.01	3.4	30.00
4:2FTS	7.50	7.21	-3.9	30.00
6:2FTS	7.60	8.08	6.3	30.00
8:2FTS	7.68	7.95	3.5	30.00
PFOSA	2.00	1.90	-5.0	30.00
NMeFOSA	8.00	7.67	-4.2	30.00
NEtFOSA	8.00	7.78	-2.7	30.00
NMeFOSAA	2.00	2.26	12.8	30.00
NEtFOSAA	2.00	2.01	0.6	30.00

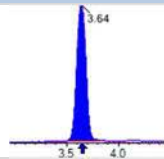
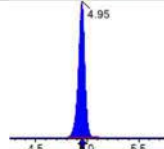
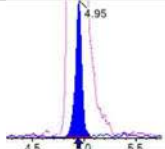
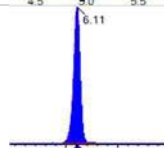
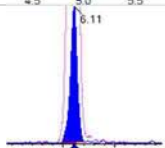
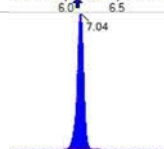
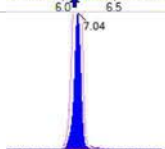
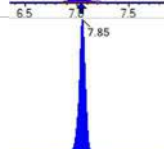
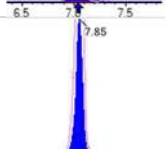
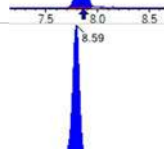
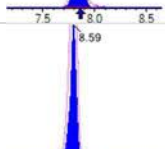
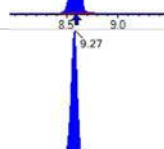
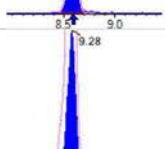
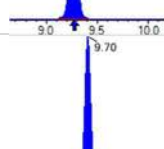
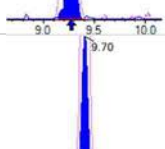
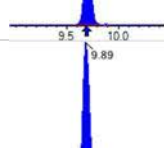
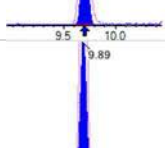
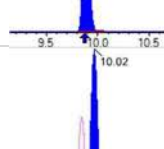
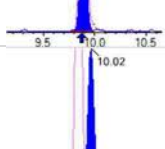
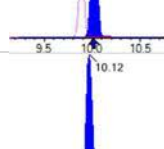
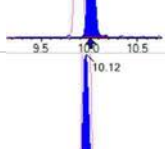
SECOND-SOURCE CALIBRATION VERIFICATION**EPA 1633****Laboratory:** APPL, LLC**SDG:****Client:** AECOM**Project:** Red Hill AFFF Assessment Sampling**Calibration:** 2253011**Laboratory ID:** SB04012-SCV1**Sequence:** SB04012**Standard ID:** 22L0452

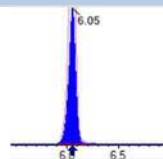
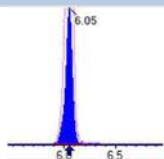
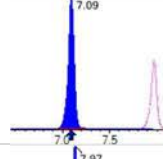
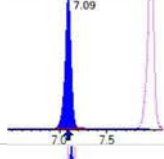
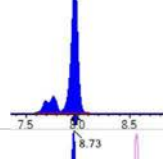
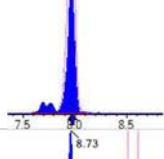
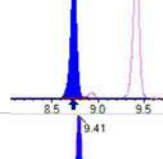
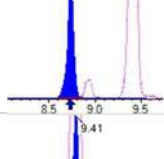
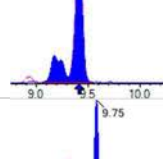
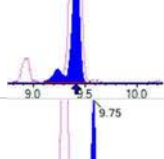
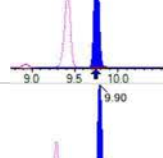
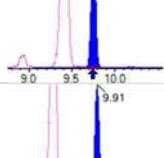
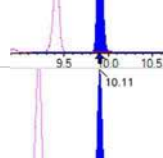
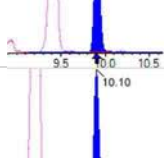
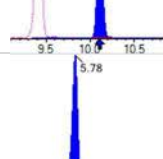
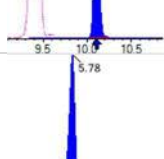
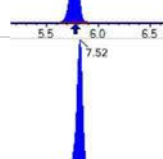
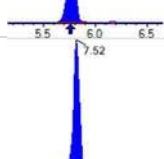
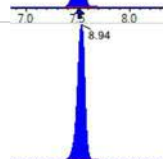
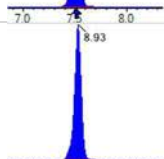
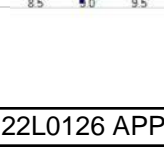
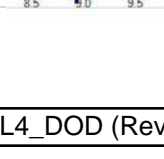
NMeFOSE	8.00	8.06	0.7	30.00
NEtFOSE	8.00	8.23	2.9	30.00
HFPO-DA	4.00	3.82	-4.4	30.00
ADONA	3.78	3.88	2.6	30.00
PFEESA	3.56	3.17	-11.1	30.00
PFMPA	4.00	4.11	2.8	30.00
PFMBA	4.00	3.87	-3.3	30.00
NFDHA	4.00	3.84	-4.0	30.00
9CL-PF3ONS	3.74	3.57	-4.6	30.00
11CL-PF3OUDS	3.78	4.21	11.3	30.00
3:3FTCA	8.00	7.82	-2.2	30.00
5:3FTCA	8.00	7.12	-11.0	30.00
7:3FTCA	8.00	7.26	-9.3	30.00
13C4-PFBA	8.00	7.92	-1.1	30.00
13C5-PFPEA	4.00	3.86	-3.4	30.00
13C5-PFHXA	2.00	2.00	-0.02	30.00
13C4-PFHPA	2.00	1.96	-1.9	30.00
13C8-PFOA	2.00	1.95	-2.4	30.00
13C9-PFNA	1.00	1.08	8.1	30.00
13C6-PFDA	1.00	0.870	-13.0	30.00
13C7-PFUnA	1.00	1.05	5.0	30.00
13C2-PFDOA	1.00	0.932	-6.8	30.00
13C2-PFTEDA	1.00	1.06	6.2	30.00
13C3-PFBS	2.00	2.04	2.1	30.00
13C3-PFHXS	2.00	1.97	-1.6	30.00
13C8-PFOS	2.00	1.93	-3.4	30.00
13C2-4:2FTS	4.00	4.63	15.8	30.00
13C2-6:2FTS	4.00	4.21	5.2	30.00
13C2-8:2FTS	4.00	4.01	0.2	30.00

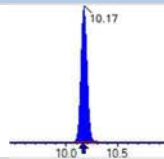
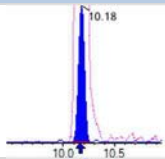
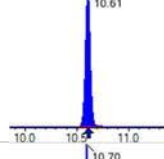
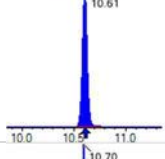
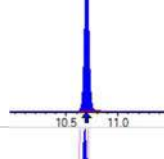
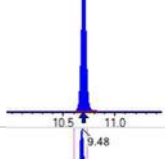
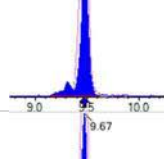
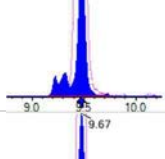
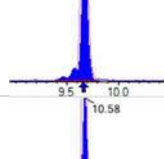
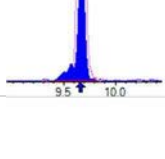
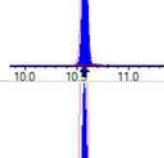
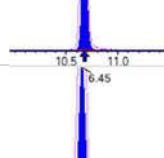
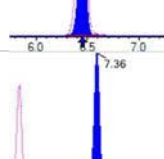
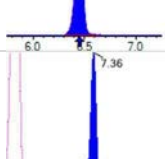
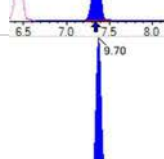
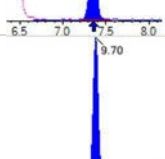
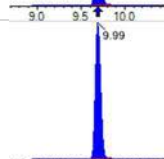
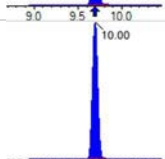
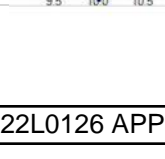
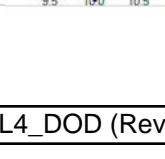
SECOND-SOURCE CALIBRATION VERIFICATION**EPA 1633****Laboratory:** APPL, LLC**SDG:****Client:** AECOM**Project:** Red Hill AFFF Assessment Sampling**Calibration:** 2253011**Laboratory ID:** SB04012-SCV1**Sequence:** SB04012**Standard ID:** 22L0452

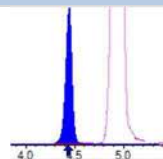
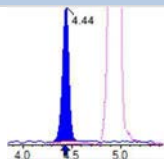
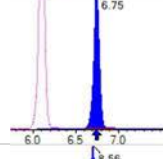
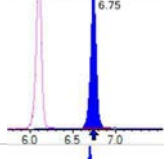
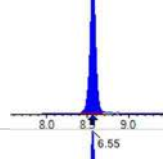
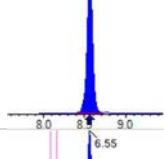
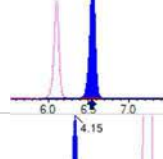
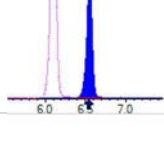
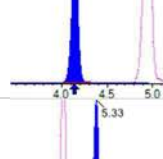
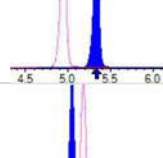
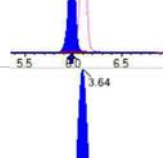
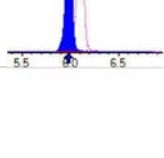
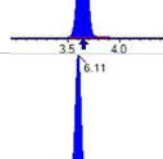
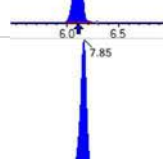
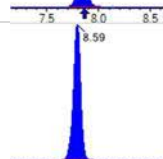

13C8-PFOSA	2.00	2.08	4.0	30.00
D5-NETFOSA	2.00	2.16	8.0	30.00
D3-NMEFOSA	2.00	2.02	0.9	30.00
D3-NMEFOSAA	4.00	3.59	-10.3	30.00
D5-NETFOSAA	4.00	4.12	2.9	30.00
D7-NMEFOSE	20.0	20.7	3.6	30.00
D9-NETFOSSE	20.0	22.8	13.8	30.00
13C3-HFPO-DA	8.00	7.80	-2.6	30.00

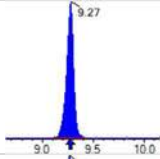
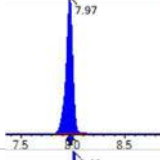
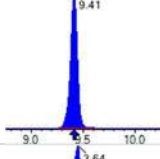
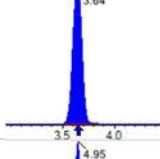
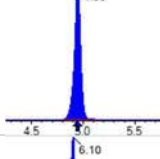
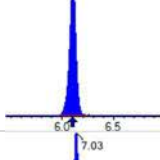
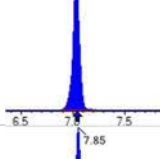
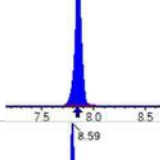
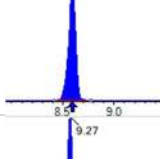
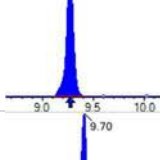
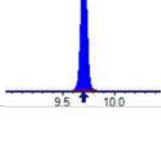
* Values outside of QC limits

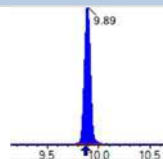
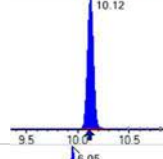
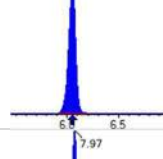
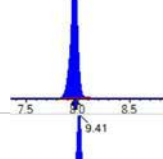
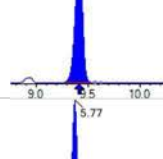
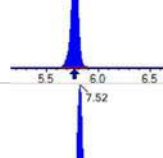
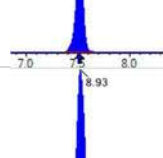
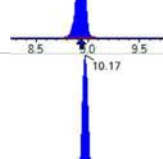
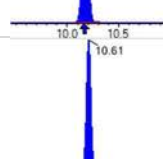
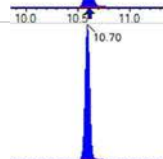
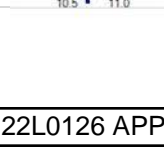
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 1812704	(3.64 , 1.00) (0.00 , N/A , 0.0)	391.2	N/A 0.0 0.0	8.0069 [8.0000]	100.1%			
PFPeA	(263.0 / 219.0) 1169044 (263.0 / 69.0) 13046	(4.95 , 1.00) (0.00 , N/A , 0.0)	594.7 157.9	0.0112 108.0 108.0	4.0729 [4.0000]	101.8%			
PFHxA	(313.0 / 269.0) 787341 (313.0 / 119.0) 74425	(6.11 , 1.00) (0.00 , N/A , 0.1)	482.3 240.2	0.0945 97.1 97.1	1.8689 [2.0000]	93.4%			
PFHpA	(363.0 / 319.0) 714377 (363.0 / 169.0) 194873	(7.04 , 1.00) (0.00 , N/A , -0.1)	618.0 374.1	0.2728 95.3 95.3	1.8844 [2.0000]	94.2%			
PFOA	(413.0 / 369.0) 851624 (413.0 / 169.0) 244443	(7.85 , 1.00) (0.00 , N/A , 0.0)	469.1 630.1	0.2870 94.5 94.5	2.0772 [2.0000]	103.9%			
PFNA	(463.0 / 419.0) 650559 (463.0 / 169.0) 130108	(8.59 , 1.00) (0.00 , N/A , -0.3)	498.9 311.7	0.2000 94.5 94.5	2.2149 [2.0000]	110.7%			
PFDA	(513.0 / 469.0) 872574 (513.0 / 169.0) 79380	(9.27 , 1.00) (0.00 , N/A , -0.3)	541.1 213.2	0.0910 98.7 98.7	2.3506 [2.0000]	117.5%			
PFUnA	(563.0 / 519.0) 962768 (563.0 / 169.0) 89172	(9.70 , 1.00) (0.00 , N/A , -0.1)	472.9 231.3	0.0926 120.4 120.4	1.8998 [2.0000]	95.0%			
PFDaA	(613.0 / 569.0) 962090 (613.0 / 169.0) 154959	(9.89 , 1.00) (0.00 , N/A , -0.1)	564.0 282.3	0.1611 119.6 119.6	2.0401 [2.0000]	102.0%			
PFTrDA	(663.0 / 619.0) 1031920 (663.0 / 169.0) 176405	(10.02 , 1.01) (N/A , 0.01 , 0.2)	672.7 383.9	0.1709 78.5 78.5	2.5078 [2.0000]	125.4%			
PFTeDA	(713.0 / 669.0) 692460 (713.0 / 169.0) 120925	(10.12 , 1.00) (0.00 , N/A , 0.1)	923.6 337.9	0.1746 88.5 88.5	1.9265 [2.0000]	96.3%			

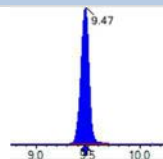
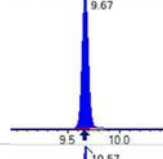
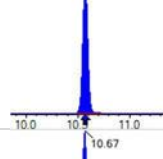
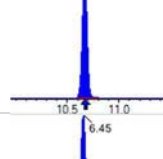
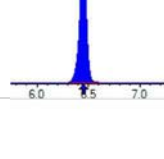
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (Δ RT-[min], Δ RT- CV[min], Δ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 1002005 (299.0 / 99.0) 637150	(6.05 , 1.00) (0.00 , N/A , 0.1)	581.3 569.0	0.6359 96.8 96.8	1.6599 [1.7695]	93.8%			
PFPeS	(349.0 / 80.0) 1961555 (349.0 / 99.0) 687372	(7.09 , 0.89) (N/A , 0.00 , 0.1)	655.3 532.0	0.3504 94.5 94.5	2.0194 [1.8768]	107.6%			
PFHxS	(399.0 / 80.0) 1585787 (399.0 / 99.0) 518597	(7.97 , 1.00) (0.00 , N/A , 0.2)	682.0 695.1	0.3270 100.3 100.3	1.8536 [1.8220]	101.7%			
PFHpS	(449.0 / 80.0) 1485197 (449.0 / 99.0) 385968	(8.73 , 0.93) (N/A , 0.00 , 0.0)	611.4 492.4	0.2599 99.7 99.7	1.8556 [1.9028]	97.5%			
PFOS	(499.0 / 80.0) 1787547 (499.0 / 99.0) 367051	(9.41 , 1.00) (0.00 , N/A , 0.0)	353.9 899.2	0.2053 98.7 98.7	1.9405 [1.8550]	104.6%			
PFNS	(549.0 / 80.0) 2100113 (549.0 / 99.0) 495852	(9.75 , 1.04) (N/A , 0.00 , -0.1)	741.7 664.9	0.2361 99.2 99.2	2.0113 [1.9198]	104.8%			
PFDS	(599.0 / 80.0) 2319531 (599.0 / 99.0) 569294	(9.90 , 1.05) (N/A , 0.00 , -0.2)	956.1 419.5	0.2454 93.3 93.3	1.8372 [1.9262]	95.4%			
PFDoS	(699.0 / 80.0) 1192145 (699.0 / 99.0) 260064	(10.11 , 1.07) (N/A , 0.00 , 0.2)	734.6 667.9	0.2181 111.3 111.3	2.0051 [1.9391]	103.4%			
4:2FTS	(327.0 / 307.0) 2970727 (327.0 / 81.0) 1848444	(5.78 , 1.00) (0.00 , N/A , -0.1)	645.7 451.7	0.6222 86.9 86.9	7.2068 [7.4762]	96.4%			
6:2FTS	(427.0 / 407.0) 1890650 (427.0 / 81.0) 1294916	(7.52 , 1.00) (0.00 , N/A , 0.1)	589.9 697.9	0.6849 92.7 92.7	8.0805 [7.5923]	106.4%			
8:2FTS	(527.0 / 507.0) 2167513 (527.0 / 81.0) 1423596	(8.94 , 1.00) (0.01 , N/A , 0.2)	490.9 501.5	0.6568 107.4 107.4	7.9456 [7.6663]	103.6%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 2192130 (498.0 / 478.0) 48154	(10.17 , 1.00) (0.00 , N/A , -0.4)	961.9 377.7	0.0220 105.2 105.2	1.9007 [2.0000]	95.0%			
NMeFOSA	(512.0 / 219.0) 1358781 (512.0 / 169.0) 965891	(10.61 , 1.00) (0.00 , N/A , 0.0)	763.7 758.9	0.7109 102.7 102.7	7.6672 [8.0000]	95.8%			
NEIFOSA	(526.0 / 219.0) 1381224 (526.0 / 169.0) 1498077	(10.70 , 1.00) (0.00 , N/A , 0.0)	928.8 974.9	1.0846 109.3 109.3	7.7848 [8.0000]	97.3%			
NMeFOSAA	(570.0 / 419.0) 472999 (570.0 / 483.0) 230828	(9.48 , 1.00) (0.01 , N/A , 0.0)	382.8 341.9	0.4880 87.7 87.7	2.2551 [2.0000]	112.8%			
NEIFOSAA	(584.0 / 419.0) 418136 (584.0 / 526.0) 247455	(9.67 , 1.00) (0.00 , N/A , -0.1)	527.3 452.0	0.5918 99.8 99.8	2.0115 [2.0000]	100.6%			
NMeFOSE	(616.0 / 59.0) 402479	(10.58 , 1.00) (0.01 , N/A , 0.0)	1037.5	N/A 0.0 0.0	8.0564 [8.0000]	100.7%			
NEtFOSE	(630.0 / 59.0) 91764	(10.68 , 1.00) (0.01 , N/A , 0.0)	795.2	N/A 0.0 0.0	8.2323 [8.0000]	102.9%			
HFPO-DA	(285.0 / 169.0) 614283 (285.0 / 185.0) 1521837	(6.45 , 1.00) (0.00 , N/A , 0.0)	752.7 701.6	2.4774 96.6 96.6	3.8231 [4.0000]	95.6%			
ADONA	(377.0 / 85.0) 2483591 (377.0 / 251.0) 295254	(7.36 , 1.14) (N/A , 0.01 , 0.0)	601.1 399.9	0.1189 96.6 96.6	3.8788 [3.7708]	102.9%			
9CI-Pf3ONS	(531.0 / 351.0) 6241237 (533.0 / 353.0) 2228204	(9.70 , 1.50) (N/A , 0.01 , -0.1)	827.8 833.2	0.3570 113.0 113.0	3.5690 [3.7330]	95.6%			
11CI-PF3OUDS	(631.0 / 451.0) 4165355 (633.0 / 453.0) 1150900	(9.99 , 1.55) (N/A , 0.00 , -0.1)	793.9 772.4	0.2763 89.2 89.2	4.2085 [3.7728]	111.5%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 77196 (241.0 / 117.0) 96034	(4.44 , 0.90) (N/A , 0.00 , 0.1)	547.8 234.6	1.2440 94.6 94.6	7.8249 [8.0000]	97.8%			
5:3FTCA	(341.0 / 236.7) 459000 (341.0 / 217.0) 743389	(6.75 , 1.11) (N/A , 0.00 , 0.1)	443.3 535.9	1.6196 90.2 90.2	7.1181 [8.0000]	89.0%			
7:3FTCA	(441.0 / 317.0) 609788 (441.0 / 337.0) 499309	(8.56 , 1.40) (N/A , 0.00 , 0.0)	344.2 487.3	0.8188 99.3 99.3	7.2594 [8.0000]	90.7%			
PFEESA	(315.0 / 135.0) 1224330 (315.0 / 83.0) 368974	(6.55 , 1.07) (N/A , 0.00 , 0.0)	653.7 490.1	0.3014 98.8 98.8	3.1652 [3.5698]	88.7%			
PFMPA	(229.0 / 85.0) 344826	(4.15 , 0.84) (N/A , 0.01 , 0.0)	764.4	N/A 0.0 0.0	4.1136 [4.0000]	102.8%			
PFMBA	(279.0 / 85.0) 924738	(5.33 , 1.08) (N/A , 0.00 , 0.0)	717.7	N/A 0.0 0.0	3.8684 [4.0000]	96.7%			
NFDHA	(295.0 / 201.0) 794415 (295.0 / 85.0) 659847	(5.99 , 0.98) (N/A , 0.00 , 0.0)	633.9 610.6	0.8306 96.7 96.7	3.8417 [4.0000]	96.0%			
13C3_PFBA_IIS	(216.0 / 172.0) 243908	(3.64 , N/A) (N/A , 0.00 , N/A)	667.8	N/A	1.1326 [1.0000]	113.3% { 106.5% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 414950	(6.11 , N/A) (N/A , 0.00 , N/A)	597.2	N/A	1.0931 [1.0000]	109.3% { 106.7% }			
13C4_PFOA_IIS	(417.0 / 372.0) 385565	(7.85 , N/A) (N/A , 0.01 , N/A)	434.4	N/A	1.0681 [1.0000]	106.8% { 102.7% }			
13C5_PFNA_IIS	(468.0 / 423.0) 270918	(8.59 , N/A) (N/A , 0.00 , N/A)	468.1	N/A	0.9213 [1.0000]	92.1% { 88.6% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 356075	(9.27, N/A) (N/A, 0.01, N/A)	403.4	N/A	1.0453 [1.0000]	104.5% { 97.6% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 612256	(7.97, N/A) (N/A, 0.00, N/A)	625.9	N/A	1.0118 [1.0000]	101.2% { 96.6% }			
13C4_PFOS_IIS	(503.0 / 79.9) 679731	(9.41, N/A) (N/A, 0.00, N/A)	429.5	N/A	1.0542 [1.0000]	105.4% { 109.6% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1938437	(3.64, N/A) (N/A, 0.00, N/A)	648.1	N/A	7.9159 [8.0000]	98.9% { 104.6% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1209124	(4.95, N/A) (N/A, 0.00, N/A)	532.9	N/A	3.8623 [4.0000]	96.6% { 102.2% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 849099	(6.10, N/A) (N/A, 0.00, N/A)	604.6	N/A	1.9997 [2.0000]	100.0% { 113.5% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 723541	(7.03, N/A) (N/A, 0.00, N/A)	540.0	N/A	1.9615 [2.0000]	98.1% { 105.4% }			
13C8_PFOA_EIS	(421.0 / 376.0) 769737	(7.85, N/A) (N/A, 0.00, N/A)	544.9	N/A	1.9512 [2.0000]	97.6% { 100.5% }			
13C9_PFNA_EIS	(472.0 / 427.0) 304324	(8.59, N/A) (N/A, 0.01, N/A)	464.8	N/A	1.0811 [1.0000]	108.1% { 99.4% }			
13C6_PFDA_EIS	(519.0 / 474.0) 374331	(9.27, N/A) (N/A, 0.00, N/A)	319.1	N/A	0.8703 [1.0000]	87.0% { 86.7% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 555294	(9.70, N/A) (N/A, 0.01, N/A)	699.7	N/A	1.0498 [1.0000]	105.0% { 98.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 492077	(9.89 , N/A) (N/A , 0.01 , N/A)	428.5	N/A	0.9322 [1.0000]	93.2% { 85.1% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 355337	(10.12 , N/A) (N/A , 0.00 , N/A)	955.1	N/A	1.0624 [1.0000]	106.2% { 106.3% }			
13C3_PFBs_EIS	(302.0 / 80.0) 1892500	(6.05 , N/A) (N/A , 0.00 , N/A)	627.8	N/A	2.0424 [2.0000]	102.1% { 103.4% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 987867	(7.97 , N/A) (N/A , 0.01 , N/A)	687.2	N/A	1.9689 [2.0000]	98.4% { 99.4% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1582127	(9.41 , N/A) (N/A , 0.01 , N/A)	219.2	N/A	1.9314 [2.0000]	96.6% { 96.4% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 484892	(5.77 , N/A) (N/A , 0.00 , N/A)	607.3	N/A	4.6318 [4.0000]	115.8% { 111.8% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 582929	(7.52 , N/A) (N/A , 0.01 , N/A)	760.1	N/A	4.2084 [4.0000]	105.2% { 101.2% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 699530	(8.93 , N/A) (N/A , 0.00 , N/A)	486.2	N/A	4.0063 [4.0000]	100.2% { 110.1% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 1988959	(10.17 , N/A) (N/A , 0.00 , N/A)	934.3	N/A	2.0803 [2.0000]	104.0% { 110.6% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 364872	(10.61 , N/A) (N/A , 0.00 , N/A)	807.9	N/A	2.0181 [2.0000]	100.9% { 98.8% }			
D5_NeFOSA_EIS	(531.0 / 169.0) 357751	(10.70 , N/A) (N/A , 0.00 , N/A)	1157.6	N/A	2.1603 [2.0000]	108.0% { 105.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 924537	(9.47 , N/A) (N/A , 0.01 , N/A)	430.7	N/A	3.5872 [4.0000]	89.7% { 90.8% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 843451	(9.67 , N/A) (N/A , 0.01 , N/A)	117.5	N/A	4.1160 [4.0000]	102.9% { 116.5% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 818365	(10.57 , N/A) (N/A , 0.00 , N/A)	829.4	N/A	20.7177 [20.0000]	103.6% { 101.4% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 414418	(10.67 , N/A) (N/A , 0.00 , N/A)	1111.7	N/A	22.7516 [20.0000]	113.8% { 108.5% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1851733	(6.45 , N/A) (N/A , 0.00 , N/A)	584.3	N/A	7.7954 [8.0000]	97.4% { 105.3% }			

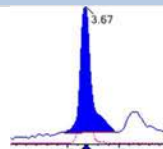
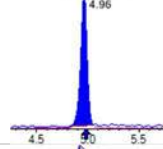
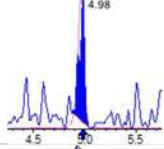
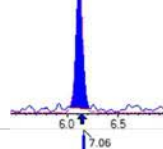
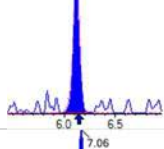
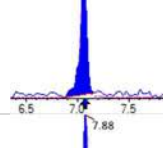
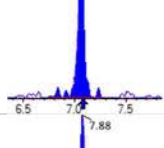
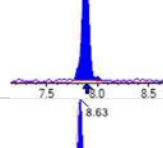
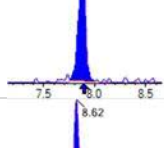
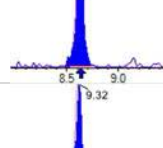
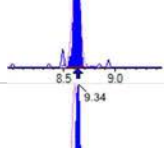
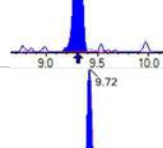
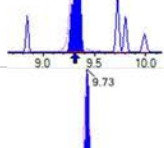
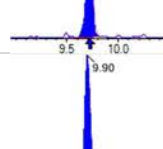
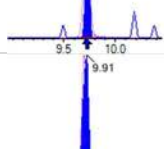
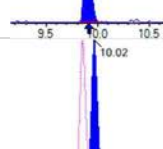
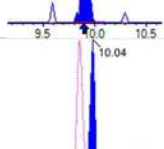
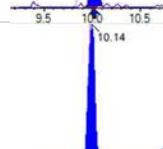
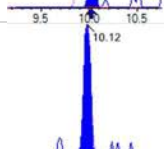
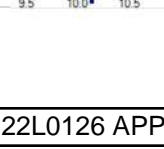
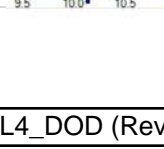
LOW-CONCENTRATION CALIBRATION VERIFICATION**EPA 1633****Laboratory:** APPL, LLC**SDG:****Client:** AECOM**Project:** Red Hill AFFF Assessment Sampling**Calibration:** 2253007**Laboratory ID:** SB03989-LCV1**Sequence:** SB03989**Standard ID:** 22L0300

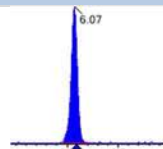
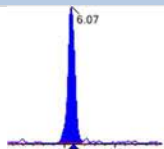
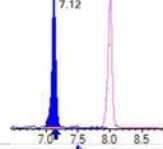
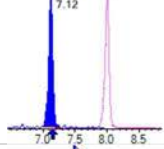
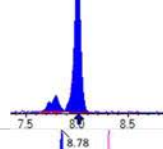
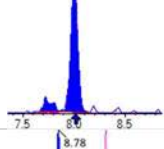
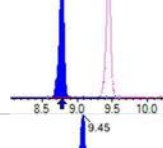
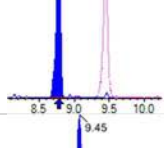
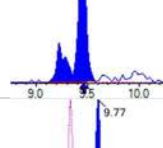
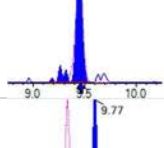
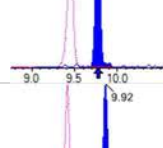
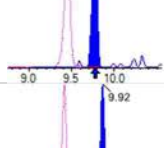
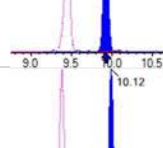
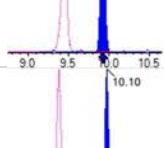
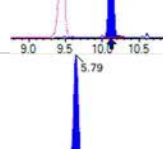
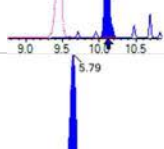
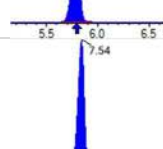
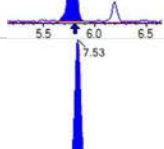
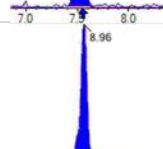
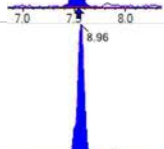

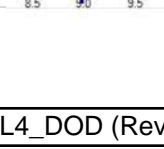
ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
PFBA	0.400	0.540	34.9 *	30.00
PFPEA	0.200	0.207	3.7	30.00
PFHXA	0.100	0.0952	-4.8	30.00
PFHPA	0.100	0.103	2.8	30.00
PFOA	0.100	0.112	11.7	30.00
PFNA	0.100	0.0950	-5.0	30.00
PFDA	0.100	0.107	7.4	30.00
PFUnA	0.100	0.118	18.3	30.00
PFDOA	0.100	0.0989	-1.1	30.00
PFTRDA	0.100	0.0800	-20.0	30.00
PFTEDA	0.100	0.102	1.6	30.00
PFBS	0.0885	0.0850	-4.0	30.00
PFPEs	0.0940	0.0869	-7.6	30.00
PFHXS	0.0915	0.0978	6.8	30.00
PFHPS	0.0955	0.0954	-0.1	30.00
PFOS	0.0930	0.111	19.3	30.00
PFNS	0.0960	0.107	11.7	30.00
PFDS	0.0965	0.109	12.7	30.00
PFDOS	0.0970	0.105	8.4	30.00
4:2FTS	0.375	0.389	3.6	30.00
6:2FTS	0.380	0.445	17.1	30.00
8:2FTS	0.384	0.363	-5.5	30.00
PFOSA	0.100	0.103	3.1	30.00
NMeFOSA	0.400	0.457	14.3	30.00
NEtFOSA	0.400	0.402	0.5	30.00
NMeFOSAA	0.100	0.127	27.4	30.00
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NMeFOSE	0.400	0.398	-0.5	30.00

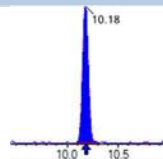
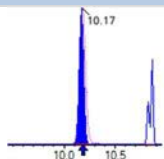
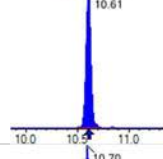
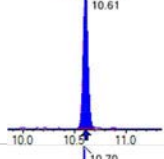
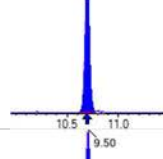
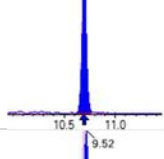
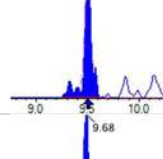
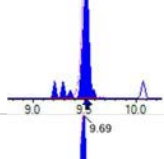
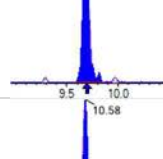
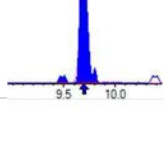
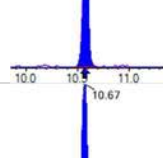
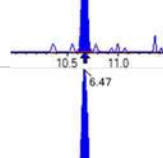
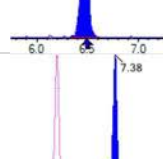
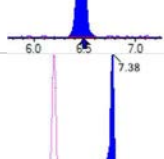
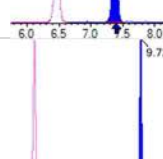
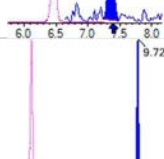
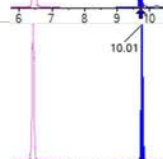
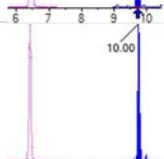

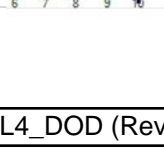
LOW-CONCENTRATION CALIBRATION VERIFICATION**EPA 1633****Laboratory:** APPL, LLC**SDG:****Client:** AECOM**Project:** Red Hill AFFF Assessment Sampling**Calibration:** 2253007**Laboratory ID:** SB03989-LCV1**Sequence:** SB03989**Standard ID:** 22L0300

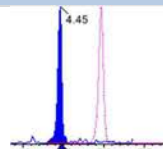
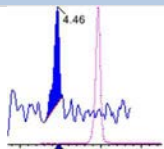
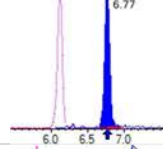
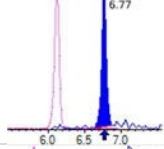
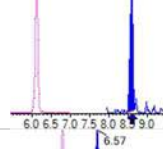
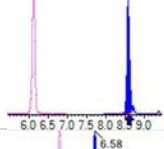
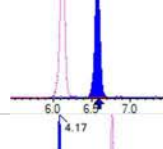
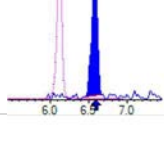
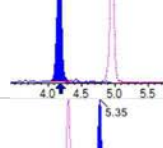
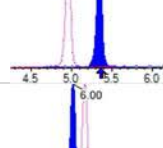
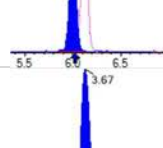
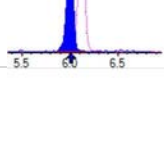
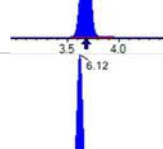
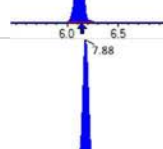
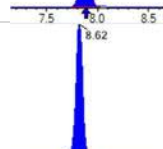

NEtFOSE	0.400	0.396	-1.0	30.00
HFPO-DA	0.200	0.196	-2.0	30.00
ADONA	0.189	0.188	-0.4	30.00
PFEESA	0.178	0.177	-0.4	30.00
PFMPA	0.200	0.207	3.3	30.00
PFMBA	0.200	0.176	-12.0	30.00
NFDHA	0.200	0.221	10.3	30.00
9CL-PF3ONS	0.187	0.189	0.9	30.00
11CL-PF3OUDS	0.189	0.192	1.7	30.00
3:3FTCA	0.400	0.386	-3.4	30.00
5:3FTCA	0.400	0.516	29.0	30.00
7:3FTCA	0.400	0.359	-10.3	30.00

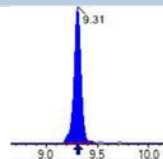
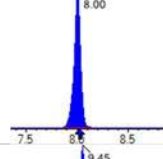
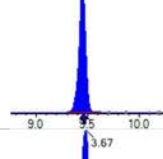
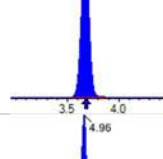
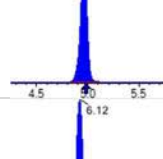
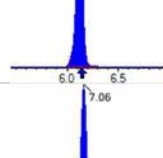
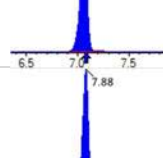
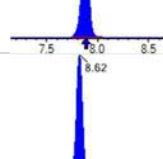
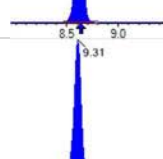
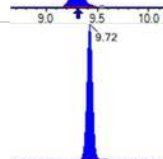

* Values outside of QC limits

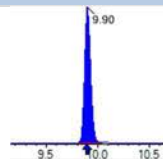
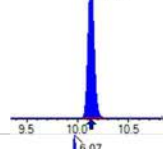
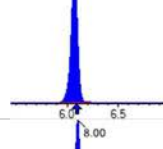
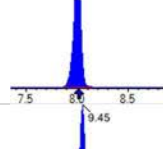
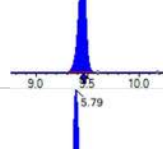
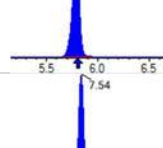
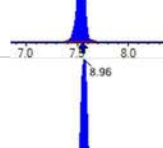
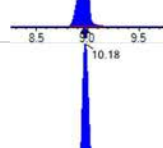
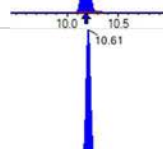
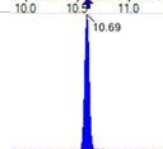
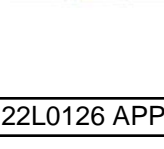
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 134887	(3.67 , 1.00) (0.00 , N/A , 0.0)	109.9	N/A 0.0 0.0	0.5395 [0.4000]	134.9%			QC,
PFPeA	(263.0 / 219.0) 63485 (263.0 / 69.0) 695	(4.96 , 1.00) (0.00 , N/A , -1.0)	221.3 21.8	0.0110 101.5 103.2	0.2073 [0.2000]	103.7%			
PFHxA	(313.0 / 269.0) 35347 (313.0 / 119.0) 4984	(6.12 , 1.00) (-0.01 , N/A , -0.1)	85.0 35.6	0.1410 156.7 163.2	0.0952 [0.1000]	95.2%			IR2,
PFHpA	(363.0 / 319.0) 38125 (363.0 / 169.0) 11892	(7.06 , 1.00) (0.00 , N/A , -0.3)	96.1 2973.7	0.3119 102.5 104.9	0.1028 [0.1000]	102.8%			
PFOA	(413.0 / 369.0) 43933 (413.0 / 169.0) 12665	(7.88 , 1.00) (0.00 , N/A , 0.0)	169.1 103.0	0.2883 85.8 92.0	0.1117 [0.1000]	111.7%			
PFNA	(463.0 / 419.0) 29106 (463.0 / 169.0) 7125	(8.63 , 1.00) (0.01 , N/A , 0.5)	96.9 125.1	0.2448 117.1 116.1	0.0950 [0.1000]	95.0%			
PFDA	(513.0 / 469.0) 42365 (513.0 / 169.0) 3980	(9.32 , 1.00) (0.01 , N/A , -1.0)	92.3 52.1	0.0939 105.4 119.2	0.1074 [0.1000]	107.4%			
PFUnA	(563.0 / 519.0) 52405 (563.0 / 169.0) 3472	(9.72 , 1.00) (0.00 , N/A , -0.6)	180.7 92.3	0.0662 62.9 57.8	0.1183 [0.1000]	118.3%			
PFDoA	(613.0 / 569.0) 58142 (613.0 / 169.0) 7848	(9.90 , 1.00) (0.00 , N/A , -0.8)	304.2 147.2	0.1350 105.1 101.2	0.0989 [0.1000]	98.9%			
PFTTrDA	(663.0 / 619.0) 39722 (663.0 / 169.0) 7343	(10.02 , 1.01) (N/A , 0.00 , -0.9)	154.4 70.6	0.1849 81.0 88.2	0.0800 [0.1000]	80.0%			
PFTeDA	(713.0 / 669.0) 37837 (713.0 / 169.0) 4643	(10.14 , 1.00) (0.01 , N/A , 0.8)	128.8 38.7	0.1227 58.8 66.6	0.1016 [0.1000]	101.6%			

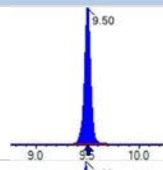
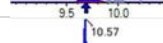
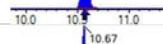


Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 54014 (299.0 / 99.0) 34812	(6.07 , 1.00) (0.00 , N/A , 0.0)	377.0 153.5	0.6445 96.7 108.3	0.0850 [0.0885]	96.0%			
PFPeS	(349.0 / 80.0) 81244 (349.0 / 99.0) 32489	(7.12 , 0.89) (N/A , -0.01 , 0.1)	296.2 182.6	0.3999 108.6 105.4	0.0869 [0.0938]	92.6%			
PFHxS	(399.0 / 80.0) 83651 (399.0 / 99.0) 28205	(8.00 , 1.00) (0.00 , N/A , 0.2)	307.5 195.0	0.3372 105.4 106.6	0.0978 [0.0911]	107.3%			
PFHpS	(449.0 / 80.0) 73898 (449.0 / 99.0) 21543	(8.78 , 0.93) (N/A , 0.00 , 0.2)	284.7 188.9	0.2915 109.6 107.1	0.0954 [0.0951]	100.3%			
PFOS	(499.0 / 80.0) 104806 (499.0 / 99.0) 17913	(9.45 , 1.00) (0.00 , N/A , 0.2)	82.3 753.5	0.1709 74.8 75.9	0.1109 [0.0927]	119.6%			
PFNS	(549.0 / 80.0) 101005 (549.0 / 99.0) 22881	(9.77 , 1.03) (N/A , 0.00 , 0.1)	172.5 78.8	0.2265 96.4 96.1	0.1073 [0.0960]	111.8%			
PFDS	(599.0 / 80.0) 125191 (599.0 / 99.0) 36806	(9.92 , 1.05) (N/A , 0.00 , -0.1)	285.1 512.3	0.2940 131.2 122.2	0.1087 [0.0963]	112.9%			
PFDoS	(699.0 / 80.0) 48369 (699.0 / 99.0) 10972	(10.12 , 1.07) (N/A , 0.01 , 1.1)	289.2 78.8	0.2268 110.8 112.5	0.1052 [0.0970]	108.5%			
4:2FTS	(327.0 / 307.0) 141954 (327.0 / 81.0) 88928	(5.79 , 1.00) (0.00 , N/A , -0.1)	525.2 151.5	0.6265 97.1 104.2	0.3885 [0.3738]	103.9%			
6:2FTS	(427.0 / 407.0) 91248 (427.0 / 81.0) 71343	(7.54 , 1.00) (0.00 , N/A , 0.4)	165.8 214.0	0.7819 110.6 114.0	0.4448 [0.3796]	117.2%			
8:2FTS	(527.0 / 507.0) 68741 (527.0 / 81.0) 49665	(8.96 , 1.00) (0.00 , N/A , 0.0)	372.3 119.3	0.7225 102.9 97.2	0.3630 [0.3833]	94.7%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 120169 (498.0 / 478.0) 1078	(10.18 , 1.00) (0.00 , N/A , 0.6)	214.4 892.4	0.0090 56.3 35.7	0.1031 [0.1000]	103.1%			
NMeFOSA	(512.0 / 219.0) 91955 (512.0 / 169.0) 59923	(10.61 , 1.00) (0.00 , N/A , -0.1)	536.9 398.3	0.6517 95.8 97.3	0.4572 [0.4000]	114.3%			
NEIFOSA	(526.0 / 219.0) 86288 (526.0 / 169.0) 89759	(10.70 , 1.00) (0.00 , N/A , 0.1)	574.9 357.5	1.0402 103.6 100.9	0.4019 [0.4000]	100.5%			
NMeFOSAA	(570.0 / 419.0) 22114 (570.0 / 483.0) 9473	(9.50 , 1.00) (0.01 , N/A , -0.6)	82.7 18590.9	0.4284 85.8 82.8	0.1274 [0.1000]	127.4%			
NEIFOSAA	(584.0 / 419.0) 16037 (584.0 / 526.0) 12046	(9.68 , 1.00) (0.00 , N/A , -0.3)	101.1 13019.3	0.7512 125.0 136.6	0.1061 [0.1000]	106.1%			
NMeFOSE	(616.0 / 59.0) 19199	(10.58 , 1.00) (0.01 , N/A , 0.0)	211.7	N/A 0.0 0.0	0.3982 [0.4000]	99.5%			
NEtFOSE	(630.0 / 59.0) 2750	(10.67 , 1.00) (0.00 , N/A , 0.0)	81.0	N/A 0.0 0.0	0.3960 [0.4000]	99.0%			
HFPO-DA	(285.0 / 169.0) 29901 (285.0 / 185.0) 78716	(6.47 , 1.00) (0.00 , N/A , 0.0)	308.2 307.7	2.6325 95.6 98.5	0.1960 [0.2000]	98.0%			
ADONA	(377.0 / 85.0) 122985 (377.0 / 251.0) 15316	(7.38 , 1.14) (N/A , -0.01 , -0.1)	486.8 51.5	0.1245 108.2 112.8	0.1883 [0.1885]	99.9%			
9CI-Pf3ONS	(531.0 / 351.0) 323386 (533.0 / 353.0) 99993	(9.72 , 1.50) (N/A , 0.00 , -0.1)	322.6 235.0	0.3092 96.6 98.5	0.1887 [0.1867]	101.1%			
11CI-PF3OUDS	(631.0 / 451.0) 172201 (633.0 / 453.0) 52016	(10.01 , 1.55) (N/A , 0.01 , 0.6)	789.3 377.6	0.3021 103.2 84.8	0.1922 [0.1886]	101.9%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 4140 (241.0 / 117.0) 5679	(4.45, 0.90) (N/A, -0.02, -0.1)	110.3 21.3	1.3719 100.5 102.4	0.3863 [0.4000]	96.6%			
5:3FTCA	(341.0 / 236.7) 29374 (341.0 / 217.0) 36837	(6.77, 1.11) (N/A, -0.01, 0.1)	179.0 91.7	1.2541 75.4 77.8	0.5159 [0.4000]	129.0%			
7:3FTCA	(441.0 / 317.0) 25176 (441.0 / 337.0) 28460	(8.59, 1.40) (N/A, 0.00, 0.6)	94.4 206.9	1.1304 135.2 131.5	0.3589 [0.4000]	89.7%			
PFEESA	(315.0 / 135.0) 65570 (315.0 / 83.0) 20381	(6.57, 1.07) (N/A, -0.02, -0.4)	369.7 78.9	0.3108 100.9 100.6	0.1773 [0.1785]	99.4%			
PFMPA	(229.0 / 85.0) 19198	(4.17, 0.84) (N/A, -0.01, 0.0)	259.8	N/A 0.0 0.0	0.2066 [0.2000]	103.3%			
PFMBA	(279.0 / 85.0) 42825	(5.35, 1.08) (N/A, -0.02, 0.0)	342.3	N/A 0.0 0.0	0.1760 [0.2000]	88.0%			
NFDHA	(295.0 / 201.0) 39156 (295.0 / 85.0) 36211	(6.00, 0.98) (N/A, -0.02, -0.1)	302.7 263.9	0.9248 106.5 103.1	0.2206 [0.2000]	110.3%			
13C3_PFBA_IIS	(216.0 / 172.0) 267976	(3.67, N/A) (N/A, -0.01, N/A)	572.9	N/A	0.9913 [1.0000]	99.1% { 93.2% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 367562	(6.12, N/A) (N/A, -0.01, N/A)	658.8	N/A	0.9255 [1.0000]	92.6% { 89.7% }			
13C4_PFOA_IIS	(417.0 / 372.0) 374305	(7.88, N/A) (N/A, -0.01, N/A)	499.2	N/A	0.9370 [1.0000]	93.7% { 95.6% }			
13C5_PFNA_IIS	(468.0 / 423.0) 299703	(8.62, N/A) (N/A, -0.01, N/A)	486.7	N/A	0.9067 [1.0000]	90.7% { 87.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 333458	(9.31 , N/A) (N/A , 0.00 , N/A)	285.9	N/A	0.9339 [1.0000]	93.4% { 92.0% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 592209	(8.00 , N/A) (N/A , -0.01 , N/A)	703.2	N/A	0.8491 [1.0000]	84.9% { 90.1% }			
13C4_PFOS_IIS	(503.0 / 79.9) 647807	(9.45 , N/A) (N/A , 0.00 , N/A)	315.8	N/A	0.9394 [1.0000]	93.9% { 95.9% }			
13C4_PFBA_EIS	(217.0 / 172.0) 2385119	(3.67 , N/A) (N/A , 0.00 , N/A)	654.1	N/A	8.2825 [8.0000]	103.5% { 101.0% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1433537	(4.96 , N/A) (N/A , -0.01 , N/A)	626.0	N/A	4.2677 [4.0000]	106.7% { 100.8% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 814972	(6.12 , N/A) (N/A , -0.02 , N/A)	506.7	N/A	1.9934 [2.0000]	99.7% { 86.0% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 774731	(7.06 , N/A) (N/A , -0.01 , N/A)	574.7	N/A	2.1209 [2.0000]	106.0% { 96.7% }			
13C8_PFOA_EIS	(421.0 / 376.0) 846784	(7.88 , N/A) (N/A , -0.01 , N/A)	519.7	N/A	2.0645 [2.0000]	103.2% { 103.5% }			
13C9_PFNA_EIS	(472.0 / 427.0) 338235	(8.62 , N/A) (N/A , -0.01 , N/A)	388.5	N/A	1.0252 [1.0000]	102.5% { 90.3% }			
13C6_PFDA_EIS	(519.0 / 474.0) 442845	(9.31 , N/A) (N/A , 0.00 , N/A)	298.7	N/A	1.0152 [1.0000]	101.5% { 104.9% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 559601	(9.72 , N/A) (N/A , 0.00 , N/A)	436.0	N/A	1.0586 [1.0000]	105.9% { 87.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 685640	(9.90 , N/A) (N/A , 0.00 , N/A)	760.4	N/A	1.1784 [1.0000]	117.8% { 108.7% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 410063	(10.13 , N/A) (N/A , 0.00 , N/A)	1004.4	N/A	1.0677 [1.0000]	106.8% { 92.7% }			
13C3_PFBs_EIS	(302.0 / 80.0) 2279780	(6.07 , N/A) (N/A , -0.02 , N/A)	533.2	N/A	2.2861 [2.0000]	114.3% { 105.8% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1113383	(8.00 , N/A) (N/A , -0.01 , N/A)	695.3	N/A	2.1034 [2.0000]	105.2% { 98.8% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1628808	(9.45 , N/A) (N/A , -0.01 , N/A)	415.2	N/A	1.9414 [2.0000]	97.1% { 88.2% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 512280	(5.79 , N/A) (N/A , -0.01 , N/A)	663.1	N/A	4.3621 [4.0000]	109.1% { 95.8% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 599546	(7.54 , N/A) (N/A , -0.01 , N/A)	714.0	N/A	4.1081 [4.0000]	102.7% { 88.2% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 562235	(8.96 , N/A) (N/A , -0.01 , N/A)	507.8	N/A	3.9076 [4.0000]	97.7% { 77.7% }			
13C8_PFOA_EIS	(506.0 / 78.0) 2429698	(10.18 , N/A) (N/A , 0.00 , N/A)	894.3	N/A	2.1782 [2.0000]	108.9% { 96.7% }			
D3_NMeFOA_EIS	(515.0 / 169.0) 462442	(10.61 , N/A) (N/A , 0.00 , N/A)	927.3	N/A	2.1378 [2.0000]	106.9% { 100.3% }			
D5_NEtFOA_EIS	(531.0 / 169.0) 467162	(10.69 , N/A) (N/A , 0.00 , N/A)	1418.7	N/A	2.4237 [2.0000]	121.2% { 94.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 836265	(9.50 , N/A) (N/A , 0.00 , N/A)	436.5	N/A	3.6437 [4.0000]	91.1% { 83.8% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 697196	(9.68 , N/A) (N/A , 0.00 , N/A)	337.3	N/A	3.5467 [4.0000]	88.7% { 96.5% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 854180	(10.57 , N/A) (N/A , 0.00 , N/A)	1050.2	N/A	24.6463 [20.0000]	123.2% { 88.9% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 366383	(10.67 , N/A) (N/A , 0.00 , N/A)	1240.6	N/A	26.1410 [20.0000]	130.7% { 87.5% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1987852	(6.47 , N/A) (N/A , -0.01 , N/A)	663.2	N/A	8.7560 [8.0000]	109.4% { 95.9% }			

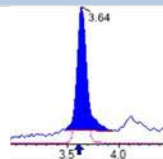
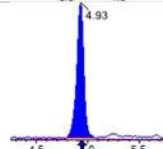
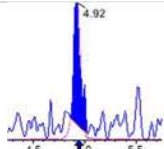
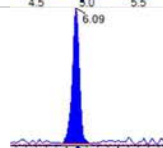
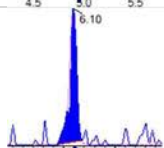
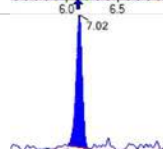
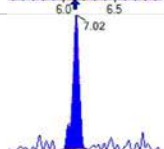
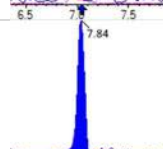
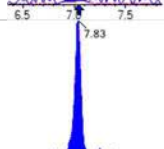
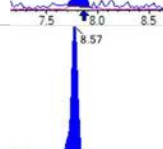
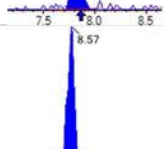
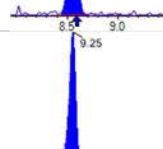
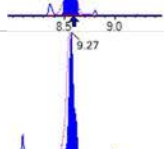
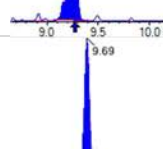
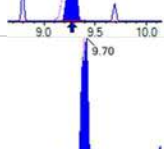
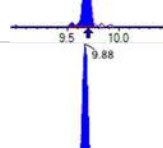
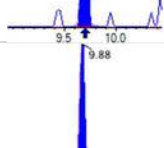
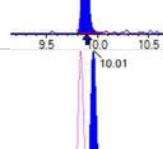
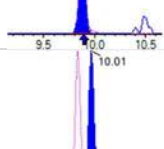
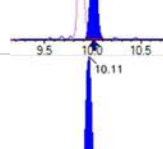
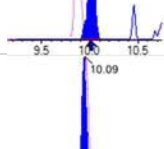
LOW-CONCENTRATION CALIBRATION VERIFICATION**EPA 1633****Laboratory:** APPL, LLC**SDG:****Client:** AECOM**Project:** Red Hill AFFF Assessment Sampling**Calibration:** 2253011**Laboratory ID:** SB04022-LCV1**Sequence:** SB04022**Standard ID:** 22L0444

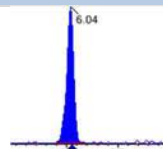
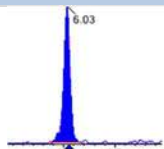
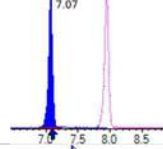
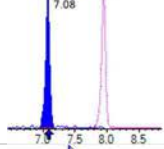
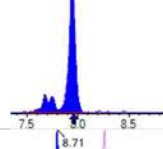
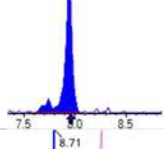
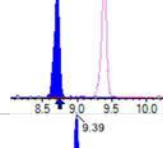
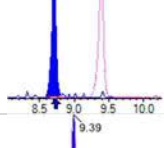
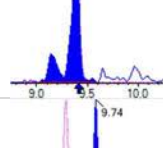
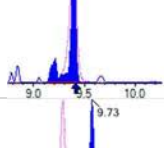
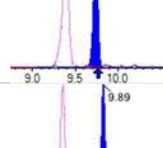
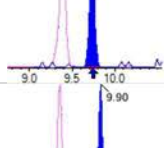
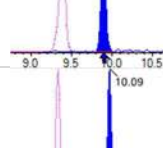
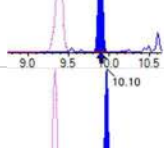
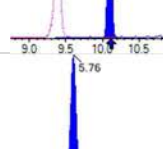
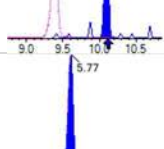
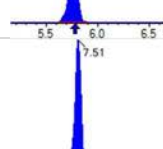
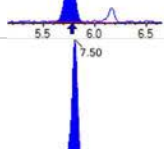
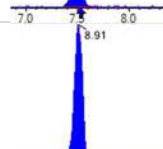
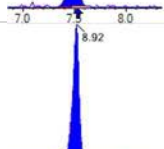

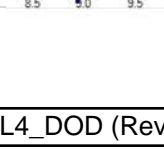
ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
PFBA	0.400	0.430	7.6	30.00
PFPEA	0.200	0.194	-3.1	30.00
PFHXA	0.100	0.0992	-0.8	30.00
PFHPA	0.100	0.0812	-18.8	30.00
PFOA	0.100	0.0914	-8.6	30.00
PFNA	0.100	0.0976	-2.4	30.00
PFDA	0.100	0.142	41.9 *	30.00
PFDA	0.100	0.142	41.9 *	30.00
PFUnA	0.100	0.0999	-0.1	30.00
PFDOA	0.100	0.122	21.7	30.00
PFTRDA	0.100	0.104	3.8	30.00
PFTEDA	0.100	0.0896	-10.4	30.00
PFBS	0.0885	0.0812	-8.3	30.00
PFPEs	0.0940	0.103	9.4	30.00
PFHXS	0.0915	0.0898	-1.9	30.00
PFHPS	0.0955	0.0863	-9.7	30.00
PFOS	0.0930	0.114	22.7	30.00
PFNS	0.0960	0.0917	-4.5	30.00
PFDS	0.0965	0.0788	-18.3	30.00
PFDOS	0.0970	0.110	13.3	30.00
4:2FTS	0.375	0.353	-5.9	30.00
6:2FTS	0.380	0.354	-6.9	30.00
8:2FTS	0.384	0.331	-13.8	30.00
PFOSA	0.100	0.0866	-13.4	30.00
NMeFOSA	0.400	0.378	-5.5	30.00
NEtFOSA	0.400	0.395	-1.3	30.00
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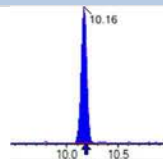
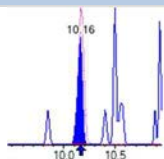
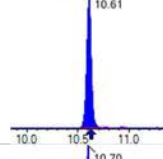
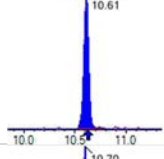
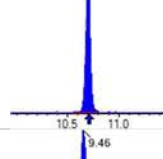
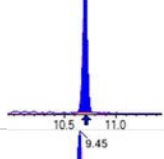
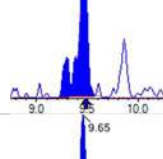
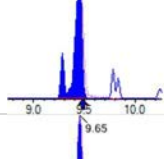
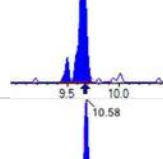
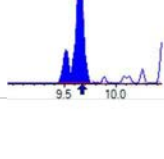
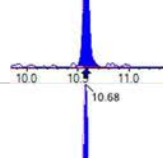
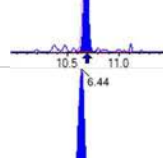
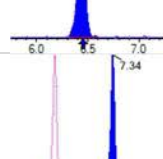
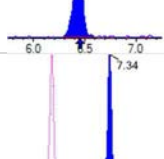
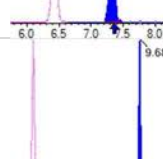
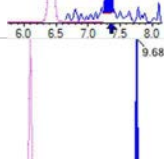
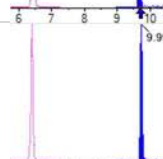
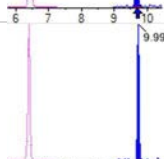

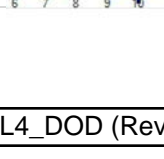
LOW-CONCENTRATION CALIBRATION VERIFICATION**EPA 1633****Laboratory:** APPL, LLC**SDG:****Client:** AECOM**Project:** Red Hill AFFF Assessment Sampling**Calibration:** 2253011**Laboratory ID:** SB04022-LCV1**Sequence:** SB04022**Standard ID:** 22L0444

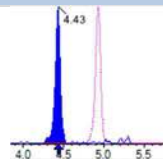
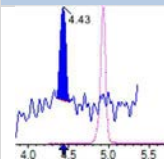
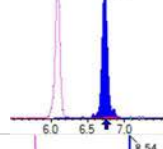
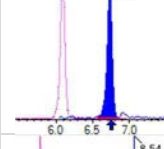
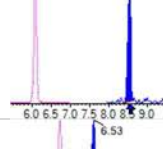
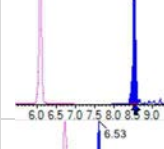
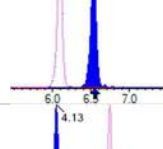
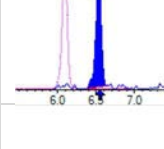
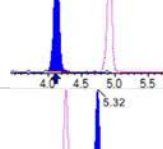
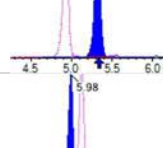
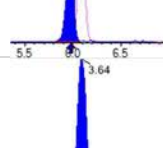
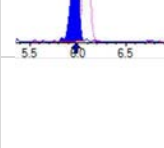
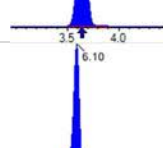
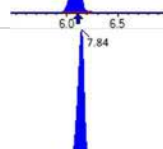
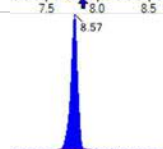
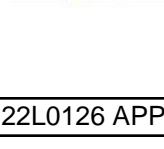
NMeFOSE	0.400	0.394	-1.6	30.00
NEtFOSE	0.400	0.414	3.4	30.00
HFPO-DA	0.200	0.221	10.5	30.00
ADONA	0.189	0.193	2.3	30.00
PFEESA	0.178	0.184	3.6	30.00
PFMPA	0.200	0.174	-12.9	30.00
PFMBA	0.200	0.193	-3.3	30.00
NFDHA	0.200	0.181	-9.4	30.00
9CL-PF3ONS	0.187	0.174	-6.9	30.00
11CL-PF3OUDS	0.189	0.212	11.9	30.00
3:3FTCA	0.400	0.432	8.0	30.00
5:3FTCA	0.400	0.369	-7.8	30.00
7:3FTCA	0.400	0.347	-13.2	30.00

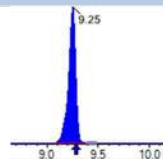
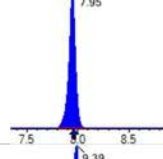
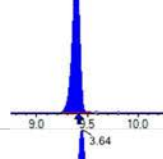
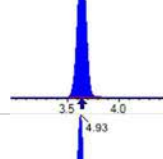
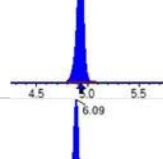
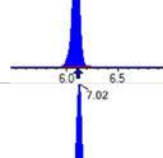
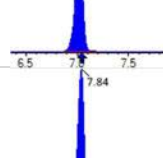
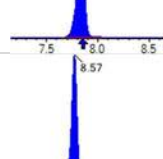
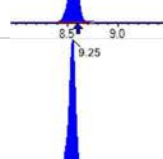
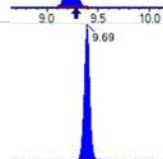

* Values outside of QC limits

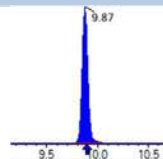
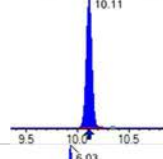
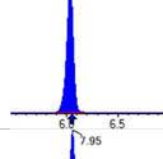
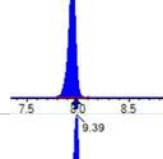
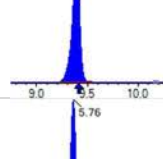
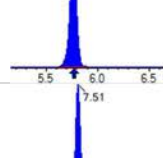
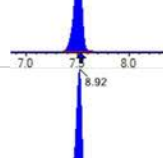
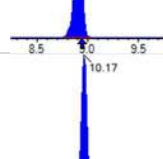
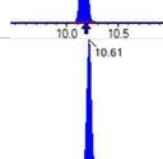
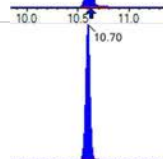
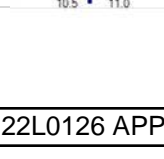
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 88731	(3.64 , 1.00) (0.00 , N/A , 0.0)	109.5	N/A 0.0 0.0	0.4304 [0.4000]	107.6%			
PFPeA	(263.0 / 219.0) 59701 (263.0 / 69.0) 974	(4.93 , 1.00) (0.00 , N/A , 0.7)	170.8 16.8	0.0163 157.9 152.4	0.1937 [0.2000]	96.9%			
PFHxA	(313.0 / 269.0) 41164 (313.0 / 119.0) 4228	(6.09 , 1.00) (0.00 , N/A , -0.5)	96.3 30.8	0.1027 105.5 112.3	0.0992 [0.1000]	99.2%			
PFHpA	(363.0 / 319.0) 32496 (363.0 / 169.0) 8726	(7.02 , 1.00) (0.00 , N/A , 0.1)	85.4 39.5	0.2685 93.9 95.4	0.0812 [0.1000]	81.2%			
PFOA	(413.0 / 369.0) 40354 (413.0 / 169.0) 13737	(7.84 , 1.00) (0.00 , N/A , 0.1)	90.5 89.1	0.3404 112.1 101.3	0.0914 [0.1000]	91.4%			
PFNA	(463.0 / 419.0) 30934 (463.0 / 169.0) 6117	(8.57 , 1.00) (0.00 , N/A , 0.1)	114.9 257.4	0.1978 93.4 99.0	0.0976 [0.1000]	97.6%			
PFDA	(513.0 / 469.0) 57666 (513.0 / 169.0) 3837	(9.25 , 1.00) (0.00 , N/A , -0.9)	129.9 260.2	0.0665 72.2 73.2	0.1419 [0.1000]	141.9%			QC,
PFUnA	(563.0 / 519.0) 51280 (563.0 / 169.0) 5367	(9.69 , 1.00) (0.00 , N/A , -0.5)	185.9 45.4	0.1047 136.1 106.5	0.0999 [0.1000]	99.9%			
PFDoA	(613.0 / 569.0) 59611 (613.0 / 169.0) 10034	(9.88 , 1.00) (0.00 , N/A , -0.2)	180.9 73.6	0.1683 125.0 127.1	0.1217 [0.1000]	121.7%			
PFTTrDA	(663.0 / 619.0) 44368 (663.0 / 169.0) 8644	(10.01 , 1.01) (N/A , -0.01 , -0.5)	184.2 61.7	0.1948 89.4 99.9	0.1038 [0.1000]	103.8%			
PFTeDA	(713.0 / 669.0) 36288 (713.0 / 169.0) 6268	(10.11 , 1.00) (0.00 , N/A , 1.0)	121.7 31.4	0.1727 87.5 93.7	0.0896 [0.1000]	89.6%			

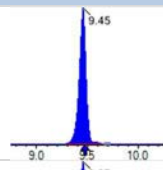




Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 56638 (299.0 / 99.0) 35422	(6.04 , 1.00) (0.00 , N/A , 0.4)	209.0 181.6	0.6254 95.2 103.1	0.0812 [0.0885]	91.8%			
PFPeS	(349.0 / 80.0) 107742 (349.0 / 99.0) 35020	(7.07 , 0.89) (N/A , -0.02 , -0.2)	359.0 181.4	0.3250 87.7 95.3	0.1028 [0.0938]	109.5%			
PFHxS	(399.0 / 80.0) 82877 (399.0 / 99.0) 27590	(7.94 , 1.00) (0.00 , N/A , 0.1)	267.9 229.1	0.3329 102.1 106.5	0.0898 [0.0911]	98.5%			
PFHpS	(449.0 / 80.0) 70957 (449.0 / 99.0) 17454	(8.71 , 0.93) (N/A , -0.02 , 0.4)	247.5 122.1	0.2460 94.4 95.7	0.0863 [0.0951]	90.7%			
PFOS	(499.0 / 80.0) 108016 (499.0 / 99.0) 13356	(9.39 , 1.00) (0.00 , N/A , -0.3)	229.3 150.9	0.1236 59.4 51.8	0.1141 [0.0927]	123.0%			
PFNS	(549.0 / 80.0) 98353 (549.0 / 99.0) 25207	(9.74 , 1.04) (N/A , -0.01 , 0.5)	247.4 84.0	0.2563 107.7 94.7	0.0917 [0.0960]	95.5%			
PFDS	(599.0 / 80.0) 102245 (599.0 / 99.0) 28697	(9.89 , 1.05) (N/A , -0.01 , -0.2)	175.9 109.9	0.2807 106.7 119.7	0.0788 [0.0963]	81.8%			
PFDoS	(699.0 / 80.0) 67135 (699.0 / 99.0) 16370	(10.09 , 1.07) (N/A , -0.01 , -0.1)	358.0 105.8	0.2438 124.4 107.8	0.1099 [0.0970]	113.3%			
4:2FTS	(327.0 / 307.0) 176146 (327.0 / 81.0) 94733	(5.76 , 1.00) (0.00 , N/A , -0.2)	651.2 153.8	0.5378 75.1 97.2	0.3529 [0.3738]	94.4%			
6:2FTS	(427.0 / 407.0) 101195 (427.0 / 81.0) 72657	(7.51 , 1.00) (0.00 , N/A , 0.3)	371.8 228.1	0.7180 97.1 86.4	0.3538 [0.3796]	93.2%			
8:2FTS	(527.0 / 507.0) 93025 (527.0 / 81.0) 64711	(8.91 , 1.00) (-0.01 , N/A , -0.4)	232.4 218.3	0.6956 113.7 94.0	0.3311 [0.3833]	86.4%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 112228 (498.0 / 478.0) 1101	(10.16 , 1.00) (0.00 , N/A , 0.4)	369.0 13.1	0.0098 47.0 50.4	0.0866 [0.1000]	86.6%			
NMeFOSA	(512.0 / 219.0) 70143 (512.0 / 169.0) 48074	(10.61 , 1.00) (0.00 , N/A , -0.2)	653.4 271.4	0.6854 99.0 97.1	0.3778 [0.4000]	94.5%			
NEIFOSA	(526.0 / 219.0) 72686 (526.0 / 169.0) 72850	(10.70 , 1.00) (0.00 , N/A , 0.0)	596.5 371.2	1.0023 101.0 91.5	0.3949 [0.4000]	98.7%			
NMeFOSAA	(570.0 / 419.0) 25662 (570.0 / 483.0) 9027	(9.46 , 1.00) (0.01 , N/A , 1.0)	41.2 19780.9	0.3518 63.2 70.8	0.1059 [0.1000]	105.9%			
NEIFOSAA	(584.0 / 419.0) 20215 (584.0 / 526.0) 13788	(9.65 , 1.00) (0.00 , N/A , 0.2)	211.8 131.1	0.6821 115.0 115.8	0.0876 [0.1000]	87.6%			
NMeFOSE	(616.0 / 59.0) 22382	(10.58 , 1.00) (0.01 , N/A , 0.0)	125.8	N/A 0.0 0.0	0.3937 [0.4000]	98.4%			
NEiFOSE	(630.0 / 59.0) 4100	(10.68 , 1.00) (0.01 , N/A , 0.0)	127.7	N/A 0.0 0.0	0.4136 [0.4000]	103.4%			
HFPO-DA	(285.0 / 169.0) 36506 (285.0 / 185.0) 79339	(6.44 , 1.00) (0.00 , N/A , 0.0)	386.2 316.2	2.1733 84.8 80.9	0.2209 [0.2000]	110.5%			
ADONA	(377.0 / 85.0) 127252 (377.0 / 251.0) 13745	(7.34 , 1.14) (N/A , -0.02 , 0.2)	488.1 49.4	0.1080 87.8 91.1	0.1933 [0.1885]	102.5%			
9CI-Pf3ONS	(531.0 / 351.0) 313028 (533.0 / 353.0) 101048	(9.68 , 1.51) (N/A , -0.01 , 0.1)	271.1 170.0	0.3228 102.2 98.1	0.1741 [0.1867]	93.3%			
11CI-PF3OUDS	(631.0 / 451.0) 215311 (633.0 / 453.0) 68768	(9.99 , 1.55) (N/A , -0.01 , 0.0)	302.1 192.5	0.3194 103.1 96.3	0.2116 [0.1886]	112.1%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 4575 (241.0 / 117.0) 3829	(4.43 , 0.90) (N/A , 0.00 , -0.2)	138.3 18.9	0.8370 63.6 64.0	0.4319 [0.4000]	108.0%			
5:3FTCA	(341.0 / 236.7) 23418 (341.0 / 217.0) 39354	(6.73 , 1.11) (N/A , -0.01 , 0.0)	187.0 170.7	1.6805 93.6 108.8	0.3688 [0.4000]	92.2%			
7:3FTCA	(441.0 / 317.0) 28724 (441.0 / 337.0) 21138	(8.54 , 1.40) (N/A , -0.02 , 0.2)	107.9 139.4	0.7359 89.3 86.6	0.3473 [0.4000]	86.8%			
PFEESA	(315.0 / 135.0) 70212 (315.0 / 83.0) 20558	(6.53 , 1.07) (N/A , -0.01 , -0.1)	306.4 105.4	0.2928 96.0 98.6	0.1843 [0.1785]	103.3%			
PFMPA	(229.0 / 85.0) 15670	(4.13 , 0.84) (N/A , 0.00 , 0.0)	233.2	N/A 0.0 0.0	0.1741 [0.2000]	87.1%			
PFMBA	(279.0 / 85.0) 49621	(5.32 , 1.08) (N/A , -0.01 , 0.0)	391.2	N/A 0.0 0.0	0.1933 [0.2000]	96.7%			
NFDHA	(295.0 / 201.0) 36917 (295.0 / 85.0) 32981	(5.98 , 0.98) (N/A , 0.00 , 0.3)	387.5 188.8	0.8934 104.0 101.6	0.1813 [0.2000]	90.6%			
13C3_PFBa_IIS	(216.0 / 172.0) 213015	(3.64 , N/A) (N/A , 0.01 , N/A)	705.5	N/A	0.9891 [1.0000]	98.9% { 105.4% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 407338	(6.10 , N/A) (N/A , -0.01 , N/A)	461.1	N/A	1.0730 [1.0000]	107.3% { 104.5% }			
13C4_PFOA_IIS	(417.0 / 372.0) 367661	(7.84 , N/A) (N/A , -0.02 , N/A)	455.2	N/A	1.0185 [1.0000]	101.9% { 95.8% }			
13C5_PFNA_IIS	(468.0 / 423.0) 297816	(8.57 , N/A) (N/A , -0.02 , N/A)	374.1	N/A	1.0128 [1.0000]	101.3% { 102.1% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (Δ RT-[min], Δ RT- CV[min], Δ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 348377	(9.25 , N/A) (N/A , -0.02 , N/A)	330.0	N/A	1.0227 [1.0000]	102.3% { 100.0% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 632607	(7.95 , N/A) (N/A , -0.02 , N/A)	762.3	N/A	1.0455 [1.0000]	104.5% { 99.9% }			
13C4_PFOS_IIS	(503.0 / 79.9) 614614	(9.39 , N/A) (N/A , -0.02 , N/A)	361.4	N/A	0.9532 [1.0000]	95.3% { 96.7% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1765062	(3.64 , N/A) (N/A , 0.01 , N/A)	646.5	N/A	8.2533 [8.0000]	103.2% { 113.5% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1298140	(4.93 , N/A) (N/A , -0.01 , N/A)	553.0	N/A	4.2242 [4.0000]	105.6% { 105.8% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 836125	(6.09 , N/A) (N/A , -0.01 , N/A)	615.8	N/A	2.0059 [2.0000]	100.3% { 103.9% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 764163	(7.02 , N/A) (N/A , -0.02 , N/A)	497.2	N/A	2.1103 [2.0000]	105.5% { 98.6% }			
13C8_PFOA_EIS	(421.0 / 376.0) 828991	(7.84 , N/A) (N/A , -0.02 , N/A)	454.3	N/A	2.2038 [2.0000]	110.2% { 112.6% }			
13C9_PFNA_EIS	(472.0 / 427.0) 328275	(8.57 , N/A) (N/A , -0.02 , N/A)	518.1	N/A	1.0609 [1.0000]	106.1% { 103.0% }			
13C6_PFDA_EIS	(519.0 / 474.0) 409756	(9.25 , N/A) (N/A , -0.02 , N/A)	444.1	N/A	0.9737 [1.0000]	97.4% { 107.2% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 562529	(9.69 , N/A) (N/A , -0.02 , N/A)	388.4	N/A	1.0870 [1.0000]	108.7% { 103.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 510972	(9.87, N/A) (N/A, -0.01, N/A)	524.5	N/A	0.9894 [1.0000]	98.9% { 88.3% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 400485	(10.11, N/A) (N/A, -0.01, N/A)	1061.2	N/A	1.2239 [1.0000]	122.4% { 105.9% }			
13C3_PFBs_EIS	(302.0 / 80.0) 2187264	(6.03, N/A) (N/A, -0.01, N/A)	560.8	N/A	2.2845 [2.0000]	114.2% { 111.2% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1065988	(7.95, N/A) (N/A, -0.02, N/A)	641.2	N/A	2.0562 [2.0000]	102.8% { 107.8% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1625779	(9.39, N/A) (N/A, -0.02, N/A)	376.8	N/A	2.1950 [2.0000]	109.8% { 105.9% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 587172	(5.76, N/A) (N/A, -0.01, N/A)	686.8	N/A	5.4283 [4.0000]	135.7% { 118.0% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 712693	(7.51, N/A) (N/A, -0.02, N/A)	759.8	N/A	4.9797 [4.0000]	124.5% { 122.4% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 720540	(8.92, N/A) (N/A, -0.02, N/A)	611.7	N/A	3.9939 [4.0000]	99.8% { 115.6% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 2234178	(10.17, N/A) (N/A, -0.01, N/A)	864.0	N/A	2.5844 [2.0000]	129.2% { 117.4% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 382213	(10.61, N/A) (N/A, -0.01, N/A)	720.1	N/A	2.3380 [2.0000]	116.9% { 102.9% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 371143	(10.70, N/A) (N/A, -0.01, N/A)	812.1	N/A	2.4787 [2.0000]	123.9% { 108.6% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 1068578	(9.45 , N/A) (N/A , -0.02 , N/A)	278.7	N/A	4.5853 [4.0000]	114.6% { 106.0% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 936763	(9.65 , N/A) (N/A , -0.02 , N/A)	116.3	N/A	5.0556 [4.0000]	126.4% { 104.8% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 931338	(10.57 , N/A) (N/A , -0.01 , N/A)	943.8	N/A	26.0758 [20.0000]	130.4% { 93.6% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 454690	(10.67 , N/A) (N/A , -0.01 , N/A)	958.4	N/A	27.6072 [20.0000]	138.0% { 96.7% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1904148	(6.43 , N/A) (N/A , -0.01 , N/A)	690.2	N/A	8.1659 [8.0000]	102.1% { 108.9% }			

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 1633

Laboratory: APPL, LLC

Work Order: 22L0126

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Instrument ID: Saphira

Calibration: 2253007

Standard ID: 22L0304

Sequence: SB03989

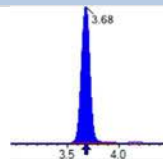
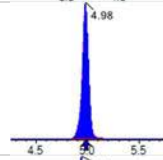
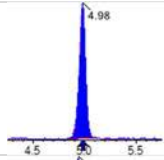
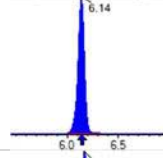
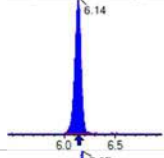
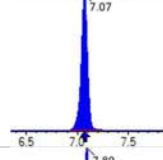
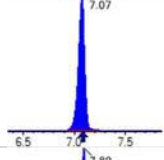
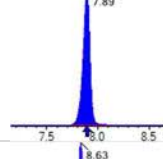
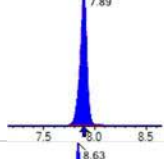
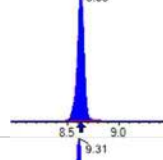
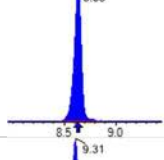
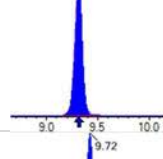
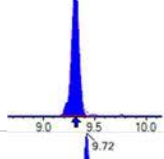
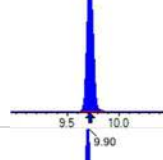
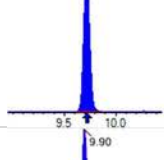
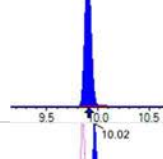
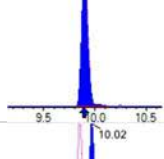
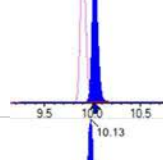
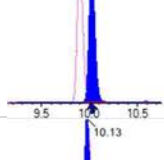
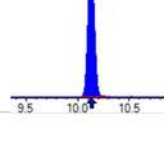
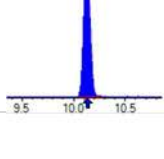
Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB03989-CCV1	PFBA	20.0	20.3	102	ng/mL	+/- 30.00%
	PFPEA	10.0	10.1	101	ng/mL	+/- 30.00%
	PFHXA	5.00	4.71	94.2	ng/mL	+/- 30.00%
	PFHPA	5.00	4.97	99.4	ng/mL	+/- 30.00%
	PFOA	5.00	5.36	107	ng/mL	+/- 30.00%
	PFNA	5.00	4.66	93.2	ng/mL	+/- 30.00%
	PFDA	5.00	5.43	109	ng/mL	+/- 30.00%
	PFUnA	5.00	4.16	83.3	ng/mL	+/- 30.00%
	PFDOA	5.00	4.95	99.0	ng/mL	+/- 30.00%
	PFTRDA	5.00	5.19	104	ng/mL	+/- 30.00%
	PFTEDA	5.00	4.86	97.3	ng/mL	+/- 30.00%
	PFBS	4.42	5.23	118	ng/mL	+/- 30.00%
	PFPEs	4.70	5.09	108	ng/mL	+/- 30.00%
	PFHXS	4.58	4.72	103	ng/mL	+/- 30.00%
	PFHPS	4.78	4.55	95.2	ng/mL	+/- 30.00%
	PFOS	4.65	3.96	85.2	ng/mL	+/- 30.00%
	PFNS	4.80	4.98	104	ng/mL	+/- 30.00%
	PFDS	4.82	4.52	93.9	ng/mL	+/- 30.00%
	PFDOS	4.85	5.37	111	ng/mL	+/- 30.00%
	4:2FTS	18.8	19.3	102	ng/mL	+/- 30.00%
	6:2FTS	19.0	18.6	97.8	ng/mL	+/- 30.00%
	8:2FTS	19.2	15.4	80.1	ng/mL	+/- 30.00%
	PFOSA	5.00	5.11	102	ng/mL	+/- 30.00%
	NMeFOSA	20.0	22.7	114	ng/mL	+/- 30.00%
	NEtFOSA	20.0	19.6	97.8	ng/mL	+/- 30.00%
	NMeFOSAA	5.00	4.74	94.9	ng/mL	+/- 30.00%
	NEtFOSAA	5.00	6.25	125	ng/mL	+/- 30.00%
	NMeFOSE	20.0	19.4	97.2	ng/mL	+/- 30.00%
	NEtFOSE	20.0	19.1	95.3	ng/mL	+/- 30.00%
	HFPO-DA	10.0	9.46	94.6	ng/mL	+/- 30.00%

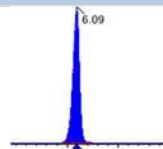
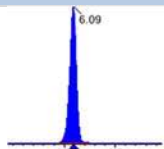
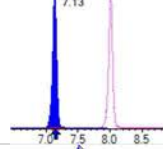
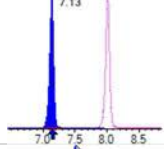
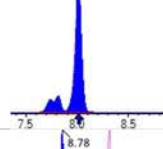
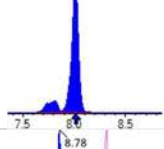
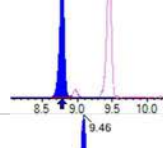
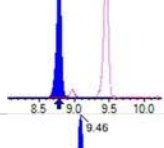
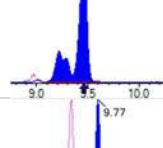
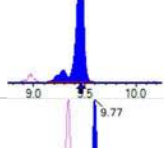
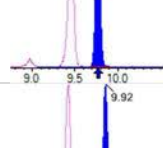
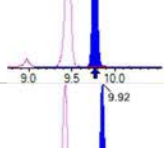
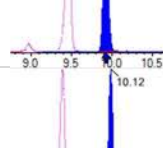
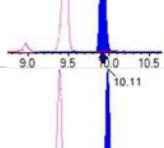
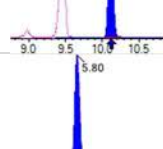
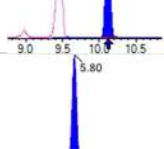
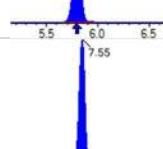
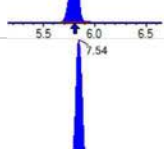
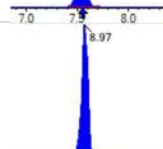
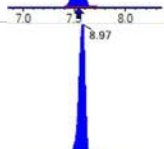

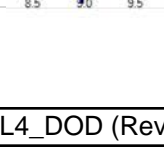
INITIAL AND CONTINUING CALIBRATION CHECK

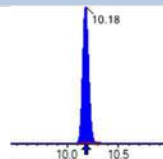
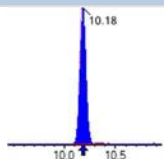
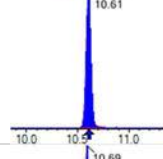
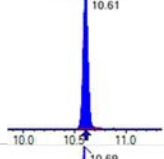
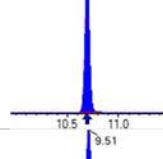
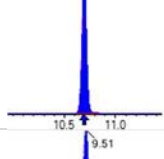
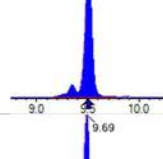
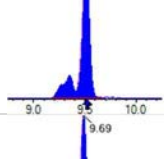
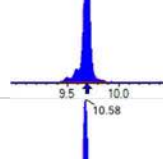
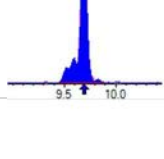
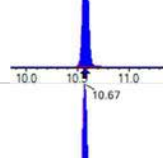
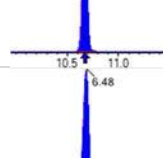
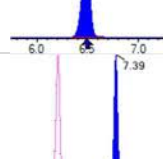
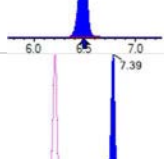
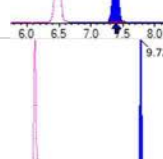
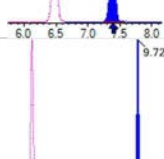
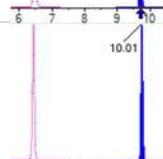
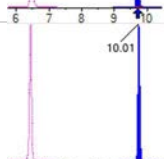

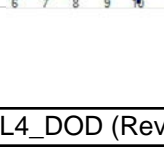
EPA 1633

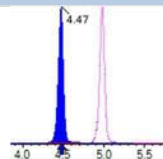
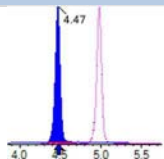
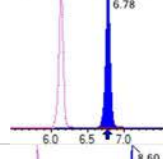
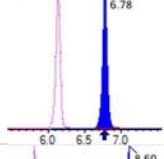
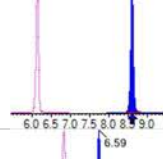
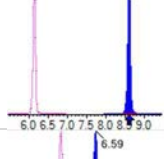
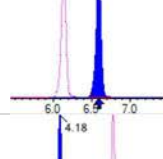
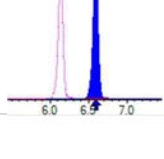
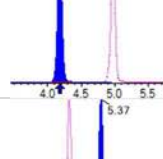
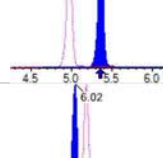
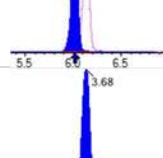
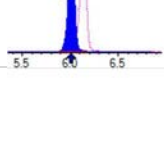
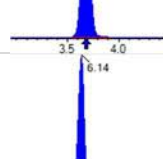
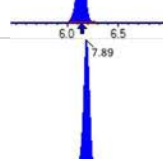
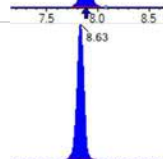

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Instrument ID:	Saphira	Calibration:	2253007
Standard ID:	22L0304	Sequence:	SB03989

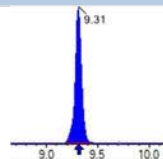
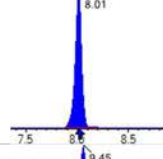
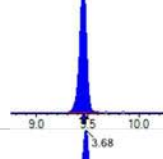
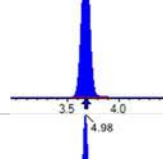
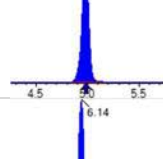
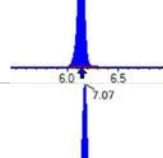
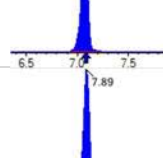
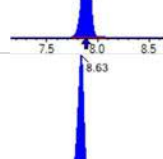
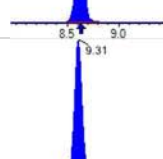
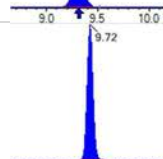

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB03989-CCV1	ADONA	9.45	9.37	99.2	ng/mL	+/- 30.00%
	PFEESA	8.90	7.71	86.6	ng/mL	+/- 30.00%
	PFMPA	10.0	10.1	101	ng/mL	+/- 30.00%
	PFMBA	10.0	10.1	101	ng/mL	+/- 30.00%
	NFDHA	10.0	9.55	95.5	ng/mL	+/- 30.00%
	9CL-PF3ONS	9.35	9.04	96.7	ng/mL	+/- 30.00%
	11CL-PF3OUDS	9.45	9.20	97.3	ng/mL	+/- 30.00%
	3:3FTCA	20.0	19.9	99.5	ng/mL	+/- 30.00%
	5:3FTCA	20.0	19.2	95.8	ng/mL	+/- 30.00%
	7:3FTCA	20.0	19.3	96.5	ng/mL	+/- 30.00%

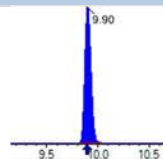
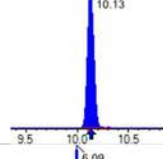
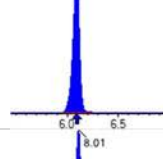
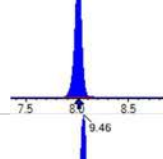
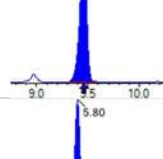
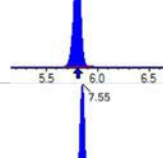
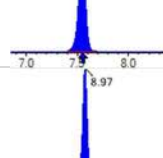
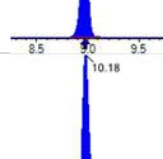
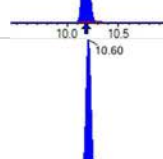
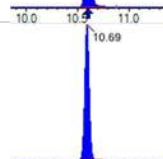

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 5025895	(3.68 , 1.00) (0.00 , N/A , 0.0)	644.0	N/A 0.0 0.0	20.3065 [20.0000]	101.5%			
PFPeA	(263.0 / 219.0) 3061018 (263.0 / 69.0) 32489	(4.98 , 1.00) (0.00 , N/A , -0.1)	602.6 331.1	0.0106 98.3 100.0	10.0754 [10.0000]	100.8%			
PFHxA	(313.0 / 269.0) 2033923 (313.0 / 119.0) 175693	(6.14 , 1.00) (0.00 , N/A , 0.2)	559.2 443.7	0.0864 96.0 100.0	4.7110 [5.0000]	94.2%			
PFHpA	(363.0 / 319.0) 1907103 (363.0 / 169.0) 566900	(7.07 , 1.00) (0.00 , N/A , -0.2)	593.8 425.6	0.2973 97.6 100.0	4.9706 [5.0000]	99.4%			
PFOA	(413.0 / 369.0) 2039133 (413.0 / 169.0) 638857	(7.89 , 1.00) (0.00 , N/A , 0.0)	683.1 517.1	0.3133 93.2 100.0	5.3642 [5.0000]	107.3%			
PFNA	(463.0 / 419.0) 1580877 (463.0 / 169.0) 333241	(8.63 , 1.00) (0.00 , N/A , -0.1)	488.2 306.4	0.2108 100.8 100.0	4.6602 [5.0000]	93.2%			
PFDA	(513.0 / 469.0) 2040428 (513.0 / 169.0) 160767	(9.31 , 1.00) (0.00 , N/A , 0.2)	520.5 337.5	0.0788 88.4 100.0	5.4275 [5.0000]	108.5%			
PFUnA	(563.0 / 519.0) 2112525 (563.0 / 169.0) 242223	(9.72 , 1.00) (0.00 , N/A , 0.2)	777.1 572.0	0.1147 108.8 100.0	4.1628 [5.0000]	83.3%			
PFDoA	(613.0 / 569.0) 2677273 (613.0 / 169.0) 356940	(9.90 , 1.00) (0.00 , N/A , 0.2)	730.5 398.3	0.1333 103.9 100.0	4.9515 [5.0000]	99.0%			
PFTTrDA	(663.0 / 619.0) 2371857 (663.0 / 169.0) 497035	(10.02 , 1.01) (N/A , 0.00 , -0.1)	465.7 519.6	0.2096 91.8 100.0	5.1898 [5.0000]	103.8%			
PFTeDA	(713.0 / 669.0) 1954114 (713.0 / 169.0) 360040	(10.13 , 1.00) (0.00 , N/A , 0.2)	1046.9 370.9	0.1842 88.2 100.0	4.8632 [5.0000]	97.3%			

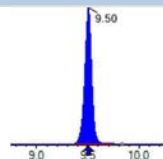
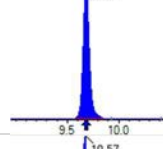
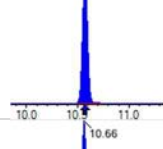
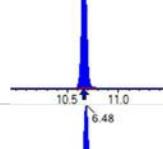
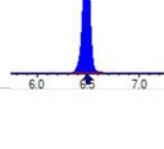
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 3146005 (299.0 / 99.0) 1871748	(6.09 , 1.00) (0.00 , N/A , 0.2)	617.6 554.6	0.5950 89.3 100.0	5.2348 [4.4237]	118.3%			
PFPeS	(349.0 / 80.0) 4818695 (349.0 / 99.0) 1828681	(7.13 , 0.89) (N/A , 0.00 , 0.0)	551.1 587.9	0.3795 103.1 100.0	5.0904 [4.6919]	108.5%			
PFHxS	(399.0 / 80.0) 4085332 (399.0 / 99.0) 1291891	(8.01 , 1.00) (0.00 , N/A , 0.1)	767.9 760.3	0.3162 98.9 100.0	4.7158 [4.5549]	103.5%			
PFHpS	(449.0 / 80.0) 3997173 (449.0 / 99.0) 1087853	(8.78 , 0.93) (N/A , 0.00 , 0.0)	567.4 564.0	0.2722 102.4 100.0	4.5515 [4.7570]	95.7%			
PFOS	(499.0 / 80.0) 4243280 (499.0 / 99.0) 955378	(9.46 , 1.00) (0.00 , N/A , 0.1)	402.4 800.0	0.2252 98.6 100.0	3.9614 [4.6375]	85.4%			
PFNS	(549.0 / 80.0) 5311468 (549.0 / 99.0) 1251761	(9.77 , 1.03) (N/A , 0.00 , 0.1)	737.6 560.2	0.2357 100.3 100.0	4.9764 [4.7994]	103.7%			
PFDS	(599.0 / 80.0) 5904128 (599.0 / 99.0) 1420923	(9.92 , 1.05) (N/A , 0.00 , 0.1)	911.6 455.3	0.2407 107.4 100.0	4.5239 [4.8155]	93.9%			
PFDoS	(699.0 / 80.0) 2798575 (699.0 / 99.0) 564466	(10.12 , 1.07) (N/A , 0.00 , 0.0)	1338.3 895.3	0.2017 98.5 100.0	5.3682 [4.8478]	110.7%			
4:2FTS	(327.0 / 307.0) 7350514 (327.0 / 81.0) 4420546	(5.80 , 1.00) (0.00 , N/A , -0.1)	686.2 622.2	0.6014 93.2 100.0	19.2696 [18.6906]	103.1%			
6:2FTS	(427.0 / 407.0) 4321539 (427.0 / 81.0) 2962890	(7.55 , 1.00) (0.00 , N/A , 0.1)	626.7 652.6	0.6856 97.0 100.0	18.5764 [18.9808]	97.9%			
8:2FTS	(527.0 / 507.0) 3747666 (527.0 / 81.0) 2785229	(8.97 , 1.00) (0.00 , N/A , -0.1)	531.5 611.5	0.7432 105.8 100.0	15.3706 [19.1658]	80.2%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 6161618 (498.0 / 478.0) 154699	(10.18 , 1.00) (0.00 , N/A , -0.3)	826.2 555.0	0.0251 157.5 100.0	5.1080 [5.0000]	102.2%			
NMeFOSA	(512.0 / 219.0) 4551200 (512.0 / 169.0) 3046899	(10.61 , 1.00) (0.00 , N/A , 0.0)	964.7 985.6	0.6695 98.4 100.0	22.7004 [20.0000]	113.5%			
NEIFOSA	(526.0 / 219.0) 4422648 (526.0 / 169.0) 4558450	(10.69 , 1.00) (0.00 , N/A , 0.0)	1332.4 1369.3	1.0307 102.6 100.0	19.5576 [20.0000]	97.8%			
NMeFOSAA	(570.0 / 419.0) 983013 (570.0 / 483.0) 508338	(9.51 , 1.00) (0.00 , N/A , -0.2)	418.2 448.2	0.5171 103.6 100.0	4.7450 [5.0000]	94.9%			
NEIFOSAA	(584.0 / 419.0) 979460 (584.0 / 526.0) 538676	(9.69 , 1.00) (0.01 , N/A , 0.0)	1429.7 443.4	0.5500 91.6 100.0	6.2510 [5.0000]	125.0%			
NMeFOSE	(616.0 / 59.0) 1054583	(10.58 , 1.00) (0.01 , N/A , 0.0)	1310.5	N/A 0.0 0.0	19.4353 [20.0000]	97.2%			
NEIFOSE	(630.0 / 59.0) 151244	(10.67 , 1.00) (0.01 , N/A , 0.0)	1014.7	N/A 0.0 0.0	19.0531 [20.0000]	95.3%			
HFPO-DA	(285.0 / 169.0) 1503898 (285.0 / 185.0) 4021284	(6.48 , 1.00) (0.00 , N/A , 0.0)	608.0 650.8	2.6739 97.1 100.0	9.4560 [10.0000]	94.6%			
ADONA	(377.0 / 85.0) 6382441 (377.0 / 251.0) 704541	(7.39 , 1.14) (N/A , 0.00 , -0.1)	713.8 557.2	0.1104 95.9 100.0	9.3716 [9.4270]	99.4%			
9CI-PF3ONS	(531.0 / 351.0) 16152829 (533.0 / 353.0) 5070276	(9.72 , 1.50) (N/A , 0.00 , -0.1)	699.5 616.1	0.3139 98.1 100.0	9.0368 [9.3325]	96.8%			
11CI-PF3OUDS	(631.0 / 451.0) 8591708 (633.0 / 453.0) 3060622	(10.01 , 1.54) (N/A , 0.00 , 0.0)	1019.5 931.2	0.3562 121.7 100.0	9.1951 [9.4321]	97.5%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 211614 (241.0 / 117.0) 283436	(4.47 , 0.90) (N/A , 0.00 , 0.1)	617.4 438.7	1.3394 98.1 100.0	19.9043 [20.0000]	99.5%			
5:3FTCA	(341.0 / 236.7) 1268368 (341.0 / 217.0) 2044775	(6.78 , 1.10) (N/A , 0.00 , 0.0)	534.3 573.7	1.6121 97.0 100.0	19.1537 [20.0000]	95.8%			
7:3FTCA	(441.0 / 317.0) 1574441 (441.0 / 337.0) 1353182	(8.60 , 1.40) (N/A , 0.00 , 0.0)	393.8 468.7	0.8595 102.8 100.0	19.3000 [20.0000]	96.5%			
PFEESA	(315.0 / 135.0) 3314483 (315.0 / 83.0) 1023907	(6.59 , 1.07) (N/A , 0.00 , 0.1)	520.1 825.0	0.3089 100.3 100.0	7.7081 [8.9246]	86.4%			
PFMPA	(229.0 / 85.0) 928225	(4.18 , 0.84) (N/A , 0.00 , 0.0)	829.1	N/A 0.0 0.0	10.0677 [10.0000]	100.7%			
PFMBA	(279.0 / 85.0) 2431522	(5.37 , 1.08) (N/A , 0.00 , 0.0)	679.1	N/A 0.0 0.0	10.0743 [10.0000]	100.7%			
NFDHA	(295.0 / 201.0) 1972081 (295.0 / 85.0) 1769722	(6.02 , 0.98) (N/A , 0.00 , 0.2)	660.9 614.0	0.8974 103.3 100.0	9.5534 [10.0000]	95.5%			
13C3_PFBa_IIS	(216.0 / 172.0) 287566	(3.68 , N/A) (N/A , 0.00 , N/A)	557.9	N/A	1.0638 [1.0000]	106.4% { 100.0% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 409906	(6.14 , N/A) (N/A , 0.00 , N/A)	848.8	N/A	1.0322 [1.0000]	103.2% { 100.0% }			
13C4_PFOA_IIS	(417.0 / 372.0) 391505	(7.89 , N/A) (N/A , 0.00 , N/A)	725.6	N/A	0.9800 [1.0000]	98.0% { 100.0% }			
13C5_PFNA_IIS	(468.0 / 423.0) 343117	(8.63 , N/A) (N/A , 0.00 , N/A)	460.3	N/A	1.0380 [1.0000]	103.8% { 100.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 362369	(9.31 , N/A) (N/A , 0.00 , N/A)	498.0	N/A	1.0148 [1.0000]	101.5% { 100.0% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 657587	(8.01 , N/A) (N/A , 0.00 , N/A)	742.8	N/A	0.9428 [1.0000]	94.3% { 100.0% }			
13C4_PFOS_IIS	(503.0 / 79.9) 675402	(9.45 , N/A) (N/A , 0.00 , N/A)	399.7	N/A	0.9795 [1.0000]	97.9% { 100.0% }			
13C4_PFBA_EIS	(217.0 / 172.0) 2361150	(3.68 , N/A) (N/A , 0.00 , N/A)	685.6	N/A	7.6407 [8.0000]	95.5% { 100.0% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1422331	(4.98 , N/A) (N/A , 0.00 , N/A)	620.7	N/A	3.7970 [4.0000]	94.9% { 100.0% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 947787	(6.14 , N/A) (N/A , 0.00 , N/A)	590.1	N/A	2.0788 [2.0000]	103.9% { 100.0% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 801225	(7.07 , N/A) (N/A , 0.00 , N/A)	617.9	N/A	1.9668 [2.0000]	98.3% { 100.0% }			
13C8_PFOA_EIS	(421.0 / 376.0) 818417	(7.89 , N/A) (N/A , 0.00 , N/A)	660.8	N/A	1.9077 [2.0000]	95.4% { 100.0% }			
13C9_PFNA_EIS	(472.0 / 427.0) 374596	(8.63 , N/A) (N/A , 0.00 , N/A)	397.4	N/A	0.9918 [1.0000]	99.2% { 100.0% }			
13C6_PFDA_EIS	(519.0 / 474.0) 422118	(9.31 , N/A) (N/A , 0.00 , N/A)	425.9	N/A	0.8905 [1.0000]	89.0% { 100.0% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 640852	(9.72 , N/A) (N/A , 0.00 , N/A)	624.4	N/A	1.1156 [1.0000]	111.6% { 100.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 630893	(9.90 , N/A) (N/A , 0.00 , N/A)	695.0	N/A	0.9978 [1.0000]	99.8% { 100.0% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 442401	(10.13 , N/A) (N/A , 0.00 , N/A)	1105.6	N/A	1.0600 [1.0000]	106.0% { 100.0% }			
13C3_PFBs_EIS	(302.0 / 80.0) 2154824	(6.09 , N/A) (N/A , 0.00 , N/A)	512.0	N/A	1.9460 [2.0000]	97.3% { 100.0% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1127216	(8.01 , N/A) (N/A , 0.00 , N/A)	718.1	N/A	1.9178 [2.0000]	95.9% { 100.0% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1846333	(9.46 , N/A) (N/A , 0.00 , N/A)	218.4	N/A	2.1108 [2.0000]	105.5% { 100.0% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 534829	(5.80 , N/A) (N/A , 0.00 , N/A)	579.1	N/A	4.1013 [4.0000]	102.5% { 100.0% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 679885	(7.55 , N/A) (N/A , 0.00 , N/A)	795.2	N/A	4.1954 [4.0000]	104.9% { 100.0% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 723892	(8.97 , N/A) (N/A , 0.00 , N/A)	484.2	N/A	4.5310 [4.0000]	113.3% { 100.0% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 2513692	(10.18 , N/A) (N/A , 0.00 , N/A)	752.1	N/A	2.1614 [2.0000]	108.1% { 100.0% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 460952	(10.60 , N/A) (N/A , 0.00 , N/A)	885.1	N/A	2.0438 [2.0000]	102.2% { 100.0% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 492057	(10.69 , N/A) (N/A , 0.00 , N/A)	1109.1	N/A	2.4486 [2.0000]	122.4% { 100.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 997917	(9.50 , N/A) (N/A , 0.00 , N/A)	293.3	N/A	4.1704 [4.0000]	104.3% { 100.0% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 722719	(9.68 , N/A) (N/A , 0.00 , N/A)	539.3	N/A	3.5263 [4.0000]	88.2% { 100.0% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 961194	(10.57 , N/A) (N/A , 0.00 , N/A)	776.1	N/A	26.6009 [20.0000]	133.0% { 100.0% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 418687	(10.66 , N/A) (N/A , 0.00 , N/A)	1329.6	N/A	28.6523 [20.0000]	143.3% { 100.0% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 2072821	(6.48 , N/A) (N/A , 0.00 , N/A)	906.8	N/A	8.1871 [8.0000]	102.3% { 100.0% }			

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 1633

Laboratory: APPL, LLC

Work Order: 22L0126

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Instrument ID: Saphira

Calibration: 2253007

Standard ID: 22L0304

Sequence: SB03989

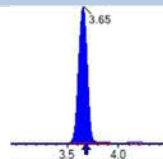
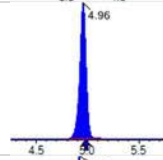
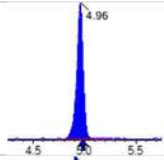
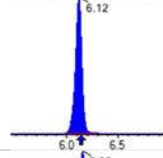
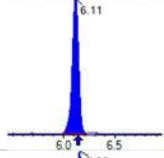
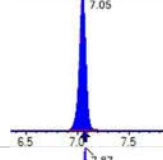
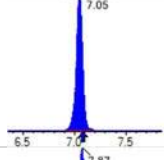
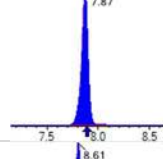
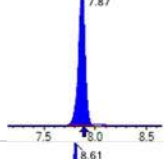
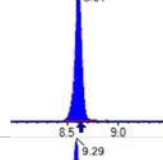
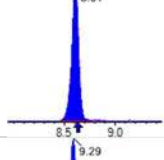
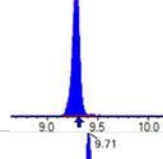
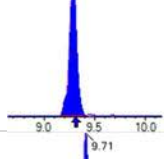
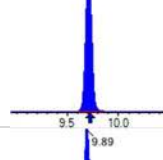
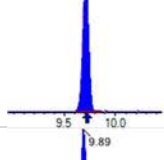
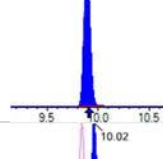
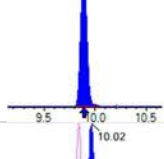
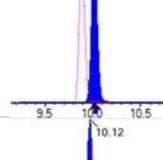
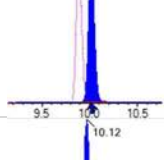
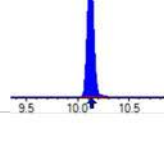
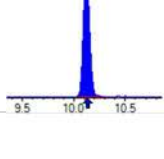
Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB03989-CCV2	PFBA	20.0	20.3	101	ng/mL	+/- 30.00%
	PFPEA	10.0	9.70	97.0	ng/mL	+/- 30.00%
	PFHXA	5.00	4.72	94.4	ng/mL	+/- 30.00%
	PFHPA	5.00	4.90	98.0	ng/mL	+/- 30.00%
	PFOA	5.00	4.81	96.3	ng/mL	+/- 30.00%
	PFNA	5.00	5.01	100	ng/mL	+/- 30.00%
	PFDA	5.00	5.23	105	ng/mL	+/- 30.00%
	PFUnA	5.00	4.86	97.1	ng/mL	+/- 30.00%
	PFDOA	5.00	4.99	99.8	ng/mL	+/- 30.00%
	PFTRDA	5.00	4.66	93.2	ng/mL	+/- 30.00%
	PFTEDA	5.00	4.73	94.6	ng/mL	+/- 30.00%
	PFBS	4.42	4.68	106	ng/mL	+/- 30.00%
	PFPEs	4.70	5.22	111	ng/mL	+/- 30.00%
	PFHXS	4.58	4.73	103	ng/mL	+/- 30.00%
	PFHPS	4.78	4.41	92.3	ng/mL	+/- 30.00%
	PFOS	4.65	4.12	88.7	ng/mL	+/- 30.00%
	PFNS	4.80	4.73	98.5	ng/mL	+/- 30.00%
	PFDS	4.82	4.51	93.6	ng/mL	+/- 30.00%
	PFDOS	4.85	4.62	95.3	ng/mL	+/- 30.00%
	4:2FTS	18.8	24.0	128	ng/mL	+/- 30.00%
	6:2FTS	19.0	22.7	119	ng/mL	+/- 30.00%
	8:2FTS	19.2	21.6	113	ng/mL	+/- 30.00%
	PFOSA	5.00	4.72	94.5	ng/mL	+/- 30.00%
	NMeFOSA	20.0	21.3	107	ng/mL	+/- 30.00%
	NEtFOSA	20.0	20.8	104	ng/mL	+/- 30.00%
	NMeFOSAA	5.00	4.72	94.4	ng/mL	+/- 30.00%
	NEtFOSAA	5.00	5.00	100	ng/mL	+/- 30.00%
	NMeFOSE	20.0	18.0	90.0	ng/mL	+/- 30.00%
	NEtFOSE	20.0	17.6	87.9	ng/mL	+/- 30.00%
	HFPO-DA	10.0	10.4	104	ng/mL	+/- 30.00%

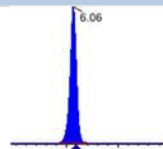
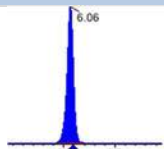
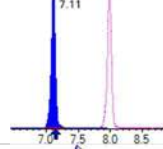
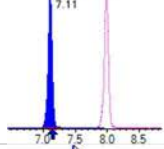
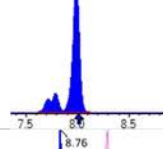
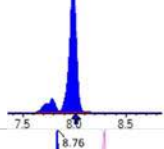
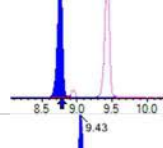
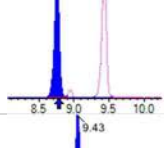
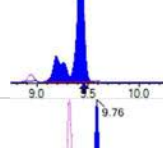
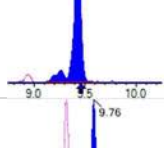
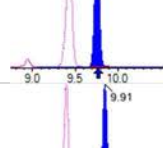
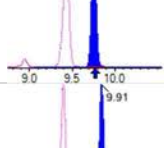
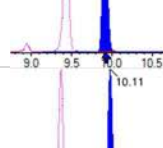
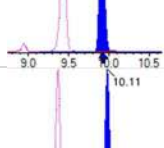
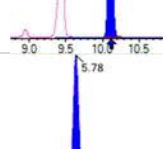
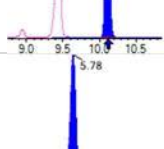
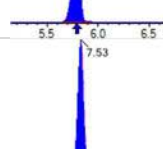
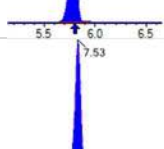
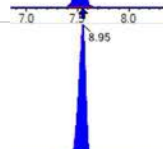
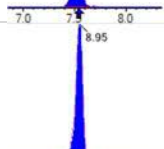

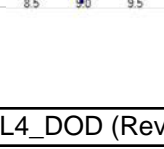
INITIAL AND CONTINUING CALIBRATION CHECK

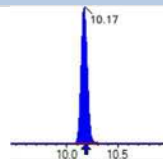
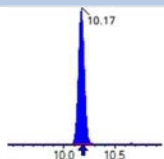
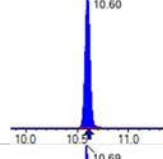
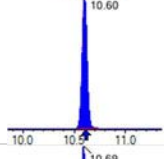
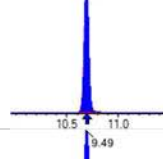
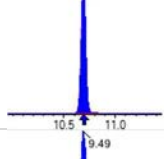
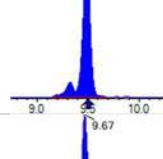
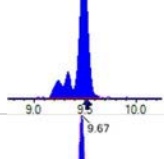
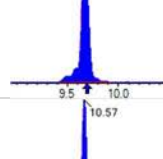
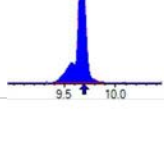
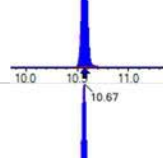
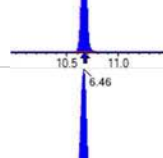
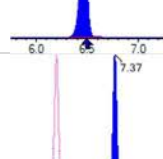
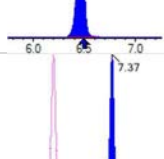
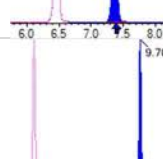
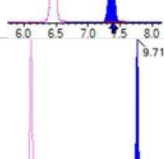
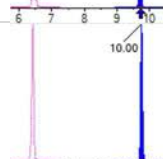
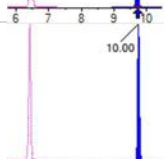

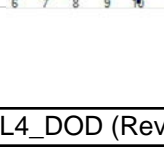
EPA 1633

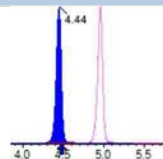
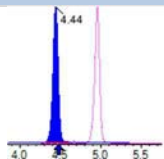
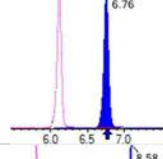
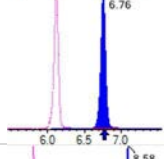
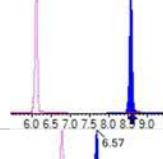
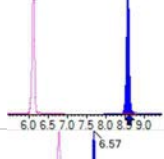
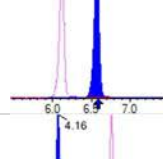
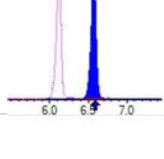
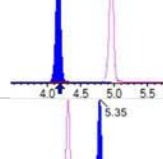
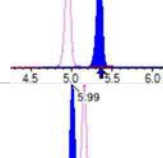
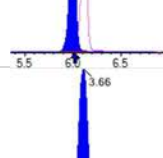
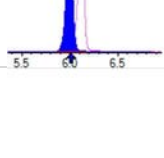
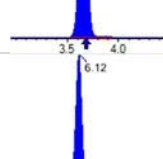
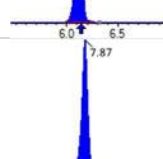
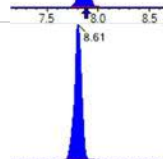

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Instrument ID:	Saphira	Calibration:	2253007
Standard ID:	22L0304	Sequence:	SB03989

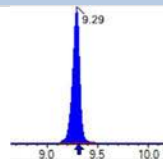
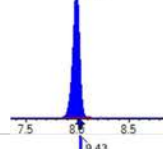
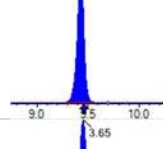
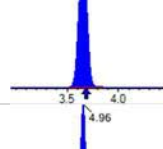
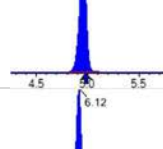
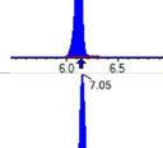
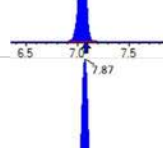
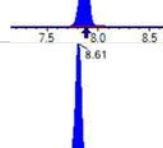
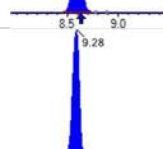
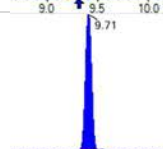
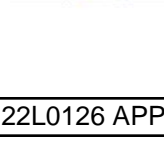
Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB03989-CCV2	ADONA	9.45	9.49	100	ng/mL	+/- 30.00%
	PFEESA	8.90	8.81	99.0	ng/mL	+/- 30.00%
	PFMPA	10.0	9.92	99.2	ng/mL	+/- 30.00%
	PFMBA	10.0	9.91	99.1	ng/mL	+/- 30.00%
	NFDHA	10.0	9.88	98.8	ng/mL	+/- 30.00%
	9CL-PF3ONS	9.35	9.74	104	ng/mL	+/- 30.00%
	11CL-PF3OUDS	9.45	8.65	91.5	ng/mL	+/- 30.00%
	3:3FTCA	20.0	18.8	94.2	ng/mL	+/- 30.00%
	5:3FTCA	20.0	20.0	99.9	ng/mL	+/- 30.00%
	7:3FTCA	20.0	19.9	99.7	ng/mL	+/- 30.00%

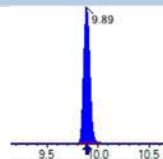
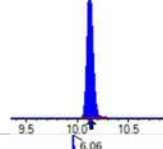
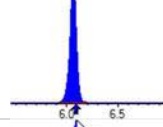
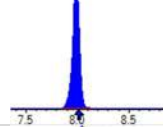
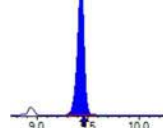
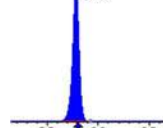
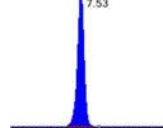
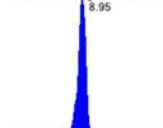
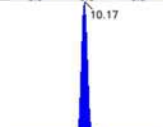
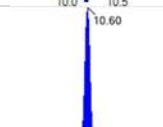
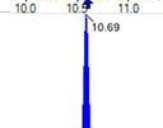
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 5073835	(3.65 , 1.00) (0.00 , N/A , 0.0)	577.2	N/A 0.0 0.0	20.2968 [20.0000]	101.5%			
PFPeA	(263.0 / 219.0) 3043765 (263.0 / 69.0) 33511	(4.96 , 1.00) (0.00 , N/A , -0.1)	637.1 316.8	0.0110 102.0 103.7	9.6974 [10.0000]	97.0%			
PFHxA	(313.0 / 269.0) 1933697 (313.0 / 119.0) 171525	(6.12 , 1.00) (0.00 , N/A , 0.2)	502.0 399.9	0.0887 98.5 102.7	4.7189 [5.0000]	94.4%			
PFHpA	(363.0 / 319.0) 1861601 (363.0 / 169.0) 518975	(7.05 , 1.00) (0.00 , N/A , 0.1)	604.3 496.8	0.2788 91.6 93.8	4.9015 [5.0000]	98.0%			
PFOA	(413.0 / 369.0) 2000550 (413.0 / 169.0) 629455	(7.87 , 1.00) (0.00 , N/A , 0.1)	598.5 570.0	0.3146 93.6 100.4	4.8132 [5.0000]	96.3%			
PFNA	(463.0 / 419.0) 1470042 (463.0 / 169.0) 324963	(8.61 , 1.00) (0.00 , N/A , 0.1)	477.5 331.0	0.2211 105.7 104.9	5.0089 [5.0000]	100.2%			
PFDA	(513.0 / 469.0) 2001224 (513.0 / 169.0) 209230	(9.29 , 1.00) (0.00 , N/A , 0.0)	451.5 339.1	0.1046 117.3 132.7	5.2272 [5.0000]	104.5%			
PFUnA	(563.0 / 519.0) 2301040 (563.0 / 169.0) 226597	(9.71 , 1.00) (0.00 , N/A , 0.0)	758.3 291.6	0.0985 93.5 85.9	4.8571 [5.0000]	97.1%			
PFDoA	(613.0 / 569.0) 2637046 (613.0 / 169.0) 325048	(9.89 , 1.00) (0.00 , N/A , 0.2)	1064.5 437.9	0.1233 96.0 92.5	4.9893 [5.0000]	99.8%			
PFTTrDA	(663.0 / 619.0) 2081838 (663.0 / 169.0) 485461	(10.02 , 1.01) (N/A , -0.01 , -0.1)	720.4 447.1	0.2332 102.2 111.3	4.6600 [5.0000]	93.2%			
PFTeDA	(713.0 / 669.0) 1850226 (713.0 / 169.0) 381579	(10.12 , 1.00) (0.00 , N/A , 0.1)	906.0 491.8	0.2062 98.7 111.9	4.7306 [5.0000]	94.6%			

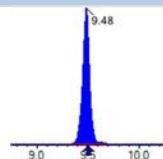




Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 2882211 (299.0 / 99.0) 1871198	(6.06 , 1.00) (0.00 , N/A , 0.0)	634.5 701.2	0.6492 97.4 109.1	4.6849 [4.4237]	105.9%			
PFPeS	(349.0 / 80.0) 4870501 (349.0 / 99.0) 1673471	(7.11 , 0.89) (N/A , -0.02 , 0.1)	618.4 634.5	0.3436 93.3 90.5	5.2210 [4.6919]	111.3%			
PFHxS	(399.0 / 80.0) 4041932 (399.0 / 99.0) 1287327	(7.99 , 1.00) (0.00 , N/A , 0.2)	685.0 832.1	0.3185 99.6 100.7	4.7345 [4.5549]	103.9%			
PFHpS	(449.0 / 80.0) 3772756 (449.0 / 99.0) 986547	(8.76 , 0.93) (N/A , -0.03 , 0.1)	582.4 500.7	0.2615 98.3 96.1	4.4111 [4.7570]	92.7%			
PFOS	(499.0 / 80.0) 4301095 (499.0 / 99.0) 919568	(9.43 , 1.00) (0.00 , N/A , 0.0)	325.4 538.5	0.2138 93.6 95.0	4.1230 [4.6375]	88.9%			
PFNS	(549.0 / 80.0) 4916901 (549.0 / 99.0) 1147454	(9.76 , 1.03) (N/A , -0.01 , 0.1)	845.3 879.9	0.2334 99.3 99.0	4.7302 [4.7994]	98.6%			
PFDS	(599.0 / 80.0) 5732348 (599.0 / 99.0) 1280822	(9.91 , 1.05) (N/A , -0.01 , 0.2)	896.2 664.0	0.2234 99.7 92.8	4.5100 [4.8155]	93.7%			
PFDoS	(699.0 / 80.0) 2345662 (699.0 / 99.0) 571285	(10.11 , 1.07) (N/A , -0.01 , -0.1)	1117.9 761.7	0.2435 119.0 120.7	4.6201 [4.8478]	95.3%			
4:2FTS	(327.0 / 307.0) 7843567 (327.0 / 81.0) 4344749	(5.78 , 1.00) (0.00 , N/A , -0.1)	563.3 609.8	0.5539 85.9 92.1	24.0295 [18.6906]	128.6%			
6:2FTS	(427.0 / 407.0) 4953277 (427.0 / 81.0) 3602540	(7.53 , 1.00) (0.00 , N/A , -0.3)	726.2 713.1	0.7273 102.9 106.1	22.7006 [18.9808]	119.6%			
8:2FTS	(527.0 / 507.0) 4322498 (527.0 / 81.0) 3015993	(8.95 , 1.00) (0.00 , N/A , 0.0)	465.6 633.1	0.6977 99.3 93.9	21.6080 [19.1658]	112.7%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (Δ RT-[min], Δ RT- CV[min], Δ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 6061307 (498.0 / 478.0) 130356	(10.17 , 1.00) (0.00 , N/A , -0.2)	1275.5 570.3	0.0215 134.9 85.7	4.7241 [5.0000]	94.5%			
NMeFOSA	(512.0 / 219.0) 4625960 (512.0 / 169.0) 3160310	(10.60 , 1.00) (0.00 , N/A , 0.0)	1311.0 1147.6	0.6832 100.4 102.0	21.3268 [20.0000]	106.6%			
NEIFOSA	(526.0 / 219.0) 4559358 (526.0 / 169.0) 4890133	(10.69 , 1.00) (0.00 , N/A , 0.0)	1017.3 1180.0	1.0725 106.8 104.1	20.7902 [20.0000]	104.0%			
NMeFOSAA	(570.0 / 419.0) 948549 (570.0 / 483.0) 489754	(9.49 , 1.00) (0.00 , N/A , -0.1)	495.8 386.1	0.5163 103.5 99.8	4.7199 [5.0000]	94.4%			
NEIFOSAA	(584.0 / 419.0) 837497 (584.0 / 526.0) 568354	(9.67 , 1.00) (0.00 , N/A , 0.1)	1005.3 687.2	0.6786 113.0 123.4	5.0037 [5.0000]	100.1%			
NMeFOSE	(616.0 / 59.0) 1094985	(10.57 , 1.00) (0.01 , N/A , 0.0)	828.6	N/A 0.0 0.0	18.0048 [20.0000]	90.0%			
NEiFOSE	(630.0 / 59.0) 152870	(10.67 , 1.00) (0.01 , N/A , 0.0)	835.1	N/A 0.0 0.0	17.5835 [20.0000]	87.9%			
HFPO-DA	(285.0 / 169.0) 1573509 (285.0 / 185.0) 4272430	(6.46 , 1.00) (0.00 , N/A , 0.0)	590.8 696.2	2.7152 98.6 101.5	10.3750 [10.0000]	103.7%			
ADONA	(377.0 / 85.0) 6161538 (377.0 / 251.0) 739327	(7.37 , 1.14) (N/A , -0.02 , -0.1)	595.1 516.4	0.1200 104.3 108.7	9.4873 [9.4270]	100.6%			
9CI-Pf3ONS	(531.0 / 351.0) 16610590 (533.0 / 353.0) 4962093	(9.70 , 1.50) (N/A , -0.01 , -0.1)	982.9 779.7	0.2987 93.4 95.2	9.7449 [9.3325]	104.4%			
11CI-PF3OUDS	(631.0 / 451.0) 7705858 (633.0 / 453.0) 2461803	(10.00 , 1.55) (N/A , -0.01 , 0.1)	888.5 730.0	0.3195 109.1 89.7	8.6482 [9.4321]	91.7%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 206951 (241.0 / 117.0) 282744	(4.44 , 0.90) (N/A , -0.03 , 0.2)	593.3 398.9	1.3662 100.0 102.0	18.8415 [20.0000]	94.2%			
5:3FTCA	(341.0 / 236.7) 1255288 (341.0 / 217.0) 1940590	(6.76 , 1.10) (N/A , -0.02 , 0.0)	585.4 595.0	1.5459 93.0 95.9	19.9721 [20.0000]	99.9%			
7:3FTCA	(441.0 / 317.0) 1543709 (441.0 / 337.0) 1315269	(8.58 , 1.40) (N/A , -0.02 , 0.0)	449.4 397.8	0.8520 101.9 99.1	19.9374 [20.0000]	99.7%			
PFEESA	(315.0 / 135.0) 3596414 (315.0 / 83.0) 1044984	(6.57 , 1.07) (N/A , -0.02 , 0.0)	515.2 580.5	0.2906 94.3 94.1	8.8120 [8.9246]	98.7%			
PFMPA	(229.0 / 85.0) 944954	(4.16 , 0.84) (N/A , -0.02 , 0.0)	1060.8	N/A 0.0 0.0	9.9205 [10.0000]	99.2%			
PFMBA	(279.0 / 85.0) 2470314	(5.35 , 1.08) (N/A , -0.02 , 0.0)	707.8	N/A 0.0 0.0	9.9068 [10.0000]	99.1%			
NFDHA	(295.0 / 201.0) 1935666 (295.0 / 85.0) 1719216	(5.99 , 0.98) (N/A , -0.02 , 0.0)	634.4 751.3	0.8882 102.3 99.0	9.8795 [10.0000]	98.8%			
13C3_PFBA_IIS	(216.0 / 172.0) 281710	(3.66 , N/A) (N/A , -0.02 , N/A)	651.3	N/A	1.0421 [1.0000]	104.2% { 98.0% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 400765	(6.12 , N/A) (N/A , -0.02 , N/A)	373.4	N/A	1.0092 [1.0000]	100.9% { 97.8% }			
13C4_PFOA_IIS	(417.0 / 372.0) 405187	(7.87 , N/A) (N/A , -0.02 , N/A)	723.6	N/A	1.0143 [1.0000]	101.4% { 103.5% }			
13C5_PFNA_IIS	(468.0 / 423.0) 308653	(8.61 , N/A) (N/A , -0.02 , N/A)	443.9	N/A	0.9337 [1.0000]	93.4% { 90.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 366742	(9.29 , N/A) (N/A , -0.02 , N/A)	278.6	N/A	1.0271 [1.0000]	102.7% { 101.2% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 664778	(7.99 , N/A) (N/A , -0.02 , N/A)	676.4	N/A	0.9531 [1.0000]	95.3% { 101.1% }			
13C4_PFOS_IIS	(503.0 / 79.9) 671297	(9.43 , N/A) (N/A , -0.02 , N/A)	451.6	N/A	0.9735 [1.0000]	97.4% { 99.4% }			
13C4_PFBA_EIS	(217.0 / 172.0) 2384813	(3.65 , N/A) (N/A , -0.02 , N/A)	770.5	N/A	7.8777 [8.0000]	98.5% { 101.0% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1469448	(4.96 , N/A) (N/A , -0.02 , N/A)	602.6	N/A	4.0122 [4.0000]	100.3% { 103.3% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 899577	(6.12 , N/A) (N/A , -0.02 , N/A)	501.9	N/A	2.0181 [2.0000]	100.9% { 94.9% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 793137	(7.05 , N/A) (N/A , -0.03 , N/A)	657.6	N/A	1.9914 [2.0000]	99.6% { 99.0% }			
13C8_PFOA_EIS	(421.0 / 376.0) 894841	(7.87 , N/A) (N/A , -0.02 , N/A)	524.9	N/A	2.0154 [2.0000]	100.8% { 109.3% }			
13C9_PFNA_EIS	(472.0 / 427.0) 324087	(8.61 , N/A) (N/A , -0.02 , N/A)	423.8	N/A	0.9538 [1.0000]	95.4% { 86.5% }			
13C6_PFDA_EIS	(519.0 / 474.0) 429870	(9.28 , N/A) (N/A , -0.03 , N/A)	383.5	N/A	0.8960 [1.0000]	89.6% { 101.8% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 598258	(9.71 , N/A) (N/A , -0.02 , N/A)	678.5	N/A	1.0290 [1.0000]	102.9% { 93.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 616706	(9.89 , N/A) (N/A , -0.01 , N/A)	903.0	N/A	0.9637 [1.0000]	96.4% { 97.8% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 430625	(10.12 , N/A) (N/A , -0.01 , N/A)	1679.3	N/A	1.0195 [1.0000]	102.0% { 97.3% }			
13C3_PFBs_EIS	(302.0 / 80.0) 2205881	(6.06 , N/A) (N/A , -0.03 , N/A)	573.6	N/A	1.9705 [2.0000]	98.5% { 102.4% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1110827	(7.99 , N/A) (N/A , -0.02 , N/A)	743.5	N/A	1.8695 [2.0000]	93.5% { 98.5% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1798131	(9.43 , N/A) (N/A , -0.02 , N/A)	219.8	N/A	2.0683 [2.0000]	103.4% { 97.4% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 457655	(5.78 , N/A) (N/A , -0.02 , N/A)	637.9	N/A	3.4716 [4.0000]	86.8% { 85.6% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 637696	(7.53 , N/A) (N/A , -0.02 , N/A)	720.2	N/A	3.8925 [4.0000]	97.3% { 93.8% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 593915	(8.95 , N/A) (N/A , -0.02 , N/A)	417.9	N/A	3.6772 [4.0000]	91.9% { 82.0% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 2673716	(10.17 , N/A) (N/A , -0.01 , N/A)	1010.3	N/A	2.3131 [2.0000]	115.7% { 106.4% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 498700	(10.60 , N/A) (N/A , -0.01 , N/A)	696.5	N/A	2.2247 [2.0000]	111.2% { 108.2% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 477194	(10.69 , N/A) (N/A , 0.00 , N/A)	904.5	N/A	2.3892 [2.0000]	119.5% { 97.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 968051	(9.48 , N/A) (N/A , -0.02 , N/A)	243.5	N/A	4.0703 [4.0000]	101.8% { 97.0% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 772017	(9.67 , N/A) (N/A , -0.02 , N/A)	297.8	N/A	3.7899 [4.0000]	94.7% { 106.8% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 1077309	(10.56 , N/A) (N/A , -0.01 , N/A)	1213.7	N/A	29.9967 [20.0000]	150.0% { 112.1% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 458558	(10.66 , N/A) (N/A , 0.00 , N/A)	1300.2	N/A	31.5726 [20.0000]	157.9% { 109.5% }			S2,
13C3_HFPODA_EIS	(287.0 / 169.0) 1976672	(6.46 , N/A) (N/A , -0.02 , N/A)	702.8	N/A	7.9854 [8.0000]	99.8% { 95.4% }			

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 1633

Laboratory: APPL, LLC

Work Order: 22L0126

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Instrument ID: Saphira

Calibration: 2253007

Standard ID: 22L0304

Sequence: SB03989

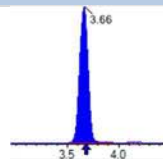
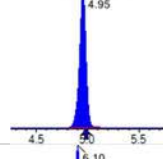
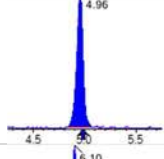
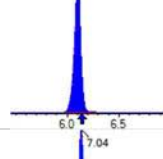
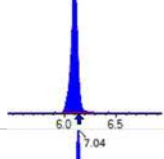
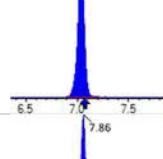
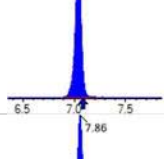
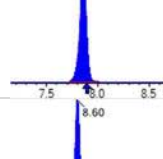
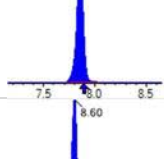
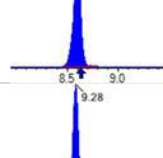
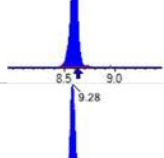
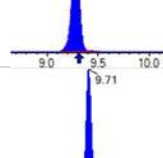
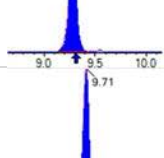
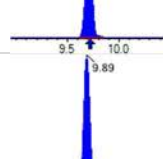
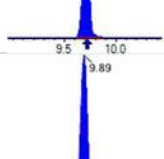
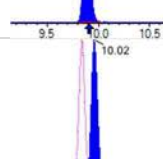
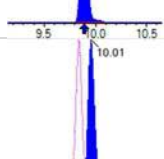
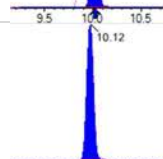
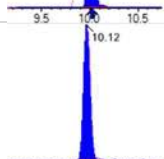
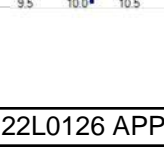
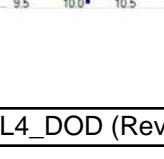
Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB03989-CCV3	PFBA	20.0	20.4	102	ng/mL	+/- 30.00%
	PFPEA	10.0	9.76	97.6	ng/mL	+/- 30.00%
	PFHXA	5.00	4.94	98.8	ng/mL	+/- 30.00%
	PFHPA	5.00	5.24	105	ng/mL	+/- 30.00%
	PFOA	5.00	5.22	104	ng/mL	+/- 30.00%
	PFNA	5.00	4.32	86.4	ng/mL	+/- 30.00%
	PFDA	5.00	5.46	109	ng/mL	+/- 30.00%
	PFUnA	5.00	4.85	97.0	ng/mL	+/- 30.00%
	PFDOA	5.00	4.81	96.3	ng/mL	+/- 30.00%
	PFTRDA	5.00	6.23	125	ng/mL	+/- 30.00%
	PFTEDA	5.00	4.60	91.9	ng/mL	+/- 30.00%
	PFBS	4.42	4.55	103	ng/mL	+/- 30.00%
	PFPEs	4.70	4.76	101	ng/mL	+/- 30.00%
	PFHXS	4.58	4.77	104	ng/mL	+/- 30.00%
	PFHPS	4.78	4.99	104	ng/mL	+/- 30.00%
	PFOS	4.65	4.55	97.8	ng/mL	+/- 30.00%
	PFNS	4.80	5.53	115	ng/mL	+/- 30.00%
	PFDS	4.82	5.23	108	ng/mL	+/- 30.00%
	PFDOS	4.85	5.35	110	ng/mL	+/- 30.00%
	4:2FTS	18.8	22.2	118	ng/mL	+/- 30.00%
	6:2FTS	19.0	20.5	108	ng/mL	+/- 30.00%
	8:2FTS	19.2	20.8	109	ng/mL	+/- 30.00%
	PFOSA	5.00	5.21	104	ng/mL	+/- 30.00%
	NMeFOSA	20.0	22.7	114	ng/mL	+/- 30.00%
	NEtFOSA	20.0	20.1	100	ng/mL	+/- 30.00%
	NMeFOSAA	5.00	4.49	89.9	ng/mL	+/- 30.00%
	NEtFOSAA	5.00	5.10	102	ng/mL	+/- 30.00%
	NMeFOSE	20.0	19.6	98.0	ng/mL	+/- 30.00%
	NEtFOSE	20.0	23.5	118	ng/mL	+/- 30.00%
	HFPO-DA	10.0	9.69	96.9	ng/mL	+/- 30.00%

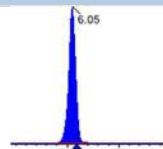
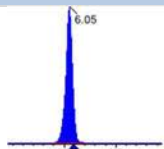
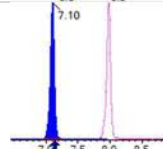
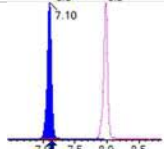
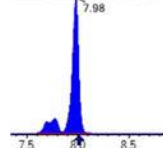
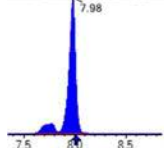
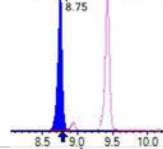
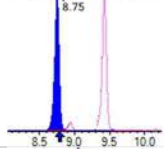
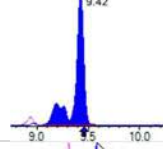
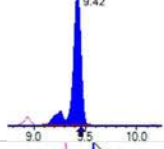
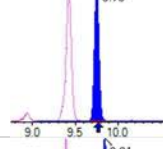
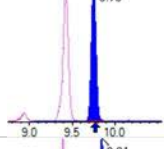
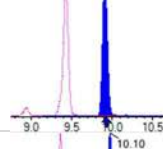
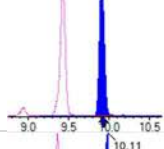
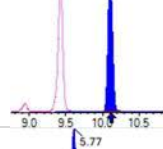
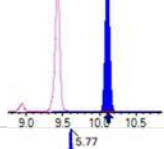
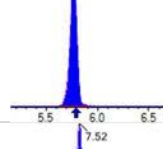
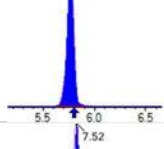
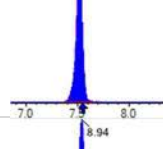
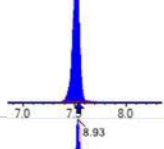
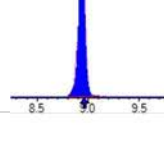
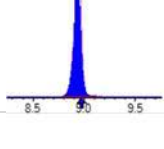
INITIAL AND CONTINUING CALIBRATION CHECK

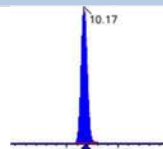
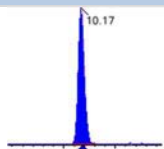
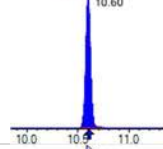
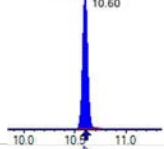
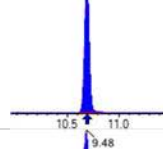
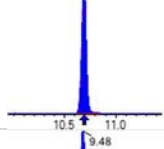
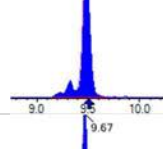
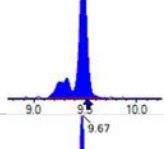
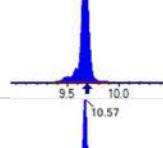
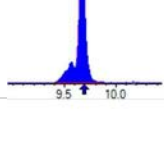
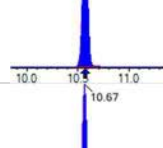
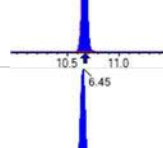
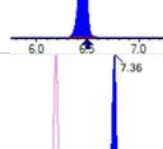
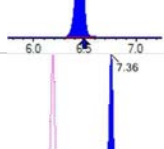
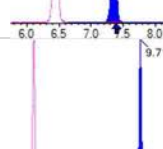
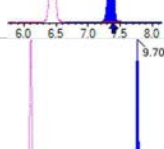
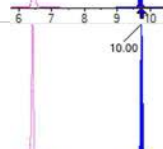
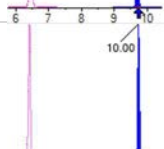

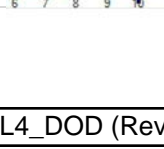
EPA 1633

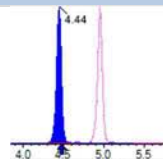
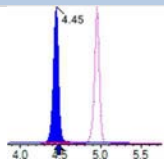
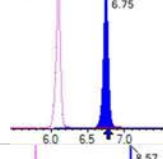
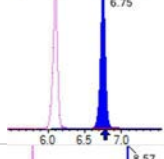
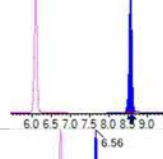
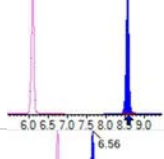
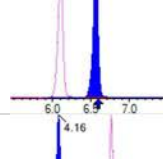
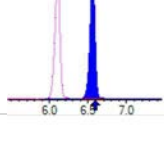
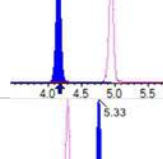
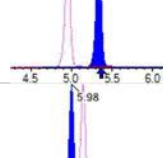
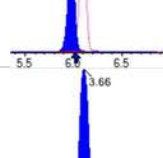
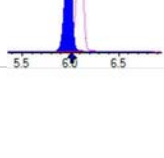
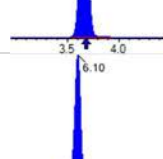
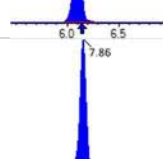
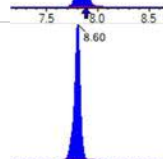

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Instrument ID:	Saphira	Calibration:	2253007
Standard ID:	22L0304	Sequence:	SB03989

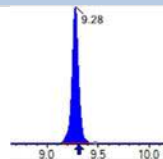
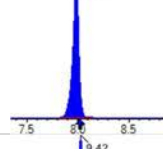
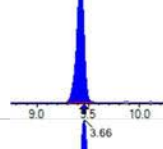
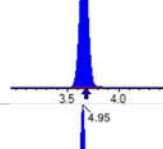
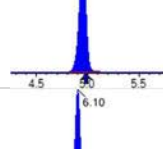
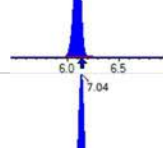
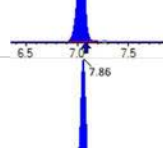
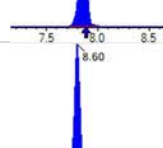
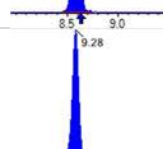
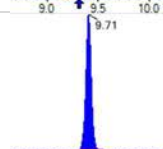
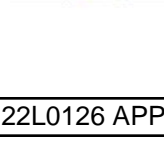
Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB03989-CCV3	ADONA	9.45	9.50	101	ng/mL	+/- 30.00%
	PFEESA	8.90	8.52	95.7	ng/mL	+/- 30.00%
	PFMPA	10.0	9.90	99.0	ng/mL	+/- 30.00%
	PFMBA	10.0	10.2	102	ng/mL	+/- 30.00%
	NFDHA	10.0	10.8	108	ng/mL	+/- 30.00%
	9CL-PF3ONS	9.35	8.67	92.8	ng/mL	+/- 30.00%
	11CL-PF3OUDS	9.45	8.91	94.2	ng/mL	+/- 30.00%
	3:3FTCA	20.0	19.8	99.0	ng/mL	+/- 30.00%
	5:3FTCA	20.0	20.1	100	ng/mL	+/- 30.00%
	7:3FTCA	20.0	21.4	107	ng/mL	+/- 30.00%

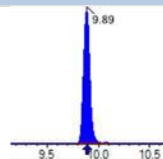
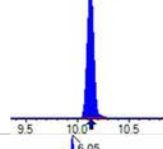
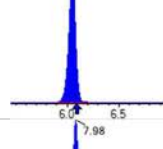
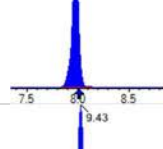
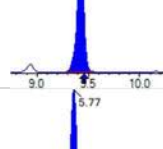
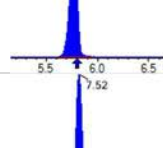
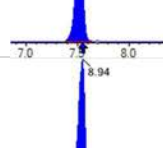
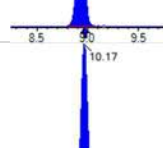
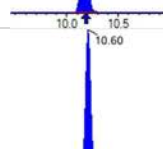
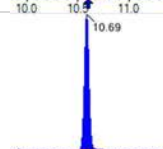
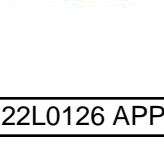
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (Δ RT-[min], Δ RT- CV[min], Δ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 4799564	(3.66 , 1.00) (0.00 , N/A , 0.0)	549.9	N/A 0.0 0.0	20.3671 [20.0000]	101.8%			
PFPeA	(263.0 / 219.0) 2933324 (263.0 / 69.0) 32270	(4.95 , 1.00) (0.00 , N/A , -0.1)	632.2 270.2	0.0110 101.9 103.7	9.7599 [10.0000]	97.6%			
PFHxA	(313.0 / 269.0) 1914185 (313.0 / 119.0) 168157	(6.10 , 1.00) (0.00 , N/A , 0.1)	475.1 401.8	0.0878 97.6 101.7	4.9421 [5.0000]	98.8%			
PFHpA	(363.0 / 319.0) 1836908 (363.0 / 169.0) 520756	(7.04 , 1.00) (0.00 , N/A , -0.1)	481.5 515.1	0.2835 93.1 95.4	5.2440 [5.0000]	104.9%			
PFOA	(413.0 / 369.0) 2030052 (413.0 / 169.0) 669292	(7.86 , 1.00) (0.00 , N/A , 0.2)	690.4 669.5	0.3297 98.1 105.2	5.2157 [5.0000]	104.3%			
PFNA	(463.0 / 419.0) 1581742 (463.0 / 169.0) 360834	(8.60 , 1.00) (0.00 , N/A , 0.1)	431.3 470.6	0.2281 109.1 108.2	4.3223 [5.0000]	86.4%			
PFDA	(513.0 / 469.0) 2311419 (513.0 / 169.0) 193939	(9.28 , 1.00) (0.00 , N/A , 0.0)	550.5 348.6	0.0839 94.1 106.5	5.4642 [5.0000]	109.3%			
PFUnA	(563.0 / 519.0) 2123562 (563.0 / 169.0) 233455	(9.71 , 1.00) (0.00 , N/A , -0.3)	757.9 480.5	0.1099 104.3 95.9	4.8475 [5.0000]	97.0%			
PFDoA	(613.0 / 569.0) 2375989 (613.0 / 169.0) 328548	(9.89 , 1.00) (0.00 , N/A , -0.2)	692.3 499.4	0.1383 107.7 103.7	4.8128 [5.0000]	96.3%			
PFTTrDA	(663.0 / 619.0) 2599343 (663.0 / 169.0) 536434	(10.02 , 1.01) (N/A , -0.01 , 0.1)	763.2 548.7	0.2064 90.4 98.5	6.2292 [5.0000]	124.6%			
PFTeDA	(713.0 / 669.0) 1747862 (713.0 / 169.0) 373524	(10.12 , 1.00) (0.00 , N/A , 0.2)	880.5 486.6	0.2137 102.3 116.0	4.5959 [5.0000]	91.9%			

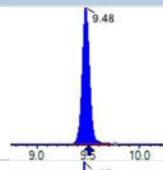
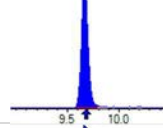
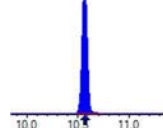
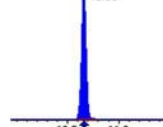
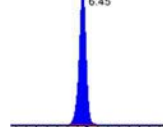
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 2609540 (299.0 / 99.0) 1726725	(6.05 , 1.00) (0.00 , N/A , 0.0)	573.4 579.3	0.6617 99.3 111.2	4.5485 [4.4237]	102.8%			
PFPeS	(349.0 / 80.0) 4675610 (349.0 / 99.0) 1635634	(7.10 , 0.89) (N/A , -0.03 , -0.1)	786.8 565.5	0.3498 95.0 92.2	4.7637 [4.6919]	101.5%			
PFHxS	(399.0 / 80.0) 4288237 (399.0 / 99.0) 1404285	(7.98 , 1.00) (0.00 , N/A , 0.1)	685.5 970.6	0.3275 102.4 103.6	4.7741 [4.5549]	104.8%			
PFHpS	(449.0 / 80.0) 4060344 (449.0 / 99.0) 1050149	(8.75 , 0.93) (N/A , -0.03 , 0.1)	669.0 730.0	0.2586 97.3 95.0	4.9868 [4.7570]	104.8%			
PFOS	(499.0 / 80.0) 4515150 (499.0 / 99.0) 879710	(9.42 , 1.00) (0.00 , N/A , 0.0)	403.7 620.8	0.1948 85.3 86.5	4.5465 [4.6375]	98.0%			
PFNS	(549.0 / 80.0) 5469435 (549.0 / 99.0) 1247899	(9.75 , 1.03) (N/A , -0.02 , 0.0)	588.5 601.3	0.2282 97.1 96.8	5.5271 [4.7994]	115.2%			
PFDS	(599.0 / 80.0) 6323397 (599.0 / 99.0) 1350213	(9.91 , 1.05) (N/A , -0.01 , 0.0)	1050.3 612.6	0.2135 95.3 88.7	5.2259 [4.8155]	108.5%			
PFDoS	(699.0 / 80.0) 2586381 (699.0 / 99.0) 595073	(10.10 , 1.07) (N/A , -0.01 , -0.2)	1194.6 592.1	0.2301 112.4 114.1	5.3511 [4.8478]	110.4%			
4:2FTS	(327.0 / 307.0) 6925145 (327.0 / 81.0) 4321164	(5.77 , 1.00) (0.00 , N/A , 0.2)	659.0 772.4	0.6240 96.7 103.8	22.2096 [18.6906]	118.8%			
6:2FTS	(427.0 / 407.0) 4446653 (427.0 / 81.0) 3379452	(7.52 , 1.00) (0.01 , N/A , 0.1)	700.6 811.2	0.7600 107.5 110.9	20.5356 [18.9808]	108.2%			
8:2FTS	(527.0 / 507.0) 3993601 (527.0 / 81.0) 2580307	(8.94 , 1.00) (0.00 , N/A , 0.3)	508.9 456.2	0.6461 92.0 86.9	20.8457 [19.1658]	108.8%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 5981357 (498.0 / 478.0) 117384	(10.17 , 1.00) (0.00 , N/A , 0.0)	995.9 321.7	0.0196 123.1 78.2	5.2116 [5.0000]	104.2%			
NMeFOSA	(512.0 / 219.0) 4388734 (512.0 / 169.0) 3046364	(10.60 , 1.00) (0.00 , N/A , 0.0)	1107.0 1165.2	0.6941 102.0 103.7	22.7295 [20.0000]	113.6%			
NEIFOSA	(526.0 / 219.0) 4308135 (526.0 / 169.0) 4455666	(10.69 , 1.00) (0.00 , N/A , -0.1)	1485.5 1443.3	1.0342 103.0 100.3	20.0812 [20.0000]	100.4%			
NMeFOSAA	(570.0 / 419.0) 913989 (570.0 / 483.0) 514779	(9.48 , 1.00) (0.01 , N/A , 0.2)	486.1 455.0	0.5632 112.9 108.9	4.4930 [5.0000]	89.9%			
NEIFOSAA	(584.0 / 419.0) 868107 (584.0 / 526.0) 545275	(9.67 , 1.00) (0.00 , N/A , -0.1)	721.6 550.7	0.6281 104.6 114.2	5.0979 [5.0000]	102.0%			
NMeFOSE	(616.0 / 59.0) 1027368	(10.57 , 1.00) (0.00 , N/A , 0.0)	1641.9	N/A 0.0 0.0	19.5943 [20.0000]	98.0%			
NEtFOSE	(630.0 / 59.0) 184152	(10.67 , 1.00) (0.01 , N/A , 0.0)	1478.2	N/A 0.0 0.0	23.5147 [20.0000]	117.6%			
HFPO-DA	(285.0 / 169.0) 1537892 (285.0 / 185.0) 4126798	(6.45 , 1.00) (0.00 , N/A , 0.1)	676.2 788.2	2.6834 97.5 100.4	9.6867 [10.0000]	96.9%			
ADONA	(377.0 / 85.0) 6459496 (377.0 / 251.0) 786510	(7.36 , 1.14) (N/A , -0.03 , 0.1)	804.3 587.7	0.1218 105.8 110.3	9.5014 [9.4270]	100.8%			
9CI-Pf3ONS	(531.0 / 351.0) 15474146 (533.0 / 353.0) 4740886	(9.71 , 1.50) (N/A , -0.01 , 0.2)	676.0 706.1	0.3064 95.8 97.6	8.6723 [9.3325]	92.9%			
11CI-PF3OUDS	(631.0 / 451.0) 8306531 (633.0 / 453.0) 2886057	(10.00 , 1.55) (N/A , -0.01 , 0.1)	1128.0 909.6	0.3474 118.7 97.5	8.9055 [9.4321]	94.4%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 208295 (241.0 / 117.0) 272794	(4.44 , 0.90) (N/A , -0.02 , 0.0)	503.8 377.6	1.3097 95.9 97.8	19.8047 [20.0000]	99.0%			
5:3FTCA	(341.0 / 236.7) 1191940 (341.0 / 217.0) 2017090	(6.75 , 1.11) (N/A , -0.03 , 0.0)	498.9 471.0	1.6923 101.8 105.0	20.0638 [20.0000]	100.3%			
7:3FTCA	(441.0 / 317.0) 1566707 (441.0 / 337.0) 1421241	(8.57 , 1.40) (N/A , -0.03 , 0.0)	446.3 492.5	0.9072 108.5 105.5	21.4076 [20.0000]	107.0%			
PFEESA	(315.0 / 135.0) 3287338 (315.0 / 83.0) 1041424	(6.56 , 1.08) (N/A , -0.03 , 0.1)	505.5 774.8	0.3168 102.9 102.6	8.5217 [8.9246]	95.5%			
PFMPA	(229.0 / 85.0) 902624	(4.16 , 0.84) (N/A , -0.02 , 0.0)	895.6	N/A 0.0 0.0	9.8962 [10.0000]	99.0%			
PFMBA	(279.0 / 85.0) 2440561	(5.33 , 1.08) (N/A , -0.03 , 0.0)	773.8	N/A 0.0 0.0	10.2215 [10.0000]	102.2%			
NFDHA	(295.0 / 201.0) 1991106 (295.0 / 85.0) 1730753	(5.98 , 0.98) (N/A , -0.04 , 0.0)	531.7 649.8	0.8692 100.1 96.9	10.7517 [10.0000]	107.5%			
13C3_PFBA_IIS	(216.0 / 172.0) 277161	(3.66 , N/A) (N/A , -0.02 , N/A)	646.3	N/A	1.0253 [1.0000]	102.5% { 96.4% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 403972	(6.10 , N/A) (N/A , -0.04 , N/A)	523.1	N/A	1.0172 [1.0000]	101.7% { 98.6% }			
13C4_PFOA_IIS	(417.0 / 372.0) 395959	(7.86 , N/A) (N/A , -0.03 , N/A)	521.9	N/A	0.9912 [1.0000]	99.1% { 101.1% }			
13C5_PFNA_IIS	(468.0 / 423.0) 345972	(8.60 , N/A) (N/A , -0.03 , N/A)	342.8	N/A	1.0466 [1.0000]	104.7% { 100.8% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 400567	(9.28 , N/A) (N/A , -0.03 , N/A)	238.5	N/A	1.1218 [1.0000]	112.2% { 110.5% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 642146	(7.98 , N/A) (N/A , -0.03 , N/A)	539.0	N/A	0.9207 [1.0000]	92.1% { 97.7% }			
13C4_PFOS_IIS	(503.0 / 79.9) 612727	(9.42 , N/A) (N/A , -0.03 , N/A)	367.1	N/A	0.8886 [1.0000]	88.9% { 90.7% }			
13C4_PFBA_EIS	(217.0 / 172.0) 2248115	(3.66 , N/A) (N/A , -0.02 , N/A)	611.4	N/A	7.5480 [8.0000]	94.4% { 95.2% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1407061	(4.95 , N/A) (N/A , -0.02 , N/A)	572.9	N/A	3.8114 [4.0000]	95.3% { 98.9% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 850277	(6.10 , N/A) (N/A , -0.04 , N/A)	578.6	N/A	1.8924 [2.0000]	94.6% { 89.7% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 731496	(7.04 , N/A) (N/A , -0.03 , N/A)	432.6	N/A	1.8220 [2.0000]	91.1% { 91.3% }			
13C8_PFOA_EIS	(421.0 / 376.0) 837965	(7.86 , N/A) (N/A , -0.03 , N/A)	511.0	N/A	1.9313 [2.0000]	96.6% { 102.4% }			
13C9_PFNA_EIS	(472.0 / 427.0) 404102	(8.60 , N/A) (N/A , -0.04 , N/A)	409.8	N/A	1.0611 [1.0000]	106.1% { 107.9% }			
13C6_PFDA_EIS	(519.0 / 474.0) 474969	(9.28 , N/A) (N/A , -0.03 , N/A)	439.7	N/A	0.9064 [1.0000]	90.6% { 112.5% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 553206	(9.71 , N/A) (N/A , -0.02 , N/A)	730.5	N/A	0.8712 [1.0000]	87.1% { 86.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (Δ RT-[min], Δ RT- CV[min], Δ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 576030	(9.89 , N/A) (N/A , -0.01 , N/A)	435.5	N/A	0.8242 [1.0000]	82.4% { 91.3% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 418720	(10.13 , N/A) (N/A , 0.00 , N/A)	4733.0	N/A	0.9076 [1.0000]	90.8% { 94.6% }			
13C3_PFBs_EIS	(302.0 / 80.0) 2057085	(6.05 , N/A) (N/A , -0.04 , N/A)	510.7	N/A	1.9024 [2.0000]	95.1% { 95.5% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1168756	(7.98 , N/A) (N/A , -0.03 , N/A)	731.1	N/A	2.0363 [2.0000]	101.8% { 103.7% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1711806	(9.43 , N/A) (N/A , -0.03 , N/A)	210.7	N/A	2.1572 [2.0000]	107.9% { 92.7% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 437177	(5.77 , N/A) (N/A , -0.03 , N/A)	448.3	N/A	3.4331 [4.0000]	85.8% { 81.7% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 632826	(7.52 , N/A) (N/A , -0.03 , N/A)	629.1	N/A	3.9989 [4.0000]	100.0% { 93.1% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 568793	(8.94 , N/A) (N/A , -0.03 , N/A)	480.4	N/A	3.6458 [4.0000]	91.1% { 78.6% }			
13C8_PFOSA_EIS	(506.0 / 78.0) 2391665	(10.17 , N/A) (N/A , -0.01 , N/A)	622.1	N/A	2.2669 [2.0000]	113.3% { 95.1% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 443928	(10.60 , N/A) (N/A , -0.01 , N/A)	812.0	N/A	2.1697 [2.0000]	108.5% { 96.3% }			
D5_NEtFOSA_EIS	(531.0 / 169.0) 466821	(10.69 , N/A) (N/A , 0.00 , N/A)	691.0	N/A	2.5606 [2.0000]	128.0% { 94.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 979894	(9.48 , N/A) (N/A , -0.03 , N/A)	376.5	N/A	4.5139 [4.0000]	112.8% { 98.2% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 785438	(9.67 , N/A) (N/A , -0.02 , N/A)	369.5	N/A	4.2243 [4.0000]	105.6% { 108.7% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 928790	(10.57 , N/A) (N/A , -0.01 , N/A)	1161.7	N/A	28.3334 [20.0000]	141.7% { 96.6% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 413062	(10.66 , N/A) (N/A , 0.00 , N/A)	1219.4	N/A	31.1587 [20.0000]	155.8% { 98.7% }			S2,
13C3_HFPODA_EIS	(287.0 / 169.0) 2069197	(6.45 , N/A) (N/A , -0.03 , N/A)	757.8	N/A	8.2928 [8.0000]	103.7% { 99.8% }			

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 1633

Laboratory: APPL, LLC

Work Order: 22L0126

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Instrument ID: Saphira

Calibration: 2253011

Standard ID: 22L0448

Sequence: SB04022

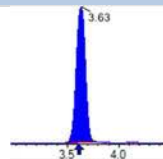
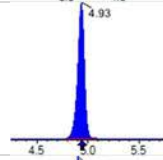
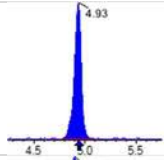
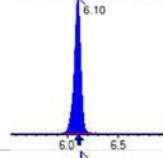
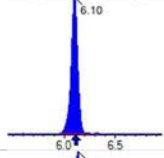
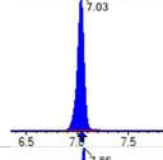
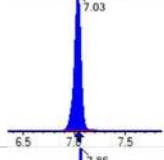
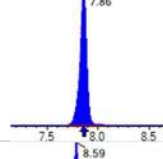
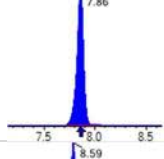
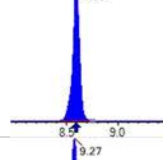
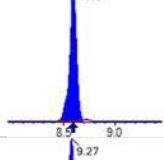
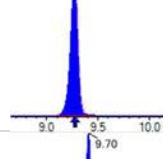
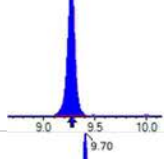
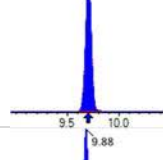
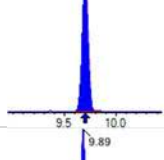
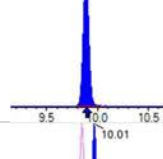
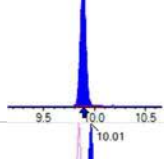
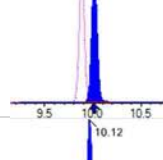
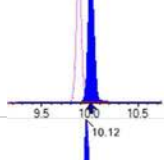
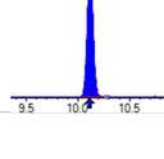
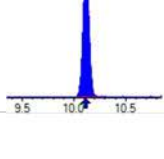
Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB04022-CCV1	PFBA	20.0	20.6	103	ng/mL	+/- 30.00%
	PFPEA	10.0	10.8	108	ng/mL	+/- 30.00%
	PFHXA	5.00	5.16	103	ng/mL	+/- 30.00%
	PFHPA	5.00	4.86	97.3	ng/mL	+/- 30.00%
	PFOA	5.00	5.26	105	ng/mL	+/- 30.00%
	PFNA	5.00	5.25	105	ng/mL	+/- 30.00%
	PFDA	5.00	5.89	118	ng/mL	+/- 30.00%
	PFUnA	5.00	5.20	104	ng/mL	+/- 30.00%
	PFDOA	5.00	4.87	97.4	ng/mL	+/- 30.00%
	PFTRDA	5.00	4.93	98.5	ng/mL	+/- 30.00%
	PFTEDA	5.00	4.65	92.9	ng/mL	+/- 30.00%
	PFBS	4.42	4.55	103	ng/mL	+/- 30.00%
	PFPEs	4.70	5.23	111	ng/mL	+/- 30.00%
	PFHXS	4.58	4.89	107	ng/mL	+/- 30.00%
	PFHPS	4.78	4.99	104	ng/mL	+/- 30.00%
	PFOS	4.65	4.77	103	ng/mL	+/- 30.00%
	PFNS	4.80	5.00	104	ng/mL	+/- 30.00%
	PFDS	4.82	5.27	109	ng/mL	+/- 30.00%
	PFDOS	4.85	5.95	123	ng/mL	+/- 30.00%
	4:2FTS	18.8	22.6	120	ng/mL	+/- 30.00%
	6:2FTS	19.0	21.4	113	ng/mL	+/- 30.00%
	8:2FTS	19.2	18.9	98.5	ng/mL	+/- 30.00%
	PFOSA	5.00	5.11	102	ng/mL	+/- 30.00%
	NMeFOSA	20.0	21.6	108	ng/mL	+/- 30.00%
	NEtFOSA	20.0	20.4	102	ng/mL	+/- 30.00%
	NMeFOSAA	5.00	4.93	98.5	ng/mL	+/- 30.00%
	NEtFOSAA	5.00	4.84	96.9	ng/mL	+/- 30.00%
	NMeFOSE	20.0	20.3	102	ng/mL	+/- 30.00%
	NEtFOSE	20.0	20.7	103	ng/mL	+/- 30.00%
	HFPO-DA	10.0	10.1	101	ng/mL	+/- 30.00%

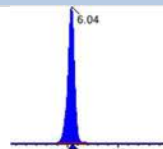
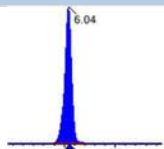
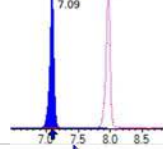
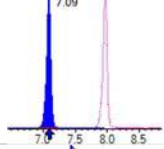
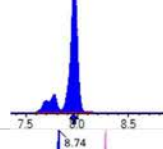
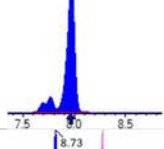
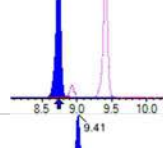
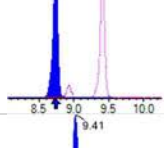
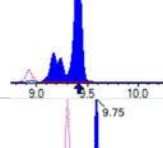
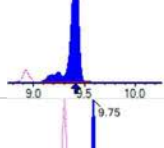
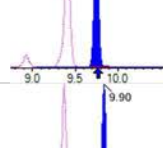
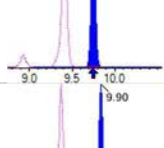
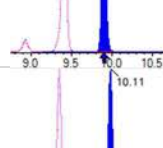
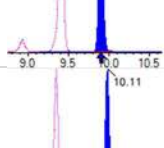
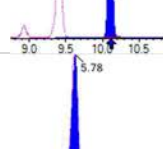
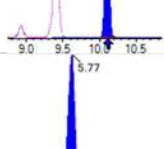
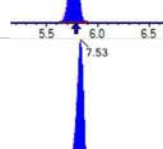
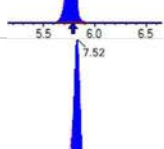
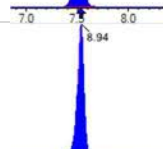
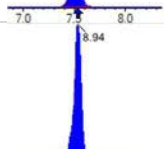

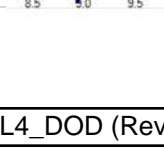
INITIAL AND CONTINUING CALIBRATION CHECK

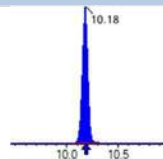
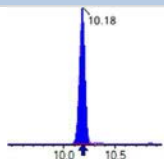
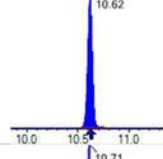
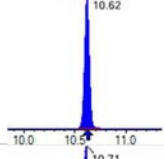
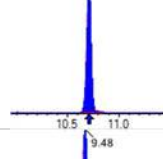
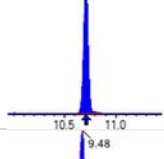
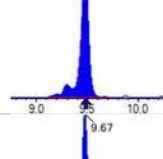
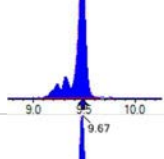
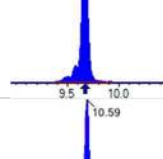
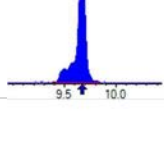
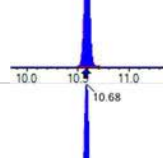
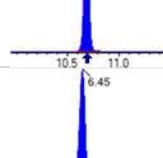
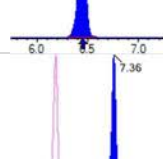
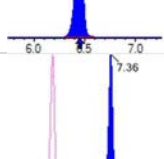
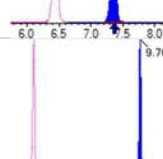
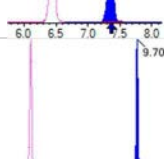
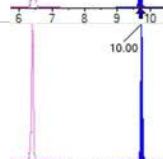
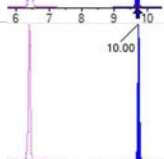

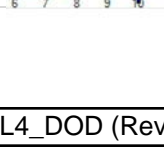
EPA 1633

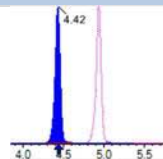
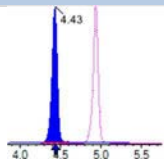
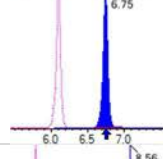
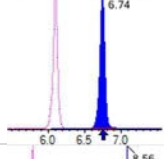
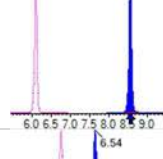
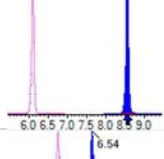
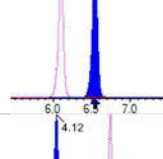
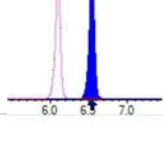
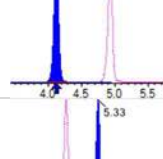
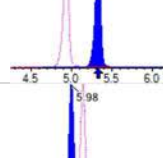
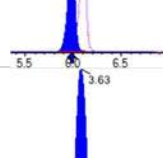
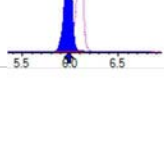
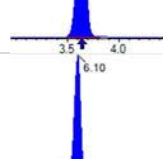
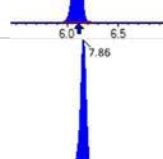
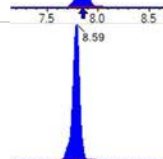

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Instrument ID:	Saphira	Calibration:	2253011
Standard ID:	22L0448	Sequence:	SB04022

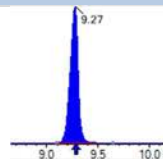
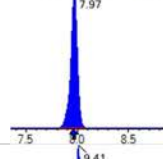
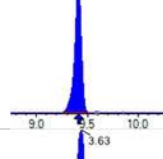
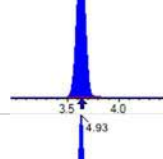
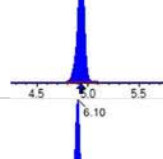
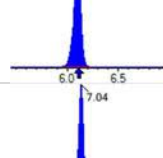
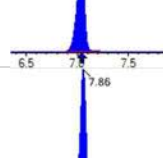
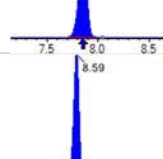
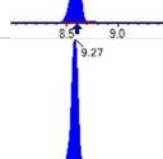
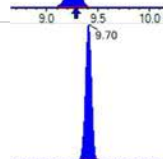

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB04022-CCV1	ADONA	9.45	10.5	111	ng/mL	+/- 30.00%
	PFEESA	8.90	9.59	108	ng/mL	+/- 30.00%
	PFMPA	10.0	9.37	93.7	ng/mL	+/- 30.00%
	PFMBA	10.0	10.1	101	ng/mL	+/- 30.00%
	NFDHA	10.0	9.13	91.3	ng/mL	+/- 30.00%
	9CL-PF3ONS	9.35	10.0	107	ng/mL	+/- 30.00%
	11CL-PF3OUDS	9.45	11.3	120	ng/mL	+/- 30.00%
	3:3FTCA	20.0	18.6	93.0	ng/mL	+/- 30.00%
	5:3FTCA	20.0	21.4	107	ng/mL	+/- 30.00%
	7:3FTCA	20.0	18.2	91.0	ng/mL	+/- 30.00%

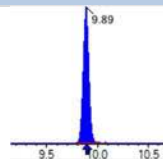
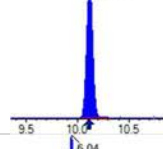
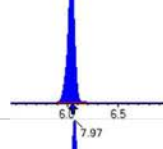
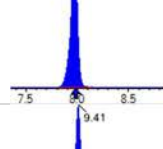
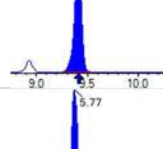
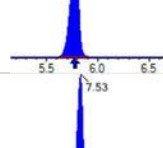
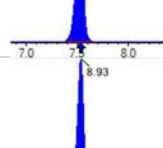
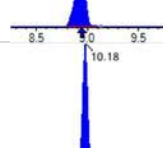
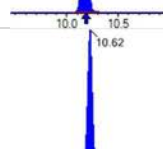
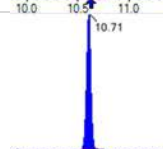
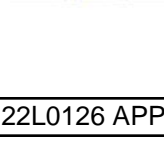
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 3748405	(3.63 , 1.00) (0.00 , N/A , 0.0)	527.2	N/A 0.0 0.0	20.6422 [20.0000]	103.2%			
PFPeA	(263.0 / 219.0) 3130791 (263.0 / 69.0) 33505	(4.93 , 1.00) (0.00 , N/A , 0.1)	568.4 342.1	N/A 0.0107 103.6 100.0	10.7506 [10.0000]	107.5%			
PFHxA	(313.0 / 269.0) 2060706 (313.0 / 119.0) 188563	(6.10 , 1.00) (0.00 , N/A , 0.2)	501.9 480.9	0.0915 94.0 100.0	5.1616 [5.0000]	103.2%			
PFHpA	(363.0 / 319.0) 1975091 (363.0 / 169.0) 556121	(7.03 , 1.00) (0.00 , N/A , 0.0)	516.1 614.4	0.2816 98.4 100.0	4.8639 [5.0000]	97.3%			
PFOA	(413.0 / 369.0) 2063857 (413.0 / 169.0) 693860	(7.86 , 1.00) (0.00 , N/A , 0.1)	577.8 476.4	0.3362 110.7 100.0	5.2615 [5.0000]	105.2%			
PFNA	(463.0 / 419.0) 1616223 (463.0 / 169.0) 322913	(8.59 , 1.00) (0.00 , N/A , 0.0)	573.3 380.8	0.1998 94.4 100.0	5.2528 [5.0000]	105.1%			
PFDA	(513.0 / 469.0) 2232438 (513.0 / 169.0) 202865	(9.27 , 1.00) (-0.01 , N/A , -0.1)	348.5 278.7	0.0909 98.6 100.0	5.8922 [5.0000]	117.8%			
PFUnA	(563.0 / 519.0) 2572521 (563.0 / 169.0) 252779	(9.70 , 1.00) (0.00 , N/A , 0.3)	616.7 414.2	0.0983 127.8 100.0	5.1972 [5.0000]	103.9%			
PFDoA	(613.0 / 569.0) 2700196 (613.0 / 169.0) 357694	(9.88 , 1.00) (0.00 , N/A , -0.1)	960.7 472.0	0.1325 98.3 100.0	4.8703 [5.0000]	97.4%			
PFTTrDA	(663.0 / 619.0) 2383454 (663.0 / 169.0) 464802	(10.01 , 1.01) (N/A , 0.00 , 0.2)	677.5 547.6	0.1950 89.5 100.0	4.9270 [5.0000]	98.5%			
PFTeDA	(713.0 / 669.0) 1778013 (713.0 / 169.0) 327869	(10.12 , 1.00) (0.00 , N/A , 0.1)	848.7 490.1	0.1844 93.4 100.0	4.6471 [5.0000]	92.9%			

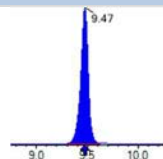




Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 2852638 (299.0 / 99.0) 1730195	(6.04 , 1.00) (0.00 , N/A , 0.0)	621.0 541.4	0.6065 92.3 100.0	4.5479 [4.4237]	102.8%			
PFPeS	(349.0 / 80.0) 5087584 (349.0 / 99.0) 1734423	(7.09 , 0.89) (N/A , 0.00 , 0.2)	697.2 582.1	0.3409 92.0 100.0	5.2305 [4.6919]	111.5%			
PFHxS	(399.0 / 80.0) 4191181 (399.0 / 99.0) 1309724	(7.97 , 1.00) (0.00 , N/A , 0.0)	645.5 809.7	0.3125 95.8 100.0	4.8923 [4.5549]	107.4%			
PFHpS	(449.0 / 80.0) 3875228 (449.0 / 99.0) 995908	(8.74 , 0.93) (N/A , 0.00 , 0.1)	594.6 518.1	0.2570 98.6 100.0	4.9882 [4.7570]	104.9%			
PFOS	(499.0 / 80.0) 4267819 (499.0 / 99.0) 1019025	(9.41 , 1.00) (0.00 , N/A , -0.2)	308.9 657.5	0.2388 114.8 100.0	4.7732 [4.6375]	102.9%			
PFNS	(549.0 / 80.0) 5066197 (549.0 / 99.0) 1371291	(9.75 , 1.04) (N/A , 0.00 , 0.0)	738.0 773.1	0.2707 113.7 100.0	4.9985 [4.7994]	104.1%			
PFDS	(599.0 / 80.0) 6452935 (599.0 / 99.0) 1513359	(9.90 , 1.05) (N/A , 0.00 , 0.1)	1189.0 864.5	0.2345 89.1 100.0	5.2656 [4.8155]	109.3%			
PFDoS	(699.0 / 80.0) 3431994 (699.0 / 99.0) 776369	(10.11 , 1.07) (N/A , 0.00 , 0.1)	738.8 683.1	0.2262 115.4 100.0	5.9469 [4.8478]	122.7%			
4:2FTS	(327.0 / 307.0) 9560352 (327.0 / 81.0) 5289167	(5.78 , 1.00) (0.00 , N/A , 0.2)	744.8 827.2	0.5532 77.3 100.0	22.6023 [18.6906]	120.9%			
6:2FTS	(427.0 / 407.0) 4998681 (427.0 / 81.0) 4154667	(7.53 , 1.00) (0.00 , N/A , 0.3)	759.3 888.0	0.8312 112.4 100.0	21.3834 [18.9808]	112.7%			
8:2FTS	(527.0 / 507.0) 4597396 (527.0 / 81.0) 3401386	(8.94 , 1.00) (0.00 , N/A , 0.1)	475.6 433.1	0.7399 120.9 100.0	18.9105 [19.1658]	98.7%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 5638575 (498.0 / 478.0) 109774	(10.18 , 1.00) (0.00 , N/A , -0.1)	1117.7 478.7	0.0195 93.3 100.0	5.1093 [5.0000]	102.2%			
NMeFOSA	(512.0 / 219.0) 3888075 (512.0 / 169.0) 2743601	(10.62 , 1.00) (0.00 , N/A , 0.1)	1141.7 925.7	0.7056 102.0 100.0	21.5593 [20.0000]	107.8%			
NEIFOSA	(526.0 / 219.0) 3452480 (526.0 / 169.0) 3781061	(10.71 , 1.00) (0.00 , N/A , 0.1)	902.8 1018.5	1.0952 110.3 100.0	20.3776 [20.0000]	101.9%			
NMeFOSAA	(570.0 / 419.0) 1126538 (570.0 / 483.0) 559650	(9.48 , 1.00) (0.00 , N/A , -0.1)	446.6 336.6	0.4968 89.3 100.0	4.9255 [5.0000]	98.5%			
NEIFOSAA	(584.0 / 419.0) 1067023 (584.0 / 526.0) 628662	(9.67 , 1.00) (0.00 , N/A , -0.1)	776.0 498.4	0.5892 99.3 100.0	4.8431 [5.0000]	96.9%			
NMeFOSE	(616.0 / 59.0) 1235424	(10.59 , 1.00) (0.01 , N/A , 0.0)	815.9	N/A 0.0 0.0	20.3411 [20.0000]	101.7%			
NEIFOSE	(630.0 / 59.0) 263511	(10.68 , 1.00) (0.01 , N/A , 0.0)	912.3	N/A 0.0 0.0	20.6537 [20.0000]	103.3%			
HFPO-DA	(285.0 / 169.0) 1530143 (285.0 / 185.0) 4108437	(6.45 , 1.00) (0.00 , N/A , 0.1)	568.3 736.0	2.6850 104.7 100.0	10.0895 [10.0000]	100.9%			
ADONA	(377.0 / 85.0) 6337817 (377.0 / 251.0) 751456	(7.36 , 1.14) (N/A , 0.00 , 0.2)	631.1 524.2	0.1186 96.4 100.0	10.4869 [9.4270]	111.2%			
9CI-PF3ONS	(531.0 / 351.0) 16570876 (533.0 / 353.0) 5455378	(9.70 , 1.50) (N/A , 0.00 , 0.0)	650.4 715.5	0.3292 104.2 100.0	10.0393 [9.3325]	107.6%			
11CI-PF3OUDS	(631.0 / 451.0) 10571026 (633.0 / 453.0) 3506273	(10.00 , 1.55) (N/A , 0.00 , 0.0)	1347.2 805.4	0.3317 107.1 100.0	11.3157 [9.4321]	120.0%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 186173 (241.0 / 117.0) 243498	(4.42 , 0.90) (N/A , 0.00 , 0.0)	698.8 429.4	1.3079 99.4 100.0	18.5994 [20.0000]	93.0%			
5:3FTCA	(341.0 / 236.7) 1309352 (341.0 / 217.0) 2022637	(6.75 , 1.11) (N/A , 0.00 , 0.1)	537.1 478.0	1.5448 86.1 100.0	21.4274 [20.0000]	107.1%			
7:3FTCA	(441.0 / 317.0) 1448689 (441.0 / 337.0) 1231288	(8.56 , 1.40) (N/A , 0.00 , 0.0)	415.9 400.2	0.8499 103.1 100.0	18.1994 [20.0000]	91.0%			
PFEESA	(315.0 / 135.0) 3514442 (315.0 / 83.0) 1043901	(6.54 , 1.07) (N/A , 0.00 , 0.1)	816.5 751.4	0.2970 97.4 100.0	9.5878 [8.9246]	107.4%			
PFMPA	(229.0 / 85.0) 796591	(4.12 , 0.84) (N/A , 0.00 , 0.0)	883.0	N/A 0.0 0.0	9.3661 [10.0000]	93.7%			
PFMBA	(279.0 / 85.0) 2437789	(5.33 , 1.08) (N/A , 0.00 , 0.0)	662.0	N/A 0.0 0.0	10.0512 [10.0000]	100.5%			
NFDHA	(295.0 / 201.0) 1788363 (295.0 / 85.0) 1572889	(5.98 , 0.98) (N/A , 0.00 , 0.1)	733.4 648.3	0.8795 102.4 100.0	9.1262 [10.0000]	91.3%			
13C3_PFBA_IIS	(216.0 / 172.0) 202118	(3.63 , N/A) (N/A , 0.00 , N/A)	594.0	N/A	0.9385 [1.0000]	93.9% { 100.0% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 389826	(6.10 , N/A) (N/A , 0.00 , N/A)	625.1	N/A	1.0269 [1.0000]	102.7% { 100.0% }			
13C4_PFOA_IIS	(417.0 / 372.0) 383585	(7.86 , N/A) (N/A , 0.00 , N/A)	542.8	N/A	1.0627 [1.0000]	106.3% { 100.0% }			
13C5_PFNA_IIS	(468.0 / 423.0) 291582	(8.59 , N/A) (N/A , 0.00 , N/A)	338.6	N/A	0.9916 [1.0000]	99.2% { 100.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 348362	(9.27, N/A) (N/A, 0.00, N/A)	266.2	N/A	1.0226 [1.0000]	102.3% { 100.0% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 633077	(7.97, N/A) (N/A, 0.00, N/A)	841.7	N/A	1.0463 [1.0000]	104.6% { 100.0% }			
13C4_PFOS_IIS	(503.0 / 79.9) 635755	(9.41, N/A) (N/A, 0.00, N/A)	491.9	N/A	0.9860 [1.0000]	98.6% { 100.0% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1554828	(3.63, N/A) (N/A, 0.00, N/A)	572.8	N/A	7.6622 [8.0000]	95.8% { 100.0% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1226784	(4.93, N/A) (N/A, 0.00, N/A)	541.4	N/A	4.1713 [4.0000]	104.3% { 100.0% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 804635	(6.10, N/A) (N/A, 0.00, N/A)	558.5	N/A	2.0171 [2.0000]	100.9% { 100.0% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 775033	(7.04, N/A) (N/A, 0.00, N/A)	510.7	N/A	2.2365 [2.0000]	111.8% { 100.0% }			
13C8_PFOA_EIS	(421.0 / 376.0) 736438	(7.86, N/A) (N/A, 0.00, N/A)	609.1	N/A	1.8765 [2.0000]	93.8% { 100.0% }			
13C9_PFNA_EIS	(472.0 / 427.0) 318800	(8.59, N/A) (N/A, 0.00, N/A)	370.4	N/A	1.0523 [1.0000]	105.2% { 100.0% }			
13C6_PFDA_EIS	(519.0 / 474.0) 382065	(9.27, N/A) (N/A, 0.00, N/A)	431.7	N/A	0.9080 [1.0000]	90.8% { 100.0% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 542382	(9.70, N/A) (N/A, 0.00, N/A)	562.2	N/A	1.0481 [1.0000]	104.8% { 100.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 578511	(9.89 , N/A) (N/A , 0.00 , N/A)	541.1	N/A	1.1202 [1.0000]	112.0% { 100.0% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 378234	(10.12 , N/A) (N/A , 0.00 , N/A)	744.9	N/A	1.1559 [1.0000]	115.6% { 100.0% }			
13C3_PFBs_EIS	(302.0 / 80.0) 1966420	(6.04 , N/A) (N/A , 0.00 , N/A)	546.6	N/A	2.0523 [2.0000]	102.6% { 100.0% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 989217	(7.97 , N/A) (N/A , 0.00 , N/A)	764.6	N/A	1.9067 [2.0000]	95.3% { 100.0% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1535696	(9.41 , N/A) (N/A , 0.00 , N/A)	174.4	N/A	2.0044 [2.0000]	100.2% { 100.0% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 497561	(5.77 , N/A) (N/A , 0.00 , N/A)	530.5	N/A	4.5965 [4.0000]	114.9% { 100.0% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 582402	(7.53 , N/A) (N/A , 0.00 , N/A)	762.7	N/A	4.0663 [4.0000]	101.7% { 100.0% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 623419	(8.93 , N/A) (N/A , 0.00 , N/A)	413.4	N/A	3.4530 [4.0000]	86.3% { 100.0% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 1903234	(10.18 , N/A) (N/A , 0.00 , N/A)	840.1	N/A	2.1284 [2.0000]	106.4% { 100.0% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 371304	(10.62 , N/A) (N/A , 0.00 , N/A)	807.3	N/A	2.1957 [2.0000]	109.8% { 100.0% }			
D5_NEtFOSA_EIS	(531.0 / 169.0) 341618	(10.71 , N/A) (N/A , 0.00 , N/A)	732.0	N/A	2.2056 [2.0000]	110.3% { 100.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 1008156	(9.47 , N/A) (N/A , 0.00 , N/A)	302.3	N/A	4.1822 [4.0000]	104.6% { 100.0% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 893968	(9.67 , N/A) (N/A , 0.00 , N/A)	117.8	N/A	4.6642 [4.0000]	116.6% { 100.0% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 994913	(10.58 , N/A) (N/A , 0.00 , N/A)	1240.2	N/A	26.9294 [20.0000]	134.6% { 100.0% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 469975	(10.68 , N/A) (N/A , 0.00 , N/A)	1475.1	N/A	27.5863 [20.0000]	137.9% { 100.0% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1747801	(6.45 , N/A) (N/A , 0.00 , N/A)	731.9	N/A	7.8321 [8.0000]	97.9% { 100.0% }			

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 1633

Laboratory: APPL, LLC

Work Order: 22L0126

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Instrument ID: Saphira

Calibration: 2253011

Standard ID: 22L0448

Sequence: SB04022

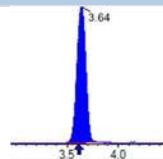
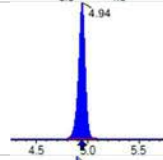
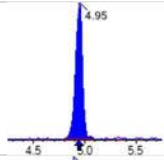
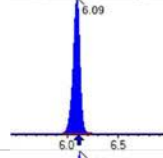
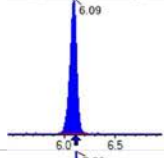
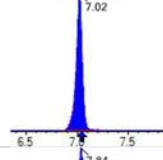
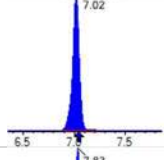
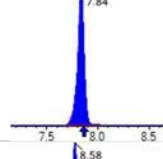
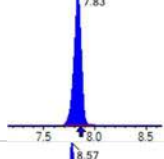
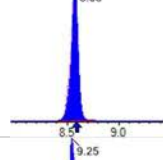
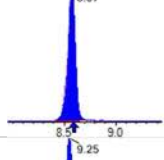
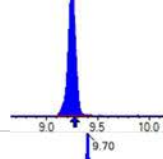
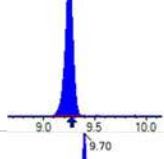
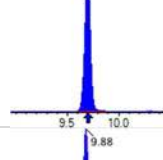
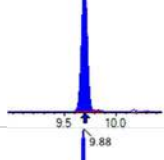
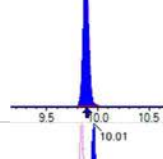
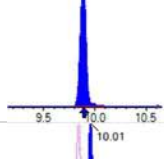
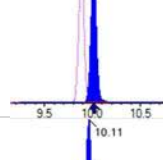
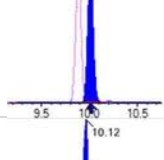
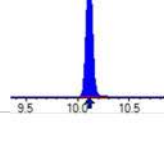
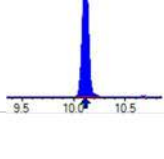
Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB04022-CCV2	PFBA	20.0	20.6	103	ng/mL	+/- 30.00%
	PFPEA	10.0	9.76	97.6	ng/mL	+/- 30.00%
	PFHXA	5.00	4.78	95.6	ng/mL	+/- 30.00%
	PFHPA	5.00	5.19	104	ng/mL	+/- 30.00%
	PFOA	5.00	5.46	109	ng/mL	+/- 30.00%
	PFNA	5.00	5.47	109	ng/mL	+/- 30.00%
	PFDA	5.00	4.76	95.2	ng/mL	+/- 30.00%
	PFUnA	5.00	5.20	104	ng/mL	+/- 30.00%
	PFDOA	5.00	5.44	109	ng/mL	+/- 30.00%
	PFTRDA	5.00	5.43	109	ng/mL	+/- 30.00%
	PFTEDA	5.00	4.82	96.4	ng/mL	+/- 30.00%
	PFBS	4.42	4.57	103	ng/mL	+/- 30.00%
	PFPEs	4.70	5.50	117	ng/mL	+/- 30.00%
	PFHXS	4.58	5.05	110	ng/mL	+/- 30.00%
	PFHPS	4.78	4.69	98.1	ng/mL	+/- 30.00%
	PFOS	4.65	4.90	105	ng/mL	+/- 30.00%
	PFNS	4.80	5.50	115	ng/mL	+/- 30.00%
	PFDS	4.82	5.70	118	ng/mL	+/- 30.00%
	PFDOS	4.85	6.35	131	ng/mL	+/- 30.00%
	PFDOS	4.85	6.35	131	ng/mL	+/- 30.00%
	4:2FTS	18.8	19.7	105	ng/mL	+/- 30.00%
	6:2FTS	19.0	23.2	122	ng/mL	+/- 30.00%
	8:2FTS	19.2	20.8	108	ng/mL	+/- 30.00%
	PFOSA	5.00	5.17	103	ng/mL	+/- 30.00%
	NMeFOSA	20.0	20.2	101	ng/mL	+/- 30.00%
	NEtFOSA	20.0	19.9	99.5	ng/mL	+/- 30.00%
	NMeFOSAA	5.00	5.24	105	ng/mL	+/- 30.00%
	NEtFOSAA	5.00	4.43	88.7	ng/mL	+/- 30.00%
	NMeFOSE	20.0	21.5	108	ng/mL	+/- 30.00%
	NEtFOSE	20.0	22.7	114	ng/mL	+/- 30.00%

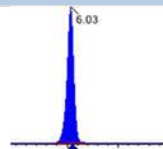
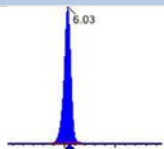
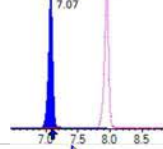
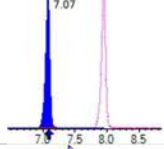
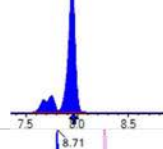
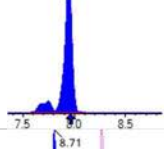
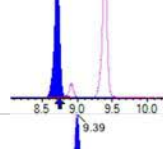
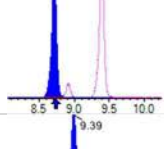
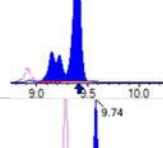
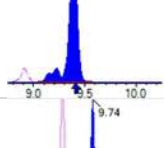
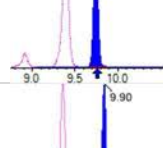
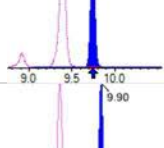
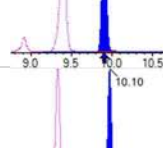
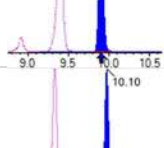
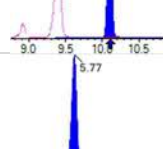
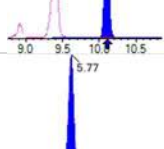
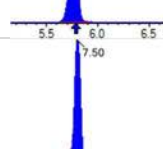
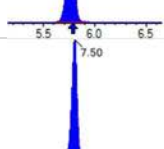
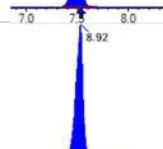
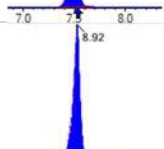

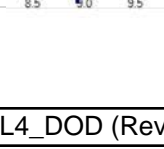
INITIAL AND CONTINUING CALIBRATION CHECK

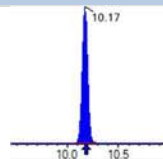
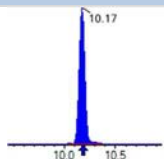
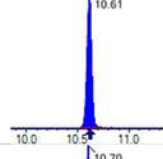
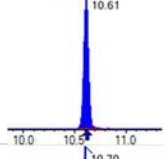
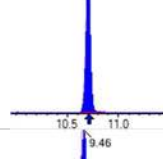
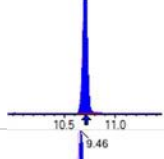
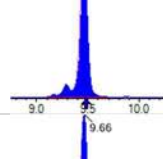
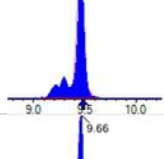
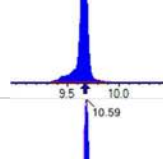
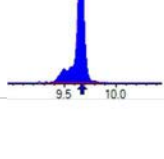
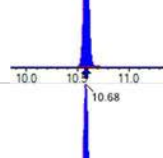
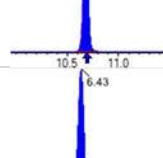
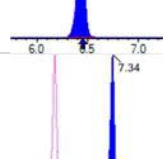
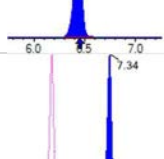
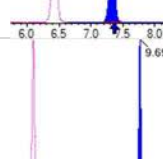
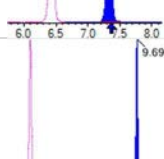
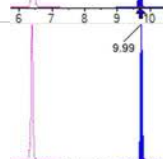
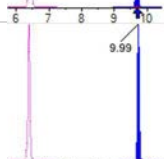

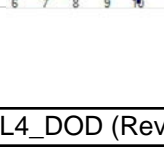
EPA 1633

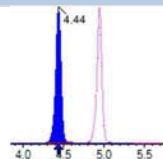
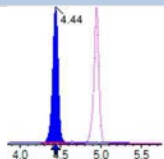
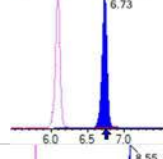
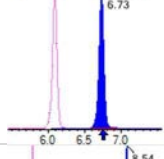
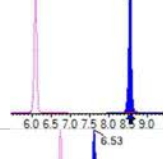
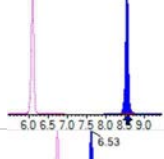
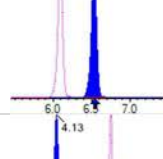
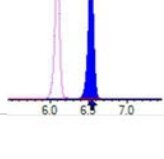
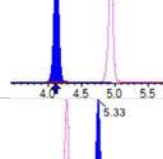
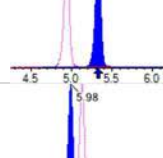
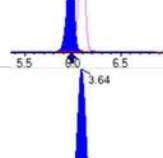
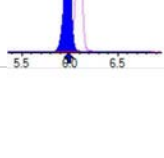
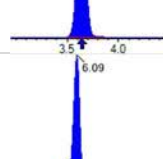
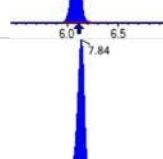
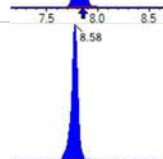

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Instrument ID:	Saphira	Calibration:	2253011
Standard ID:	22L0448	Sequence:	SB04022

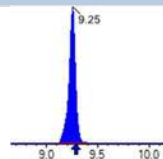
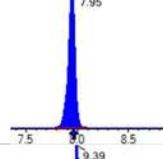
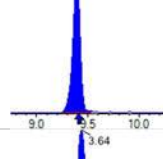
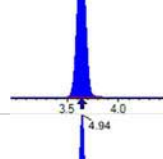
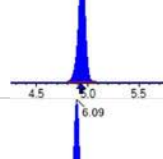
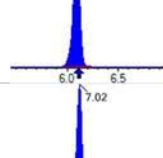
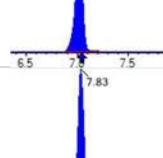
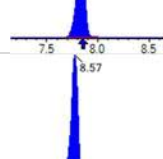
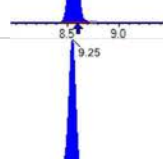
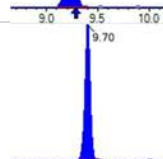

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB04022-CCV2	HFPO-DA	10.0	10.4	104	ng/mL	+/- 30.00%
	ADONA	9.45	10.6	112	ng/mL	+/- 30.00%
	PFEESA	8.90	8.59	96.5	ng/mL	+/- 30.00%
	PFMPA	10.0	9.06	90.6	ng/mL	+/- 30.00%
	PFMBA	10.0	10.1	101	ng/mL	+/- 30.00%
	NFDHA	10.0	9.18	91.8	ng/mL	+/- 30.00%
	9CL-PF3ONS	9.35	9.92	106	ng/mL	+/- 30.00%
	11CL-PF3OUDS	9.45	12.0	127	ng/mL	+/- 30.00%
	3:3FTCA	20.0	17.4	87.1	ng/mL	+/- 30.00%
	5:3FTCA	20.0	19.1	95.7	ng/mL	+/- 30.00%
	7:3FTCA	20.0	16.7	83.6	ng/mL	+/- 30.00%

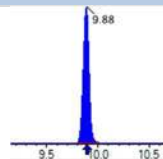
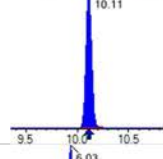
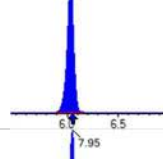
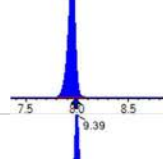
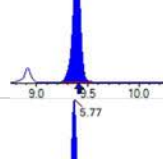
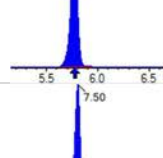
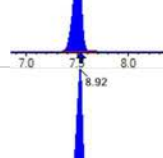
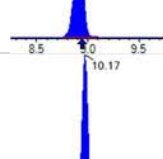
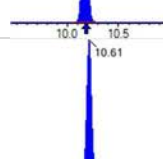
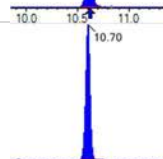
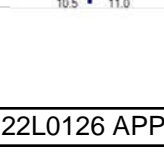
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 3763618	(3.64 , 1.00) (0.00 , N/A , 0.0)	608.8	N/A 0.0 0.0	20.5901 [20.0000]	103.0%			
PFPeA	(263.0 / 219.0) 2798914 (263.0 / 69.0) 30377	(4.94 , 1.00) (0.00 , N/A , -0.1)	558.4 255.6	0.0109 105.0 101.4	9.7630 [10.0000]	97.6%			
PFHxA	(313.0 / 269.0) 1983501 (313.0 / 119.0) 172023	(6.09 , 1.00) (0.00 , N/A , 0.1)	496.3 348.5	0.0867 89.1 94.8	4.7823 [5.0000]	95.6%			
PFHpA	(363.0 / 319.0) 1939191 (363.0 / 169.0) 540964	(7.02 , 1.00) (0.00 , N/A , 0.2)	578.5 478.1	0.2790 97.5 99.1	5.1901 [5.0000]	103.8%			
PFOA	(413.0 / 369.0) 2054030 (413.0 / 169.0) 604388	(7.84 , 1.00) (0.00 , N/A , 0.2)	567.2 732.1	0.2942 96.9 87.5	5.4598 [5.0000]	109.2%			
PFNA	(463.0 / 419.0) 1435103 (463.0 / 169.0) 291566	(8.58 , 1.00) (0.00 , N/A , 0.0)	478.9 335.9	0.2032 96.0 101.7	5.4712 [5.0000]	109.4%			
PFDA	(513.0 / 469.0) 1985423 (513.0 / 169.0) 200900	(9.25 , 1.00) (0.00 , N/A , -0.3)	454.7 577.9	0.1012 109.8 111.4	4.7576 [5.0000]	95.2%			
PFUnA	(563.0 / 519.0) 2173145 (563.0 / 169.0) 217695	(9.70 , 1.00) (0.00 , N/A , 0.1)	814.0 325.6	0.1002 130.2 101.9	5.1993 [5.0000]	104.0%			
PFDoA	(613.0 / 569.0) 2698880 (613.0 / 169.0) 327310	(9.88 , 1.00) (0.00 , N/A , -0.2)	982.0 293.9	0.1213 90.0 91.6	5.4448 [5.0000]	108.9%			
PFTTrDA	(663.0 / 619.0) 2347584 (663.0 / 169.0) 519250	(10.01 , 1.01) (N/A , 0.00 , 0.2)	832.0 446.8	0.2212 101.5 113.4	5.4278 [5.0000]	108.6%			
PFTeDA	(713.0 / 669.0) 1707824 (713.0 / 169.0) 326808	(10.11 , 1.00) (0.00 , N/A , -0.1)	1079.3 547.0	0.1914 97.0 103.8	4.8222 [5.0000]	96.4%			

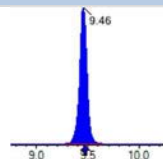




Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 2784260 (299.0 / 99.0) 1766640	(6.03 , 1.00) (0.00 , N/A , 0.0)	553.9 593.3	0.6345 96.5 104.6	4.5668 [4.4237]	103.2%			
PFPeS	(349.0 / 80.0) 4926783 (349.0 / 99.0) 1692663	(7.07 , 0.89) (N/A , -0.02 , -0.1)	628.8 637.8	0.3436 92.7 100.8	5.5006 [4.6919]	117.2%			
PFHxS	(399.0 / 80.0) 3985047 (399.0 / 99.0) 1338366	(7.95 , 1.00) (0.00 , N/A , 0.2)	843.5 1034.7	0.3358 103.0 107.5	5.0515 [4.5549]	110.9%			
PFHpS	(449.0 / 80.0) 3323023 (449.0 / 99.0) 918633	(8.71 , 0.93) (N/A , -0.02 , -0.1)	553.4 535.0	0.2764 106.1 107.6	4.6871 [4.7570]	98.5%			
PFOS	(499.0 / 80.0) 4000792 (499.0 / 99.0) 868737	(9.39 , 1.00) (0.00 , N/A , 0.3)	282.2 650.5	0.2171 104.4 90.9	4.9031 [4.6375]	105.7%			
PFNS	(549.0 / 80.0) 5084203 (549.0 / 99.0) 1253025	(9.74 , 1.04) (N/A , 0.00 , 0.0)	840.7 1045.8	0.2465 103.5 91.1	5.4968 [4.7994]	114.5%			
PFDS	(599.0 / 80.0) 6369795 (599.0 / 99.0) 1365605	(9.90 , 1.05) (N/A , 0.00 , 0.1)	1240.5 697.2	0.2144 81.5 91.4	5.6956 [4.8155]	118.3%			
PFDoS	(699.0 / 80.0) 3344030 (699.0 / 99.0) 707915	(10.10 , 1.08) (N/A , -0.01 , 0.0)	1385.1 919.8	0.2117 108.0 93.6	6.3495 [4.8478]	131.0%			QC,
4:2FTS	(327.0 / 307.0) 7919551 (327.0 / 81.0) 5538878	(5.77 , 1.00) (0.00 , N/A , 0.0)	659.6 656.3	0.6994 97.7 126.4	19.6941 [18.6906]	105.4%			
6:2FTS	(427.0 / 407.0) 5132521 (427.0 / 81.0) 3586107	(7.50 , 1.00) (0.00 , N/A , 0.1)	706.0 795.6	0.6987 94.5 84.1	23.1839 [18.9808]	122.1%			
8:2FTS	(527.0 / 507.0) 4708134 (527.0 / 81.0) 3285981	(8.92 , 1.00) (0.00 , N/A , -0.2)	497.9 510.4	0.6979 114.1 94.3	20.7891 [19.1658]	108.5%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 5855926 (498.0 / 478.0) 116695	(10.17 , 1.00) (0.00 , N/A , 0.0)	1320.7 398.1	0.0199 95.5 102.4	5.1677 [5.0000]	103.4%			
NMeFOSA	(512.0 / 219.0) 3410839 (512.0 / 169.0) 2595889	(10.61 , 1.00) (0.00 , N/A , 0.1)	1200.2 1605.2	0.7611 110.0 107.9	20.2069 [20.0000]	101.0%			
NEIFOSA	(526.0 / 219.0) 3298499 (526.0 / 169.0) 3620237	(10.70 , 1.00) (0.00 , N/A , 0.0)	1579.6 1552.8	1.0975 110.6 100.2	19.9028 [20.0000]	99.5%			
NMeFOSAA	(570.0 / 419.0) 1192643 (570.0 / 483.0) 608643	(9.46 , 1.00) (0.01 , N/A , 0.1)	455.7 474.3	0.5103 91.7 102.7	5.2387 [5.0000]	104.8%			
NEIFOSAA	(584.0 / 419.0) 888608 (584.0 / 526.0) 605649	(9.66 , 1.00) (0.01 , N/A , 0.2)	806.1 516.6	0.6816 114.9 115.7	4.4342 [5.0000]	88.7%			
NMeFOSE	(616.0 / 59.0) 1171717	(10.59 , 1.00) (0.01 , N/A , 0.0)	1310.2	N/A 0.0 0.0	21.5143 [20.0000]	107.6%			
NEtFOSE	(630.0 / 59.0) 267237	(10.68 , 1.00) (0.01 , N/A , 0.0)	1408.4	N/A 0.0 0.0	22.7429 [20.0000]	113.7%			
HFPO-DA	(285.0 / 169.0) 1569320 (285.0 / 185.0) 3972436	(6.43 , 1.00) (0.00 , N/A , 0.1)	729.5 709.1	2.5313 98.7 94.3	10.3792 [10.0000]	103.8%			
ADONA	(377.0 / 85.0) 6400449 (377.0 / 251.0) 735935	(7.34 , 1.14) (N/A , -0.02 , 0.0)	668.9 522.8	0.1150 93.4 97.0	10.6227 [9.4270]	112.7%			
9CI-Pf3ONS	(531.0 / 351.0) 16316723 (533.0 / 353.0) 5173475	(9.69 , 1.51) (N/A , 0.00 , 0.0)	832.2 778.5	0.3171 100.4 96.3	9.9153 [9.3325]	106.2%			
11CI-PF3OUDS	(631.0 / 451.0) 11218378 (633.0 / 453.0) 3642953	(9.99 , 1.55) (N/A , 0.00 , 0.0)	778.8 647.9	0.3247 104.8 97.9	12.0451 [9.4321]	127.7%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 171745 (241.0 / 117.0) 232245	(4.44 , 0.90) (N/A , 0.01 , 0.0)	640.2 422.8	1.3523 102.8 103.4	17.4293 [20.0000]	87.1%			
5:3FTCA	(341.0 / 236.7) 1215530 (341.0 / 217.0) 1947853	(6.73 , 1.11) (N/A , -0.01 , 0.2)	569.6 547.5	1.6025 89.3 103.7	19.1474 [20.0000]	95.7%			
7:3FTCA	(441.0 / 317.0) 1382527 (441.0 / 337.0) 1166492	(8.55 , 1.40) (N/A , -0.02 , 0.2)	453.3 476.1	0.8437 102.3 99.3	16.7181 [20.0000]	83.6%			
PFEESA	(315.0 / 135.0) 3269710 (315.0 / 83.0) 981540	(6.53 , 1.07) (N/A , -0.01 , 0.0)	807.9 575.8	0.3002 98.4 101.1	8.5863 [8.9246]	96.2%			
PFMPA	(229.0 / 85.0) 758879	(4.13 , 0.84) (N/A , 0.00 , 0.0)	885.7	N/A 0.0 0.0	9.0638 [10.0000]	90.6%			
PFMBA	(279.0 / 85.0) 2413862	(5.33 , 1.08) (N/A , 0.00 , 0.0)	717.9	N/A 0.0 0.0	10.1099 [10.0000]	101.1%			
NFDHA	(295.0 / 201.0) 1869863 (295.0 / 85.0) 1725931	(5.98 , 0.98) (N/A , -0.01 , 0.0)	645.9 730.5	0.9230 107.5 104.9	9.1849 [10.0000]	91.8%			
13C3_PFBA_IIS	(216.0 / 172.0) 197954	(3.64 , N/A) (N/A , 0.01 , N/A)	575.1	N/A	0.9192 [1.0000]	91.9% { 97.9% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 406475	(6.09 , N/A) (N/A , -0.01 , N/A)	547.7	N/A	1.0708 [1.0000]	107.1% { 104.3% }			
13C4_PFOA_IIS	(417.0 / 372.0) 367599	(7.84 , N/A) (N/A , -0.02 , N/A)	568.8	N/A	1.0184 [1.0000]	101.8% { 95.8% }			
13C5_PFNA_IIS	(468.0 / 423.0) 303948	(8.58 , N/A) (N/A , -0.02 , N/A)	473.9	N/A	1.0336 [1.0000]	103.4% { 104.2% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 336955	(9.25 , N/A) (N/A , -0.02 , N/A)	547.4	N/A	0.9892 [1.0000]	98.9% { 96.7% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 593877	(7.95 , N/A) (N/A , -0.02 , N/A)	609.2	N/A	0.9815 [1.0000]	98.1% { 93.8% }			
13C4_PFOS_IIS	(503.0 / 79.9) 516273	(9.39 , N/A) (N/A , -0.02 , N/A)	336.9	N/A	0.8007 [1.0000]	80.1% { 81.2% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1565089	(3.64 , N/A) (N/A , 0.01 , N/A)	713.2	N/A	7.8750 [8.0000]	98.4% { 100.7% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1207688	(4.94 , N/A) (N/A , 0.01 , N/A)	622.5	N/A	3.9382 [4.0000]	98.5% { 98.4% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 835925	(6.09 , N/A) (N/A , -0.01 , N/A)	581.9	N/A	2.0097 [2.0000]	100.5% { 103.9% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 713129	(7.02 , N/A) (N/A , -0.02 , N/A)	513.6	N/A	1.9736 [2.0000]	98.7% { 92.0% }			
13C8_PFOA_EIS	(421.0 / 376.0) 706306	(7.83 , N/A) (N/A , -0.02 , N/A)	444.1	N/A	1.8779 [2.0000]	93.9% { 95.9% }			
13C9_PFNA_EIS	(472.0 / 427.0) 271771	(8.57 , N/A) (N/A , -0.02 , N/A)	424.9	N/A	0.8605 [1.0000]	86.1% { 85.2% }			
13C6_PFDA_EIS	(519.0 / 474.0) 420824	(9.25 , N/A) (N/A , -0.02 , N/A)	318.4	N/A	1.0339 [1.0000]	103.4% { 110.1% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 457997	(9.70 , N/A) (N/A , -0.01 , N/A)	414.8	N/A	0.9150 [1.0000]	91.5% { 84.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 517223	(9.88 , N/A) (N/A , 0.00 , N/A)	647.7	N/A	1.0355 [1.0000]	103.5% { 89.4% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 350109	(10.11 , N/A) (N/A , 0.00 , N/A)	841.8	N/A	1.1062 [1.0000]	110.6% { 92.6% }			
13C3_PFBs_EIS	(302.0 / 80.0) 1911331	(6.03 , N/A) (N/A , -0.01 , N/A)	643.4	N/A	2.1265 [2.0000]	106.3% { 97.2% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 910924	(7.95 , N/A) (N/A , -0.02 , N/A)	750.7	N/A	1.8717 [2.0000]	93.6% { 92.1% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1401458	(9.39 , N/A) (N/A , -0.02 , N/A)	146.7	N/A	2.2526 [2.0000]	112.6% { 91.3% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 473030	(5.77 , N/A) (N/A , 0.00 , N/A)	538.1	N/A	4.6583 [4.0000]	116.5% { 95.1% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 551554	(7.50 , N/A) (N/A , -0.02 , N/A)	555.3	N/A	4.1051 [4.0000]	102.6% { 94.7% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 580744	(8.92 , N/A) (N/A , -0.01 , N/A)	418.1	N/A	3.4290 [4.0000]	85.7% { 93.2% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 1954250	(10.17 , N/A) (N/A , -0.01 , N/A)	825.5	N/A	2.6912 [2.0000]	134.6% { 102.7% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 347530	(10.61 , N/A) (N/A , -0.01 , N/A)	922.6	N/A	2.5308 [2.0000]	126.5% { 93.6% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 334168	(10.70 , N/A) (N/A , -0.01 , N/A)	615.6	N/A	2.6568 [2.0000]	132.8% { 97.8% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 1003520	(9.46 , N/A) (N/A , -0.02 , N/A)	327.2	N/A	5.1264 [4.0000]	128.2% { 99.5% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 813150	(9.66 , N/A) (N/A , -0.01 , N/A)	133.0	N/A	5.2244 [4.0000]	130.6% { 91.0% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 892153	(10.58 , N/A) (N/A , 0.00 , N/A)	883.2	N/A	29.7366 [20.0000]	148.7% { 89.7% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 432442	(10.67 , N/A) (N/A , 0.00 , N/A)	1207.5	N/A	31.2577 [20.0000]	156.3% { 92.0% }			S2,
13C3_HFPODA_EIS	(287.0 / 169.0) 1742513	(6.43 , N/A) (N/A , -0.01 , N/A)	794.7	N/A	7.4886 [8.0000]	93.6% { 99.7% }			

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 1633

Laboratory: APPL, LLC

Work Order: 22L0126

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Instrument ID: Saphira

Calibration: 2253011

Standard ID: 22L0448

Sequence: SB04022

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB04022-CCV3	PFBA	20.0	20.3	102	ng/mL	+/- 30.00%
	PFPEA	10.0	10.1	101	ng/mL	+/- 30.00%
	PFHXA	5.00	4.95	98.9	ng/mL	+/- 30.00%
	PFHPA	5.00	4.97	99.3	ng/mL	+/- 30.00%
	PFOA	5.00	4.99	99.9	ng/mL	+/- 30.00%
	PFNA	5.00	5.09	102	ng/mL	+/- 30.00%
	PFDA	5.00	5.70	114	ng/mL	+/- 30.00%
	PFUnA	5.00	5.07	101	ng/mL	+/- 30.00%
	PFDOA	5.00	5.40	108	ng/mL	+/- 30.00%
	PFTRDA	5.00	5.73	115	ng/mL	+/- 30.00%
	PFTEDA	5.00	4.56	91.3	ng/mL	+/- 30.00%
	PFBS	4.42	4.77	108	ng/mL	+/- 30.00%
	PFPEs	4.70	4.58	97.4	ng/mL	+/- 30.00%
	PFHXS	4.58	4.62	101	ng/mL	+/- 30.00%
	PFHPS	4.78	4.57	95.6	ng/mL	+/- 30.00%
	PFOS	4.65	4.72	102	ng/mL	+/- 30.00%
	PFNS	4.80	5.07	106	ng/mL	+/- 30.00%
	PFDS	4.82	5.27	109	ng/mL	+/- 30.00%
	PFDOS	4.85	5.33	110	ng/mL	+/- 30.00%
	4:2FTS	18.8	21.9	117	ng/mL	+/- 30.00%
	6:2FTS	19.0	22.4	118	ng/mL	+/- 30.00%
	8:2FTS	19.2	20.2	105	ng/mL	+/- 30.00%
	PFOSA	5.00	4.61	92.2	ng/mL	+/- 30.00%
	NMeFOSA	20.0	20.6	103	ng/mL	+/- 30.00%
	NEtFOSA	20.0	20.1	101	ng/mL	+/- 30.00%
	NMeFOSAA	5.00	5.35	107	ng/mL	+/- 30.00%
	NEtFOSAA	5.00	4.90	97.9	ng/mL	+/- 30.00%
	NMeFOSE	20.0	19.8	99.1	ng/mL	+/- 30.00%
	NEtFOSE	20.0	20.5	102	ng/mL	+/- 30.00%
	HFPO-DA	10.0	10.3	103	ng/mL	+/- 30.00%

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 1633

Laboratory: APPL, LLC

Work Order: 22L0126

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

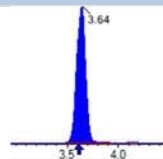
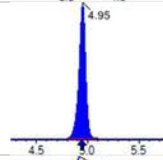
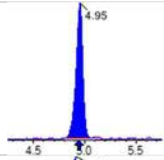
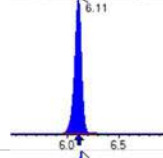
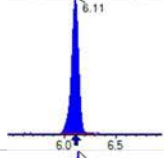
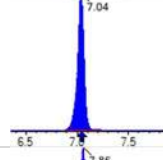
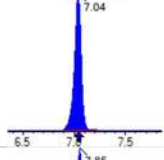
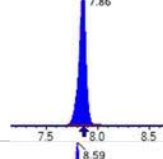
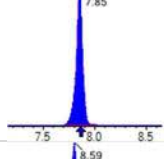
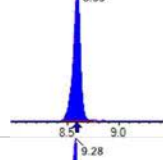
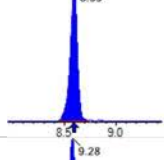
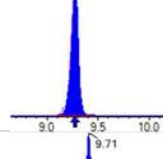
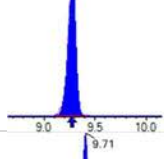
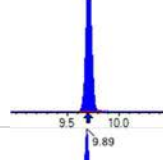
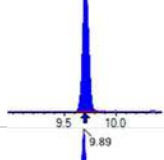
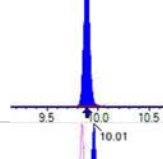
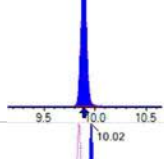
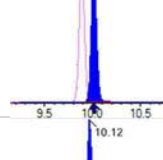
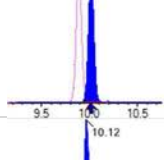
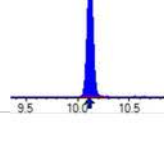
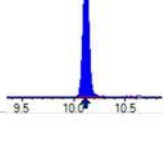
Instrument ID: Saphira

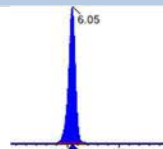
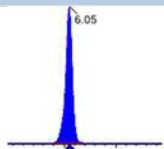
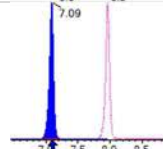
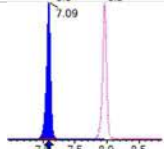
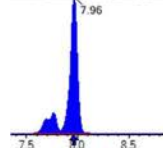
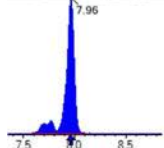
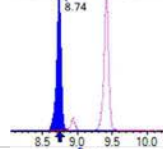
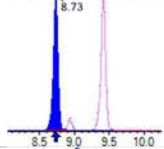
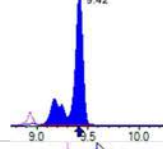
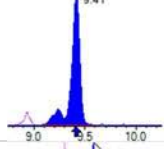
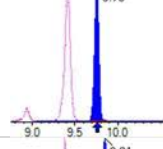
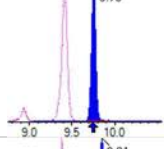
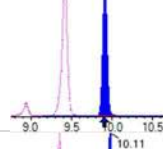
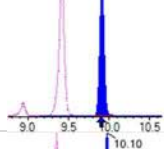
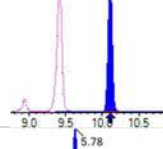
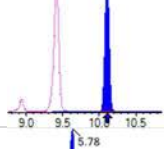
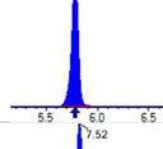
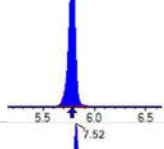
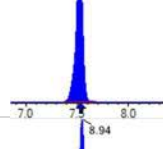
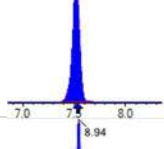
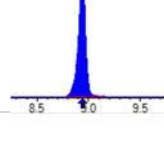
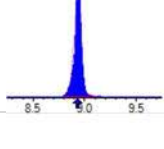
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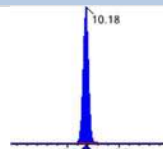
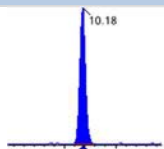
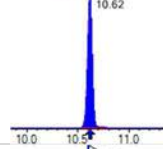
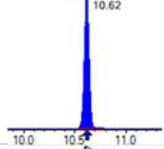
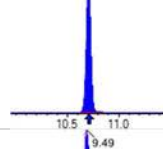
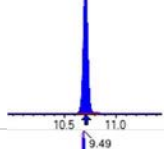
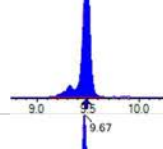
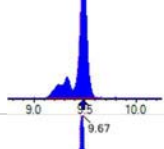
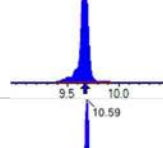
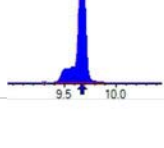
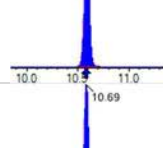
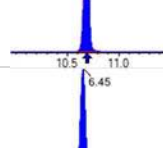
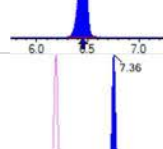
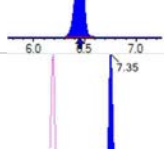
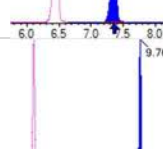
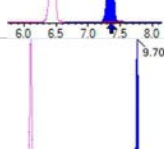
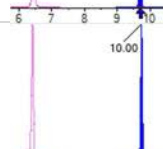
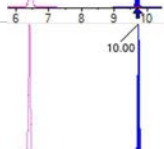

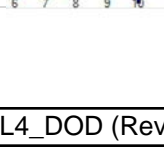
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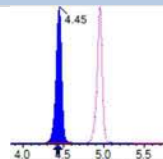
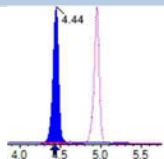
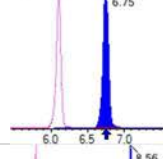
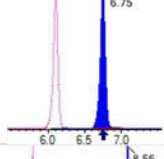
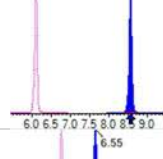
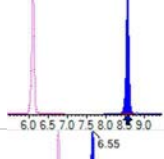
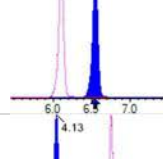
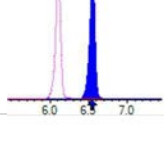
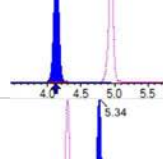
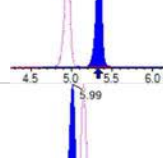
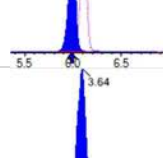
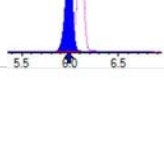
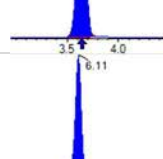
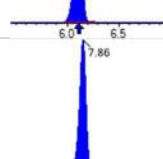
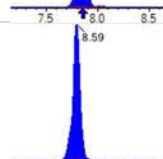

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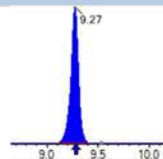
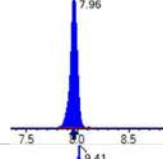
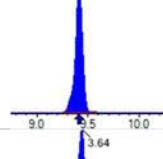
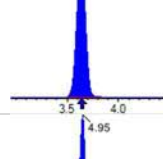
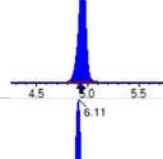
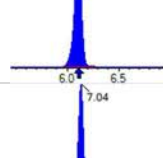
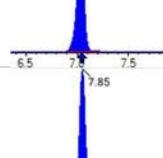
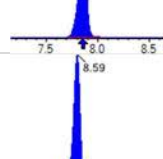
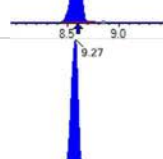
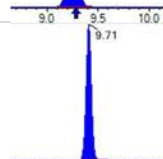

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB04022-CCV3	ADONA	9.45	10.9	116	ng/mL	+/- 30.00%
	PFEESA	8.90	9.09	102	ng/mL	+/- 30.00%
	PFMPA	10.0	9.40	94.0	ng/mL	+/- 30.00%
	PFMBA	10.0	10.0	100	ng/mL	+/- 30.00%
	NFDHA	10.0	9.66	96.6	ng/mL	+/- 30.00%
	9CL-PF3ONS	9.35	11.7	125	ng/mL	+/- 30.00%
	11CL-PF3OUDS	9.45	13.3	141	ng/mL	+/- 30.00%
	3:3FTCA	20.0	19.3	96.4	ng/mL	+/- 30.00%
	5:3FTCA	20.0	19.5	97.6	ng/mL	+/- 30.00%
	7:3FTCA	20.0	19.6	97.9	ng/mL	+/- 30.00%

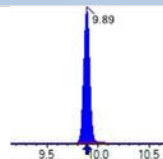
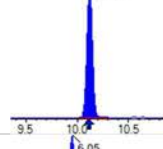
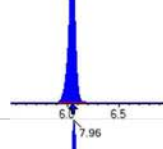
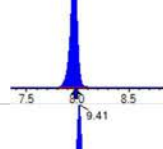
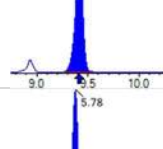
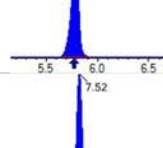
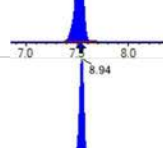
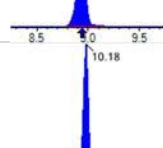
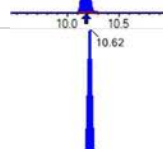
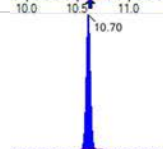
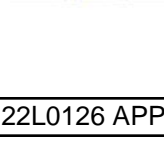
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 3216405	(3.64 , 1.00) (0.00 , N/A , 0.0)	465.0	N/A 0.0 0.0	20.3452 [20.0000]	101.7%			
PFPeA	(263.0 / 219.0) 2608417 (263.0 / 69.0) 29057	(4.95 , 1.00) (0.00 , N/A , -0.1)	583.6 256.3	0.0111 107.8 104.1	10.1222 [10.0000]	101.2%			
PFHxA	(313.0 / 269.0) 1769466 (313.0 / 119.0) 160653	(6.11 , 1.00) (0.00 , N/A , 0.0)	420.0 312.4	0.0908 93.3 99.2	4.9466 [5.0000]	98.9%			
PFHpA	(363.0 / 319.0) 1612684 (363.0 / 169.0) 476091	(7.04 , 1.00) (0.00 , N/A , 0.0)	474.1 494.6	0.2952 103.2 104.8	4.9669 [5.0000]	99.3%			
PFOA	(413.0 / 369.0) 1829823 (413.0 / 169.0) 605040	(7.86 , 1.00) (0.01 , N/A , 0.1)	615.0 534.9	0.3307 108.9 98.4	4.9937 [5.0000]	99.9%			
PFNA	(463.0 / 419.0) 1397744 (463.0 / 169.0) 280690	(8.59 , 1.00) (0.00 , N/A , 0.1)	417.8 522.2	0.2008 94.8 100.5	5.0864 [5.0000]	101.7%			
PFDA	(513.0 / 469.0) 2361288 (513.0 / 169.0) 191560	(9.28 , 1.00) (0.00 , N/A , 0.0)	377.1 407.0	0.0811 88.0 89.3	5.6979 [5.0000]	114.0%			
PFUnA	(563.0 / 519.0) 2554210 (563.0 / 169.0) 210520	(9.71 , 1.00) (0.00 , N/A , 0.1)	645.3 546.5	0.0824 107.2 83.9	5.0733 [5.0000]	101.5%			
PFDoA	(613.0 / 569.0) 2739639 (613.0 / 169.0) 337430	(9.89 , 1.00) (0.00 , N/A , 0.0)	1062.2 573.7	0.1232 91.4 93.0	5.3990 [5.0000]	108.0%			
PFTTrDA	(663.0 / 619.0) 2537749 (663.0 / 169.0) 452212	(10.01 , 1.01) (N/A , 0.00 , -0.1)	972.1 800.1	0.1782 81.8 91.4	5.7316 [5.0000]	114.6%			
PFTeDA	(713.0 / 669.0) 1818476 (713.0 / 169.0) 327245	(10.12 , 1.00) (0.00 , N/A , 0.1)	959.9 524.5	0.1800 91.2 97.6	4.5645 [5.0000]	91.3%			

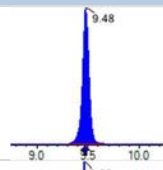




Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 2676532 (299.0 / 99.0) 1681759	(6.05 , 1.00) (0.00 , N/A , 0.0)	562.3 600.8	0.6283 95.6 103.6	4.7668 [4.4237]	107.8%			
PFPeS	(349.0 / 80.0) 4153459 (349.0 / 99.0) 1493850	(7.09 , 0.89) (N/A , 0.00 , -0.1)	666.7 670.2	0.3597 97.0 105.5	4.5782 [4.6919]	97.6%			
PFHxS	(399.0 / 80.0) 3695472 (399.0 / 99.0) 1204187	(7.96 , 1.00) (0.00 , N/A , 0.1)	713.8 702.2	0.3259 99.9 104.3	4.6248 [4.5549]	101.5%			
PFHpS	(449.0 / 80.0) 3585609 (449.0 / 99.0) 931542	(8.74 , 0.93) (N/A , 0.00 , 0.2)	653.2 612.8	0.2598 99.7 101.1	4.5686 [4.7570]	96.0%			
PFOS	(499.0 / 80.0) 4267349 (499.0 / 99.0) 788664	(9.42 , 1.00) (0.00 , N/A , 0.1)	344.0 488.6	0.1848 88.8 77.4	4.7243 [4.6375]	101.9%			
PFNS	(549.0 / 80.0) 5194949 (549.0 / 99.0) 1295783	(9.75 , 1.04) (N/A , 0.01 , 0.1)	687.1 510.4	0.2494 104.8 92.2	5.0736 [4.7994]	105.7%			
PFDS	(599.0 / 80.0) 6528040 (599.0 / 99.0) 1417578	(9.91 , 1.05) (N/A , 0.01 , 0.0)	1047.7 457.7	0.2172 82.5 92.6	5.2729 [4.8155]	109.5%			
PFDoS	(699.0 / 80.0) 3104961 (699.0 / 99.0) 662850	(10.11 , 1.07) (N/A , 0.00 , 0.1)	583.8 810.8	0.2135 108.9 94.4	5.3256 [4.8478]	109.9%			
4:2FTS	(327.0 / 307.0) 8788070 (327.0 / 81.0) 5253388	(5.78 , 1.00) (0.00 , N/A , 0.0)	673.3 625.4	0.5978 83.5 108.1	21.9232 [18.6906]	117.3%			
6:2FTS	(427.0 / 407.0) 5168242 (427.0 / 81.0) 3937489	(7.52 , 1.00) (0.00 , N/A , 0.3)	667.0 813.7	0.7619 103.1 91.7	22.3913 [18.9808]	118.0%			
8:2FTS	(527.0 / 507.0) 5217261 (527.0 / 81.0) 4107528	(8.94 , 1.00) (0.00 , N/A , 0.0)	471.7 641.9	0.7873 128.7 106.4	20.2189 [19.1658]	105.5%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 5541694 (498.0 / 478.0) 131640	(10.18 , 1.00) (0.00 , N/A , 0.2)	1471.7 358.1	0.0238 113.8 122.0	4.6122 [5.0000]	92.2%			
NMeFOSA	(512.0 / 219.0) 3505022 (512.0 / 169.0) 2584707	(10.62 , 1.00) (0.00 , N/A , 0.1)	925.8 791.7	0.7374 106.6 104.5	20.5584 [20.0000]	102.8%			
NEIFOSA	(526.0 / 219.0) 3580195 (526.0 / 169.0) 3741214	(10.71 , 1.00) (0.00 , N/A , 0.1)	1072.0 1237.5	1.0450 105.3 95.4	20.1426 [20.0000]	100.7%			
NMeFOSAA	(570.0 / 419.0) 1230660 (570.0 / 483.0) 580981	(9.49 , 1.00) (0.01 , N/A , 0.1)	531.1 394.7	0.4721 84.8 95.0	5.3548 [5.0000]	107.1%			
NEIFOSAA	(584.0 / 419.0) 1127879 (584.0 / 526.0) 680066	(9.67 , 1.00) (0.01 , N/A , -0.3)	912.9 569.5	0.6030 101.6 102.3	4.8964 [5.0000]	97.9%			
NMeFOSE	(616.0 / 59.0) 1141007	(10.59 , 1.00) (0.01 , N/A , 0.0)	867.4	N/A 0.0 0.0	19.8189 [20.0000]	99.1%			
NEtFOSE	(630.0 / 59.0) 261736	(10.69 , 1.00) (0.01 , N/A , 0.0)	1427.5	N/A 0.0 0.0	20.4876 [20.0000]	102.4%			
HFPO-DA	(285.0 / 169.0) 1414695 (285.0 / 185.0) 3564100	(6.45 , 1.00) (0.00 , N/A , 0.1)	491.3 685.6	2.5193 98.3 93.8	10.3310 [10.0000]	103.3%			
ADONA	(377.0 / 85.0) 5968144 (377.0 / 251.0) 672621	(7.36 , 1.14) (N/A , 0.00 , 0.0)	753.6 543.9	0.1127 91.6 95.1	10.9368 [9.4270]	116.0%			
9CI-Pf3ONS	(531.0 / 351.0) 17444138 (533.0 / 353.0) 5192921	(9.70 , 1.50) (N/A , 0.01 , 0.0)	635.2 627.3	0.2977 94.2 90.4	11.7044 [9.3325]	125.4%			
11CI-PF3OUDS	(631.0 / 451.0) 11207529 (633.0 / 453.0) 3318662	(10.00 , 1.55) (N/A , 0.00 , 0.0)	1754.7 970.4	0.2961 95.6 89.3	13.2866 [9.4321]	140.9%			QC,

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (Δ RT-I[min], Δ RT- CV[min], Δ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 170824 (241.0 / 117.0) 226229	(4.45 , 0.90) (N/A , 0.02 , 0.0)	687.2 365.4	1.3243 100.7 101.3	19.2863 [20.0000]	96.4%			
5:3FTCA	(341.0 / 236.7) 1069151 (341.0 / 217.0) 1826856	(6.75 , 1.10) (N/A , 0.00 , -0.1)	576.7 535.0	1.7087 95.2 110.6	19.5273 [20.0000]	97.6%			
7:3FTCA	(441.0 / 317.0) 1396450 (441.0 / 337.0) 1185351	(8.56 , 1.40) (N/A , 0.00 , 0.0)	396.6 421.0	0.8488 102.9 99.9	19.5793 [20.0000]	97.9%			
PFEESA	(315.0 / 135.0) 2986323 (315.0 / 83.0) 880075	(6.55 , 1.07) (N/A , 0.00 , -0.2)	586.1 785.7	0.2947 96.6 99.2	9.0927 [8.9246]	101.9%			
PFMPA	(229.0 / 85.0) 707793	(4.13 , 0.83) (N/A , 0.00 , 0.0)	902.9	N/A 0.0 0.0	9.4048 [10.0000]	94.0%			
PFMBA	(279.0 / 85.0) 2150363	(5.34 , 1.08) (N/A , 0.01 , 0.0)	679.6	N/A 0.0 0.0	10.0196 [10.0000]	100.2%			
NFDHA	(295.0 / 201.0) 1695395 (295.0 / 85.0) 1617916	(5.99 , 0.98) (N/A , 0.01 , 0.1)	537.6 665.5	0.9543 111.1 108.5	9.6560 [10.0000]	96.6%			
13C3_PFBA_IIS	(216.0 / 172.0) 171484	(3.64 , N/A) (N/A , 0.01 , N/A)	503.3	N/A	0.7963 [1.0000]	79.6% { 84.8% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 342709	(6.11 , N/A) (N/A , 0.01 , N/A)	468.4	N/A	0.9028 [1.0000]	90.3% { 87.9% }			
13C4_PFOA_IIS	(417.0 / 372.0) 354200	(7.86 , N/A) (N/A , 0.00 , N/A)	564.8	N/A	0.9812 [1.0000]	98.1% { 92.3% }			
13C5_PFNA_IIS	(468.0 / 423.0) 293101	(8.59 , N/A) (N/A , -0.01 , N/A)	537.1	N/A	0.9967 [1.0000]	99.7% { 100.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (Δ RT-[min], Δ RT- CV[min], Δ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 372248	(9.27, N/A) (N/A, 0.00, N/A)	449.8	N/A	1.0928 [1.0000]	109.3% { 106.9% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 559742	(7.96, N/A) (N/A, 0.00, N/A)	730.8	N/A	0.9251 [1.0000]	92.5% { 88.4% }			
13C4_PFOS_IIS	(503.0 / 79.9) 571112	(9.41, N/A) (N/A, 0.00, N/A)	429.9	N/A	0.8857 [1.0000]	88.6% { 89.8% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1353630	(3.64, N/A) (N/A, 0.01, N/A)	594.6	N/A	7.8623 [8.0000]	98.3% { 87.1% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1085547	(4.95, N/A) (N/A, 0.02, N/A)	546.2	N/A	4.1985 [4.0000]	105.0% { 88.5% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 720955	(6.11, N/A) (N/A, 0.01, N/A)	433.6	N/A	2.0558 [2.0000]	102.8% { 89.6% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 619704	(7.04, N/A) (N/A, 0.00, N/A)	455.6	N/A	2.0341 [2.0000]	101.7% { 80.0% }			
13C8_PFOA_EIS	(421.0 / 376.0) 687943	(7.85, N/A) (N/A, -0.01, N/A)	511.3	N/A	1.8983 [2.0000]	94.9% { 93.4% }			
13C9_PFNA_EIS	(472.0 / 427.0) 284722	(8.59, N/A) (N/A, 0.00, N/A)	396.4	N/A	0.9349 [1.0000]	93.5% { 89.3% }			
13C6_PFDA_EIS	(519.0 / 474.0) 417897	(9.27, N/A) (N/A, 0.00, N/A)	379.2	N/A	0.9294 [1.0000]	92.9% { 109.4% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 551676	(9.71, N/A) (N/A, 0.00, N/A)	356.5	N/A	0.9976 [1.0000]	99.8% { 101.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 529485	(9.89 , N/A) (N/A , 0.00 , N/A)	560.4	N/A	0.9595 [1.0000]	96.0% { 91.5% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 393841	(10.12 , N/A) (N/A , 0.00 , N/A)	580.3	N/A	1.1264 [1.0000]	112.6% { 104.1% }			
13C3_PFBs_EIS	(302.0 / 80.0) 1760271	(6.05 , N/A) (N/A , 0.01 , N/A)	573.5	N/A	2.0779 [2.0000]	103.9% { 89.5% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 922666	(7.96 , N/A) (N/A , -0.01 , N/A)	670.1	N/A	2.0115 [2.0000]	100.6% { 93.3% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1551433	(9.41 , N/A) (N/A , 0.00 , N/A)	153.5	N/A	2.2542 [2.0000]	112.7% { 101.0% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 471535	(5.78 , N/A) (N/A , 0.01 , N/A)	609.8	N/A	4.9268 [4.0000]	123.2% { 94.8% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 575054	(7.52 , N/A) (N/A , -0.01 , N/A)	604.9	N/A	4.5410 [4.0000]	113.5% { 98.7% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 661693	(8.94 , N/A) (N/A , 0.00 , N/A)	378.1	N/A	4.1452 [4.0000]	103.6% { 106.1% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 2072150	(10.18 , N/A) (N/A , 0.00 , N/A)	1154.9	N/A	2.5795 [2.0000]	129.0% { 108.9% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 351019	(10.62 , N/A) (N/A , 0.00 , N/A)	783.7	N/A	2.3108 [2.0000]	115.5% { 94.5% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 358388	(10.70 , N/A) (N/A , 0.00 , N/A)	1052.6	N/A	2.5758 [2.0000]	128.8% { 104.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 1013041	(9.48 , N/A) (N/A , 0.00 , N/A)	353.4	N/A	4.6781 [4.0000]	117.0% { 100.5% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 934672	(9.66 , N/A) (N/A , 0.00 , N/A)	124.1	N/A	5.4286 [4.0000]	135.7% { 104.6% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 943089	(10.58 , N/A) (N/A , 0.00 , N/A)	785.1	N/A	28.4160 [20.0000]	142.1% { 94.8% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 470629	(10.68 , N/A) (N/A , 0.00 , N/A)	884.5	N/A	30.7515 [20.0000]	153.8% { 100.1% }			S2,
13C3_HFPODA_EIS	(287.0 / 169.0) 1578154	(6.45 , N/A) (N/A , 0.01 , N/A)	614.4	N/A	8.0442 [8.0000]	100.6% { 90.3% }			

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 1633

Laboratory: APPL, LLC

Work Order: 22L0126

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Instrument ID: Saphira

Calibration: 2253011

Standard ID: 22L0448

Sequence: SB04022

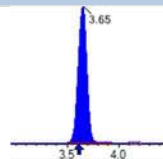
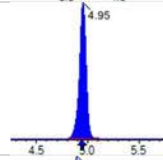
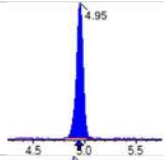
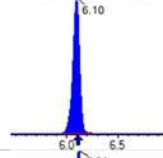
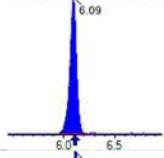
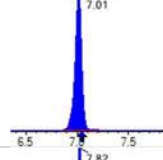
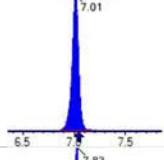
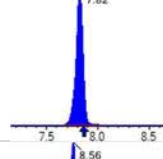
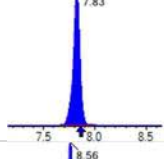
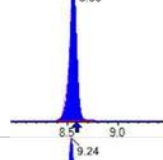
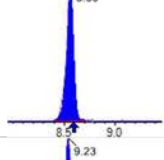
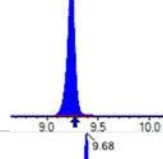
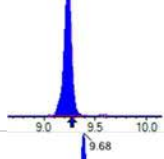
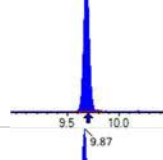
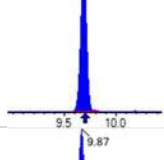
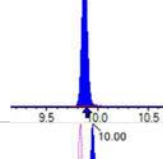
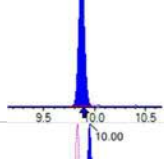
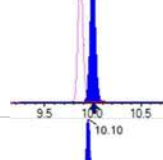
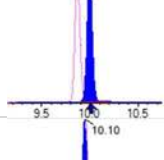
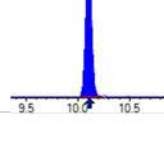
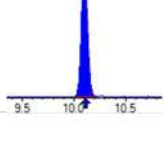
Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB04022-CCV4	PFBA	20.0	21.0	105	ng/mL	+/- 30.00%
	PFPEA	10.0	9.88	98.8	ng/mL	+/- 30.00%
	PFHXA	5.00	5.10	102	ng/mL	+/- 30.00%
	PFHPA	5.00	5.23	105	ng/mL	+/- 30.00%
	PFOA	5.00	5.46	109	ng/mL	+/- 30.00%
	PFNA	5.00	5.11	102	ng/mL	+/- 30.00%
	PFDA	5.00	5.44	109	ng/mL	+/- 30.00%
	PFUnA	5.00	5.75	115	ng/mL	+/- 30.00%
	PFDOA	5.00	5.37	107	ng/mL	+/- 30.00%
	PFTRDA	5.00	5.03	101	ng/mL	+/- 30.00%
	PFTEDA	5.00	5.55	111	ng/mL	+/- 30.00%
	PFBS	4.42	4.29	97.0	ng/mL	+/- 30.00%
	PFPEs	4.70	4.76	101	ng/mL	+/- 30.00%
	PFHXS	4.58	4.59	100	ng/mL	+/- 30.00%
	PFHPS	4.78	4.79	100	ng/mL	+/- 30.00%
	PFOS	4.65	4.97	107	ng/mL	+/- 30.00%
	PFNS	4.80	5.40	112	ng/mL	+/- 30.00%
	PFDS	4.82	5.31	110	ng/mL	+/- 30.00%
	PFDOS	4.85	5.94	122	ng/mL	+/- 30.00%
	4:2FTS	18.8	18.5	98.4	ng/mL	+/- 30.00%
	6:2FTS	19.0	20.6	109	ng/mL	+/- 30.00%
	8:2FTS	19.2	17.4	90.6	ng/mL	+/- 30.00%
	PFOSA	5.00	5.67	113	ng/mL	+/- 30.00%
	NMeFOSA	20.0	20.7	103	ng/mL	+/- 30.00%
	NEtFOSA	20.0	21.5	107	ng/mL	+/- 30.00%
	NMeFOSAA	5.00	5.36	107	ng/mL	+/- 30.00%
	NEtFOSAA	5.00	4.83	96.5	ng/mL	+/- 30.00%
	NMeFOSE	20.0	21.4	107	ng/mL	+/- 30.00%
	NEtFOSE	20.0	22.2	111	ng/mL	+/- 30.00%
	HFPO-DA	10.0	9.64	96.4	ng/mL	+/- 30.00%

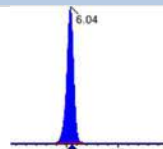
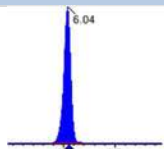
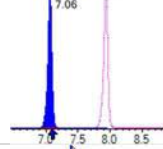
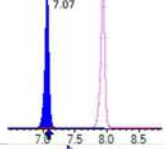
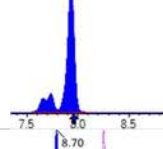
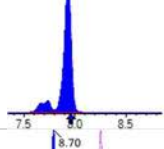
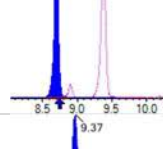
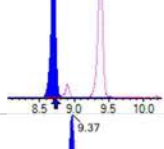
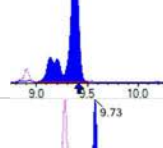
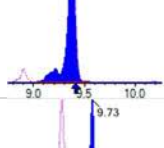
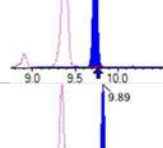
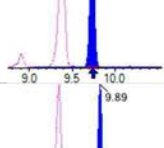
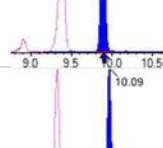
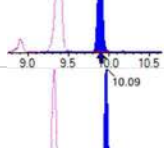
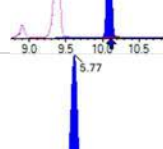
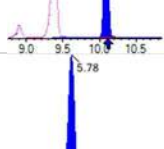
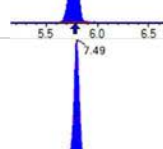
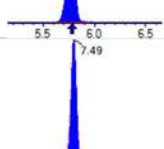
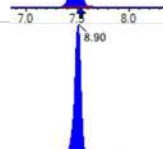
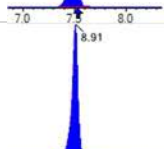

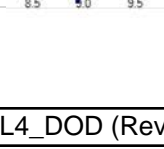
INITIAL AND CONTINUING CALIBRATION CHECK

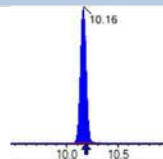
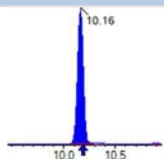
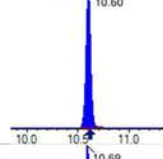
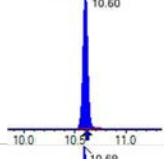
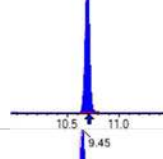
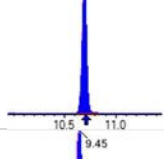
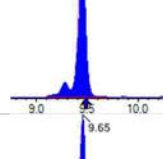
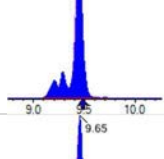
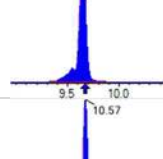
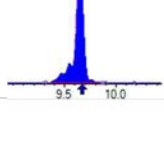
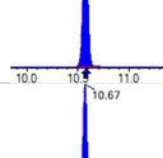
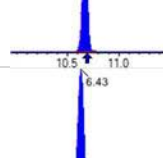
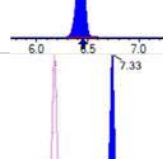
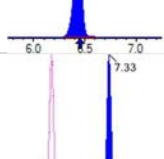
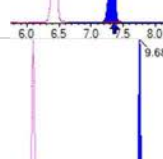
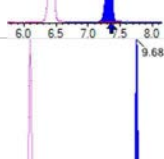
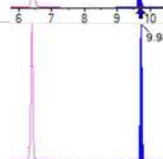
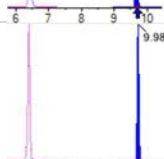

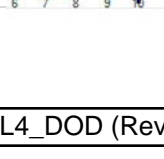
EPA 1633

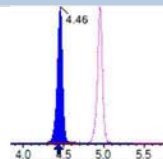
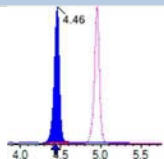
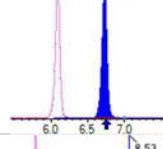
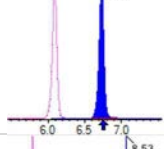
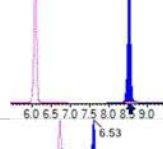
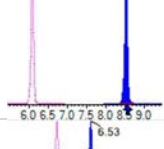
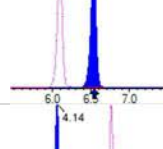
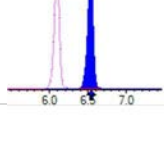
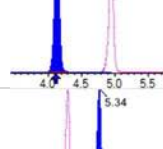
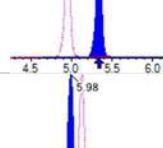
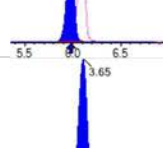
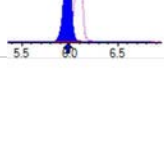
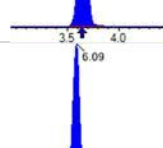
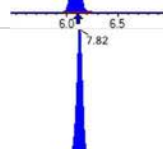
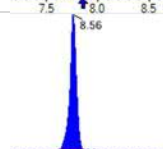
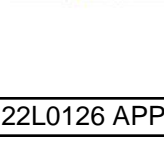
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Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Instrument ID:	Saphira	Calibration:	2253011
Standard ID:	22L0448	Sequence:	SB04022

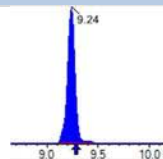
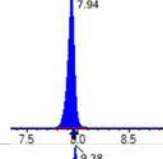
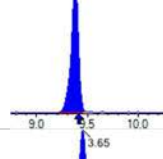
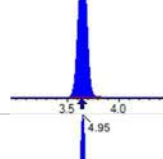
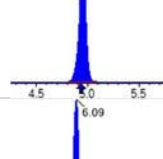
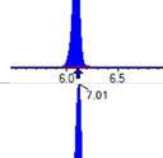
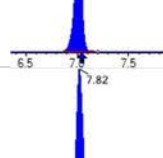
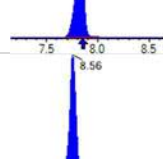
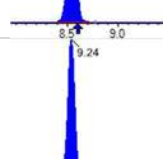
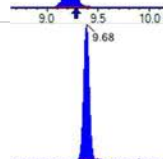

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB04022-CCV4	ADONA	9.45	10.1	107	ng/mL	+/- 30.00%
	PFEESA	8.90	9.21	104	ng/mL	+/- 30.00%
	PFMPA	10.0	8.98	89.8	ng/mL	+/- 30.00%
	PFMBA	10.0	10.0	100	ng/mL	+/- 30.00%
	NFDHA	10.0	9.57	95.7	ng/mL	+/- 30.00%
	9CL-PF3ONS	9.35	10.3	110	ng/mL	+/- 30.00%
	11CL-PF3OUDS	9.45	12.1	128	ng/mL	+/- 30.00%
	3:3FTCA	20.0	17.8	88.9	ng/mL	+/- 30.00%
	5:3FTCA	20.0	21.0	105	ng/mL	+/- 30.00%
	7:3FTCA	20.0	18.2	91.0	ng/mL	+/- 30.00%

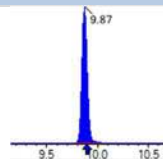
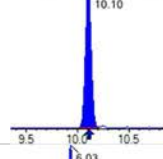
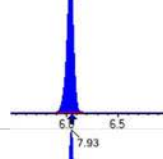
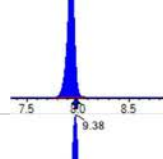
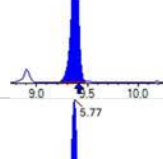
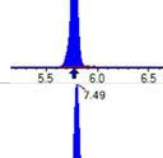
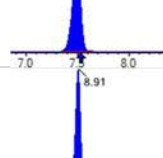
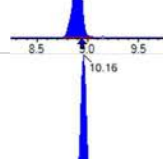
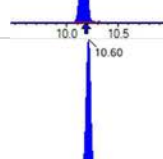
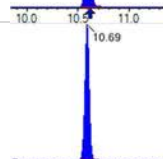
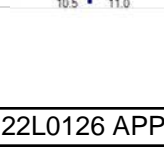
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 3500776	(3.65 , 1.00) (0.00 , N/A , 0.0)	620.1	N/A 0.0 0.0	21.0169 [20.0000]	105.1%			
PFPeA	(263.0 / 219.0) 2595075 (263.0 / 69.0) 26770	(4.95 , 1.00) (0.00 , N/A , 0.0)	579.7 298.5	0.0103 99.8 96.4	9.8782 [10.0000]	98.8%			
PFHxA	(313.0 / 269.0) 1836671 (313.0 / 119.0) 166515	(6.10 , 1.00) (0.00 , N/A , 0.0)	495.4 410.3	0.0907 93.2 99.1	5.0956 [5.0000]	101.9%			
PFHpA	(363.0 / 319.0) 1766543 (363.0 / 169.0) 483902	(7.01 , 1.00) (0.00 , N/A , 0.0)	427.2 482.5	0.2739 95.7 97.3	5.2288 [5.0000]	104.6%			
PFOA	(413.0 / 369.0) 1921516 (413.0 / 169.0) 606168	(7.82 , 1.00) (0.00 , N/A , -0.1)	579.2 538.9	0.3155 103.9 93.8	5.4622 [5.0000]	109.2%			
PFNA	(463.0 / 419.0) 1298938 (463.0 / 169.0) 286672	(8.56 , 1.00) (0.00 , N/A , 0.0)	528.1 342.8	0.2207 104.2 110.5	5.1055 [5.0000]	102.1%			
PFDA	(513.0 / 469.0) 2307602 (513.0 / 169.0) 179917	(9.24 , 1.00) (0.00 , N/A , 0.3)	412.8 298.1	0.0780 84.6 85.8	5.4355 [5.0000]	108.7%			
PFUnA	(563.0 / 519.0) 2534700 (563.0 / 169.0) 212061	(9.68 , 1.00) (0.00 , N/A , -0.1)	477.6 403.3	0.0837 108.8 85.1	5.7452 [5.0000]	114.9%			
PFDoA	(613.0 / 569.0) 2993063 (613.0 / 169.0) 341999	(9.87 , 1.00) (0.00 , N/A , 0.0)	758.2 383.9	0.1143 84.8 86.3	5.3722 [5.0000]	107.4%			
PFTTrDA	(663.0 / 619.0) 2444838 (663.0 / 169.0) 469382	(10.00 , 1.01) (N/A , -0.02 , 0.0)	527.1 607.7	0.1920 88.1 98.4	5.0291 [5.0000]	100.6%			
PFTeDA	(713.0 / 669.0) 1829596 (713.0 / 169.0) 377015	(10.10 , 1.00) (0.00 , N/A , 0.2)	689.7 471.7	0.2061 104.4 111.7	5.5495 [5.0000]	111.0%			

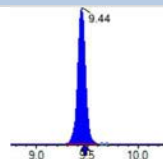
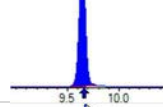
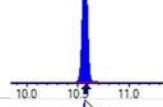
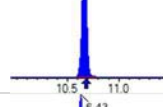
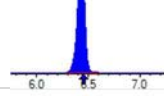
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 2498178 (299.0 / 99.0) 1594483	(6.04 , 1.00) (0.00 , N/A , -0.1)	617.7 544.5	0.6383 97.1 105.2	4.2882 [4.4237]	96.9%			
PFPeS	(349.0 / 80.0) 4421161 (349.0 / 99.0) 1604053	(7.06 , 0.89) (N/A , -0.03 , -0.1)	778.4 661.7	0.3628 97.9 106.4	4.7616 [4.6919]	101.5%			
PFHxS	(399.0 / 80.0) 3753825 (399.0 / 99.0) 1302648	(7.93 , 1.00) (0.00 , N/A , 0.1)	699.0 824.7	0.3470 106.4 111.0	4.5902 [4.5549]	100.8%			
PFHpS	(449.0 / 80.0) 3738691 (449.0 / 99.0) 973406	(8.70 , 0.93) (N/A , -0.03 , 0.0)	649.7 695.1	0.2604 99.9 101.3	4.7883 [4.7570]	100.7%			
PFOS	(499.0 / 80.0) 4466268 (499.0 / 99.0) 945049	(9.37 , 1.00) (0.00 , N/A , 0.0)	349.7 612.7	0.2116 101.7 88.6	4.9701 [4.6375]	107.2%			
PFNS	(549.0 / 80.0) 5498675 (549.0 / 99.0) 1164401	(9.73 , 1.04) (N/A , -0.02 , -0.1)	793.0 822.0	0.2118 89.0 78.2	5.3981 [4.7994]	112.5%			
PFDS	(599.0 / 80.0) 6546140 (599.0 / 99.0) 1349517	(9.89 , 1.05) (N/A , -0.01 , -0.1)	843.6 637.3	0.2062 78.4 87.9	5.3149 [4.8155]	110.4%			
PFDoS	(699.0 / 80.0) 3443812 (699.0 / 99.0) 681603	(10.09 , 1.08) (N/A , -0.02 , 0.1)	1046.9 520.7	0.1979 101.0 87.5	5.9375 [4.8478]	122.5%			
4:2FTS	(327.0 / 307.0) 7900117 (327.0 / 81.0) 5026469	(5.77 , 1.00) (0.00 , N/A , -0.2)	753.9 681.1	0.6363 88.9 115.0	18.4978 [18.6906]	99.0%			
6:2FTS	(427.0 / 407.0) 4852449 (427.0 / 81.0) 3954977	(7.49 , 1.00) (0.00 , N/A , -0.1)	664.0 1021.5	0.8150 110.3 98.1	20.6241 [18.9808]	108.7%			
8:2FTS	(527.0 / 507.0) 4747676 (527.0 / 81.0) 3316010	(8.90 , 1.00) (0.00 , N/A , -0.3)	489.5 512.6	0.6984 114.2 94.4	17.3915 [19.1658]	90.7%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 5828492 (498.0 / 478.0) 143350	(10.16 , 1.00) (0.00 , N/A , -0.1)	1301.2 390.4	0.0246 117.8 126.3	5.6664 [5.0000]	113.3%			
NMeFOSA	(512.0 / 219.0) 3553476 (512.0 / 169.0) 2581376	(10.60 , 1.00) (0.00 , N/A , 0.0)	693.0 615.3	0.7264 105.0 102.9	20.6529 [20.0000]	103.3%			
NEIFOSA	(526.0 / 219.0) 3645039 (526.0 / 169.0) 3846111	(10.69 , 1.00) (0.00 , N/A , 0.0)	1228.2 1103.4	1.0552 106.3 96.3	21.4566 [20.0000]	107.3%			
NMeFOSAA	(570.0 / 419.0) 1064592 (570.0 / 483.0) 526838	(9.45 , 1.00) (0.01 , N/A , 0.1)	406.6 464.4	0.4949 88.9 99.6	5.3609 [5.0000]	107.2%			
NEIFOSAA	(584.0 / 419.0) 1010434 (584.0 / 526.0) 591120	(9.65 , 1.00) (0.00 , N/A , -0.1)	911.3 484.9	0.5850 98.6 99.3	4.8250 [5.0000]	96.5%			
NMeFOSE	(616.0 / 59.0) 1215707	(10.57 , 1.00) (0.01 , N/A , 0.0)	836.5	N/A 0.0 0.0	21.3848 [20.0000]	106.9%			
NEtFOSE	(630.0 / 59.0) 292309	(10.67 , 1.00) (0.01 , N/A , 0.0)	1095.8	N/A 0.0 0.0	22.1747 [20.0000]	110.9%			
HFPO-DA	(285.0 / 169.0) 1401783 (285.0 / 185.0) 3767272	(6.43 , 1.00) (0.00 , N/A , -0.1)	597.0 717.3	2.6875 104.8 100.1	9.6383 [10.0000]	96.4%			
ADONA	(377.0 / 85.0) 5843775 (377.0 / 251.0) 701384	(7.33 , 1.14) (N/A , -0.03 , 0.2)	662.1 480.1	0.1200 97.5 101.2	10.0829 [9.4270]	107.0%			
9CI-PF3ONS	(531.0 / 351.0) 16236195 (533.0 / 353.0) 5210717	(9.68 , 1.51) (N/A , -0.02 , 0.0)	752.0 868.7	0.3209 101.6 97.5	10.2571 [9.3325]	109.9%			
11CI-PF3OUDS	(631.0 / 451.0) 10818045 (633.0 / 453.0) 2910863	(9.98 , 1.55) (N/A , -0.02 , 0.1)	1037.8 1174.4	0.2691 86.9 81.1	12.0752 [9.4321]	128.0%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 160470 (241.0 / 117.0) 217839	(4.46 , 0.90) (N/A , 0.03 , 0.1)	592.4 385.8	1.3575 103.2 103.8	17.7715 [20.0000]	88.9%			
5:3FTCA	(341.0 / 236.7) 1158103 (341.0 / 217.0) 1927091	(6.73 , 1.10) (N/A , -0.02 , 0.0)	455.2 522.0	1.6640 92.7 107.7	20.9919 [20.0000]	105.0%			
7:3FTCA	(441.0 / 317.0) 1308152 (441.0 / 337.0) 1085682	(8.53 , 1.40) (N/A , -0.03 , 0.0)	430.3 373.9	0.8299 100.7 97.6	18.2026 [20.0000]	91.0%			
PFEESA	(315.0 / 135.0) 3048689 (315.0 / 83.0) 925205	(6.53 , 1.07) (N/A , -0.01 , 0.0)	574.6 601.0	0.3035 99.5 102.2	9.2123 [8.9246]	103.2%			
PFMPA	(229.0 / 85.0) 689008	(4.14 , 0.84) (N/A , 0.01 , 0.0)	1030.2	N/A 0.0 0.0	8.9804 [10.0000]	89.8%			
PFMBA	(279.0 / 85.0) 2196769	(5.34 , 1.08) (N/A , 0.01 , 0.0)	724.6	N/A 0.0 0.0	10.0404 [10.0000]	100.4%			
NFDHA	(295.0 / 201.0) 1692323 (295.0 / 85.0) 1587515	(5.98 , 0.98) (N/A , -0.01 , 0.1)	601.6 667.0	0.9381 109.2 106.7	9.5656 [10.0000]	95.7%			
13C3_PFBA_IIS	(216.0 / 172.0) 181681	(3.65 , N/A) (N/A , 0.02 , N/A)	686.8	N/A	0.8436 [1.0000]	84.4% { 89.9% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 375031	(6.09 , N/A) (N/A , -0.01 , N/A)	520.5	N/A	0.9879 [1.0000]	98.8% { 96.2% }			
13C4_PFOA_IIS	(417.0 / 372.0) 378173	(7.82 , N/A) (N/A , -0.04 , N/A)	695.4	N/A	1.0477 [1.0000]	104.8% { 98.6% }			
13C5_PFNA_IIS	(468.0 / 423.0) 268842	(8.56 , N/A) (N/A , -0.03 , N/A)	503.7	N/A	0.9142 [1.0000]	91.4% { 92.2% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 396784	(9.24 , N/A) (N/A , -0.03 , N/A)	182.8	N/A	1.1648 [1.0000]	116.5% { 113.9% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 582652	(7.94 , N/A) (N/A , -0.03 , N/A)	561.0	N/A	0.9629 [1.0000]	96.3% { 92.0% }			
13C4_PFOS_IIS	(503.0 / 79.9) 618290	(9.38 , N/A) (N/A , -0.03 , N/A)	372.8	N/A	0.9589 [1.0000]	95.9% { 97.3% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1426226	(3.65 , N/A) (N/A , 0.02 , N/A)	716.2	N/A	7.8190 [8.0000]	97.7% { 91.7% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1106676	(4.95 , N/A) (N/A , 0.02 , N/A)	611.1	N/A	3.9114 [4.0000]	97.8% { 90.2% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 726452	(6.09 , N/A) (N/A , -0.01 , N/A)	605.0	N/A	1.8929 [2.0000]	94.6% { 90.3% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 644830	(7.01 , N/A) (N/A , -0.02 , N/A)	473.6	N/A	1.9342 [2.0000]	96.7% { 83.2% }			
13C8_PFOA_EIS	(421.0 / 376.0) 660456	(7.82 , N/A) (N/A , -0.03 , N/A)	677.9	N/A	1.7069 [2.0000]	85.3% { 89.7% }			
13C9_PFNA_EIS	(472.0 / 427.0) 263607	(8.56 , N/A) (N/A , -0.04 , N/A)	320.3	N/A	0.9437 [1.0000]	94.4% { 82.7% }			
13C6_PFDA_EIS	(519.0 / 474.0) 428111	(9.24 , N/A) (N/A , -0.03 , N/A)	386.0	N/A	0.8932 [1.0000]	89.3% { 112.1% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 483438	(9.68 , N/A) (N/A , -0.02 , N/A)	517.2	N/A	0.8202 [1.0000]	82.0% { 89.1% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 581353	(9.87, N/A) (N/A, -0.02, N/A)	945.8	N/A	0.9884 [1.0000]	98.8% { 100.5% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 325916	(10.10, N/A) (N/A, -0.01, N/A)	601.3	N/A	0.8745 [1.0000]	87.4% { 86.2% }			
13C3_PFBs_EIS	(302.0 / 80.0) 1826378	(6.03, N/A) (N/A, -0.01, N/A)	625.7	N/A	2.0711 [2.0000]	103.6% { 92.9% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 944293	(7.93, N/A) (N/A, -0.04, N/A)	814.9	N/A	1.9777 [2.0000]	98.9% { 95.5% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1543429	(9.38, N/A) (N/A, -0.03, N/A)	153.6	N/A	2.0714 [2.0000]	103.6% { 100.5% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 502387	(5.77, N/A) (N/A, 0.00, N/A)	509.6	N/A	5.0427 [4.0000]	126.1% { 101.0% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 586179	(7.49, N/A) (N/A, -0.03, N/A)	603.8	N/A	4.4469 [4.0000]	111.2% { 100.6% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 700029	(8.91, N/A) (N/A, -0.03, N/A)	453.2	N/A	4.2129 [4.0000]	105.3% { 112.3% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 1773914	(10.16, N/A) (N/A, -0.02, N/A)	868.6	N/A	2.0398 [2.0000]	102.0% { 93.2% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 354245	(10.60, N/A) (N/A, -0.02, N/A)	890.4	N/A	2.1540 [2.0000]	107.7% { 95.4% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 342534	(10.69, N/A) (N/A, -0.02, N/A)	1157.9	N/A	2.2740 [2.0000]	113.7% { 100.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 875350	(9.44 , N/A) (N/A , -0.03 , N/A)	421.9	N/A	3.7338 [4.0000]	93.3% { 86.8% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 849732	(9.64 , N/A) (N/A , -0.02 , N/A)	129.8	N/A	4.5587 [4.0000]	114.0% { 95.1% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 931252	(10.57 , N/A) (N/A , -0.01 , N/A)	916.7	N/A	25.9183 [20.0000]	129.6% { 93.6% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 485252	(10.66 , N/A) (N/A , -0.01 , N/A)	1381.6	N/A	29.2876 [20.0000]	146.4% { 103.3% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1676143	(6.43 , N/A) (N/A , -0.01 , N/A)	581.7	N/A	7.8073 [8.0000]	97.6% { 95.9% }			

ANALYSIS SEQUENCE BLANKS

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 Client: AECOM
 Sequence: SB03989
 Calibration: 2253007

SDG:
 Project: Red Hill AFFF Assessment Sam
 Instrument: Saphira

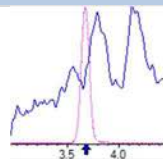
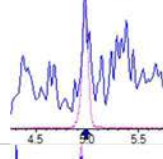
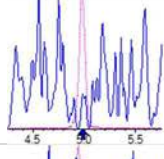
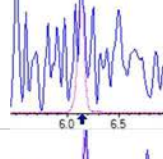
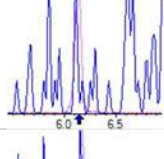
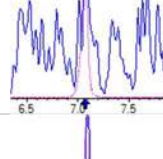
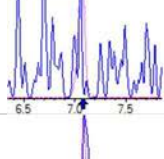
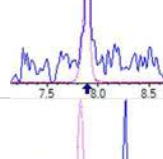
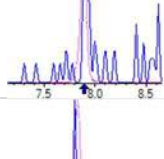
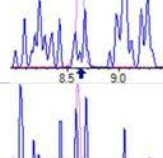
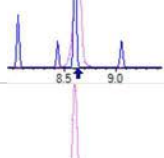
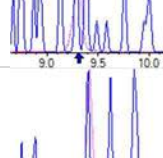
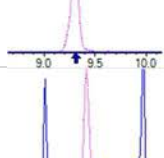
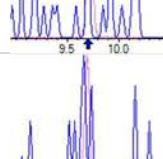
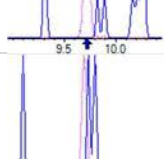
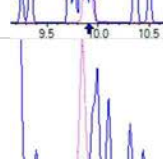
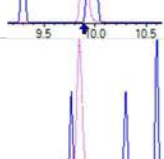
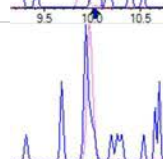
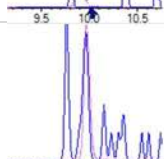
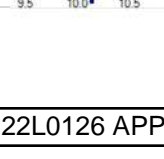
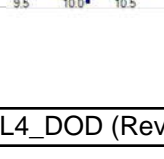
Lab Sample ID	Analyte	Found	Units	RL	C
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	PFPEA	0.00	ng/mL	0.20	U
	PFHXA	0.00	ng/mL	0.10	U
	PFHPA	0.00	ng/mL	0.10	U
	PFOA	0.00	ng/mL	0.10	U
	PFNA	0.00	ng/mL	0.10	U
	PFDA	0.00	ng/mL	0.10	U
	PFUnA	0.00	ng/mL	0.10	U
	PFDOA	0.00	ng/mL	0.10	U
	PFTRDA	0.00	ng/mL	0.10	U
	PFTEDA	0.00	ng/mL	0.10	U
	PFBS	0.00	ng/mL	0.10	U
	PFPEs	0.00	ng/mL	0.10	U
	PFHXS	0.00	ng/mL	0.10	U
	PFHPS	0.00	ng/mL	0.10	U
	PFOS	0.0171	ng/mL	0.10	U
	PFNS	0.00	ng/mL	0.10	U
	PFDS	0.00	ng/mL	0.10	U
	PFDOS	0.00	ng/mL	0.10	U
	4:2FTS	0.00	ng/mL	0.40	U
	6:2FTS	0.00	ng/mL	0.40	U
	8:2FTS	0.00	ng/mL	0.40	U
	PFOSA	0.00	ng/mL	0.10	U
	NMeFOSA	0.00	ng/mL	0.40	U
	NEtFOSA	0.00	ng/mL	0.40	U
	NMeFOSAA	0.00	ng/mL	0.10	U
	NEtFOSAA	0.00	ng/mL	0.10	U
	NMeFOSE	0.00	ng/mL	0.40	U
	NEtFOSE	0.00	ng/mL	0.40	U
	HFPO-DA	0.00	ng/mL	0.20	U
	ADONA	0.00	ng/mL	0.20	U
	PFEESA	0.00	ng/mL	0.20	U
	PFMPA	0.00	ng/mL	0.20	U

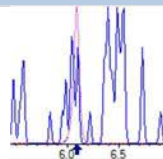
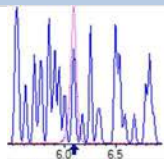
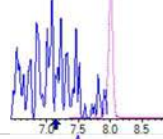
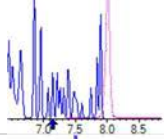
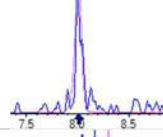
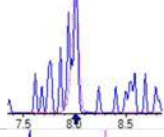
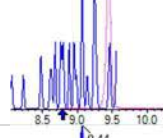
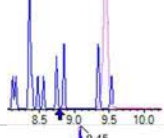
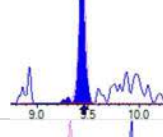
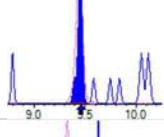
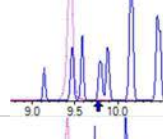
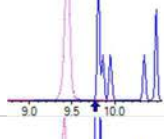
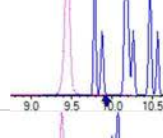
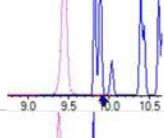
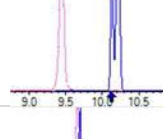
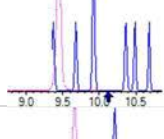
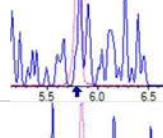
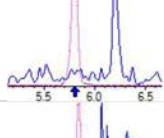
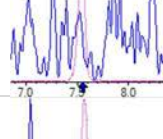
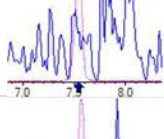
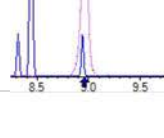
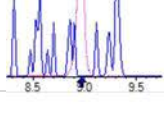
ANALYSIS SEQUENCE BLANKS

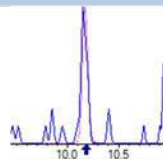
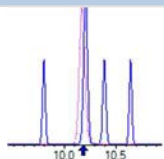
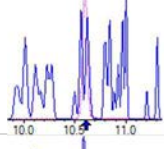
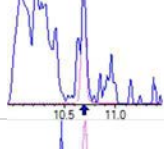
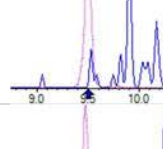
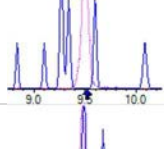
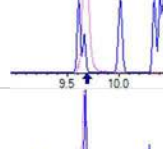
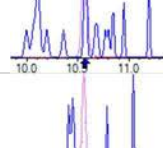
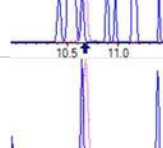
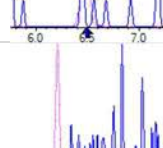
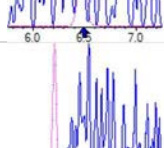
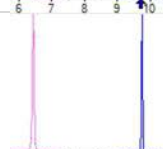
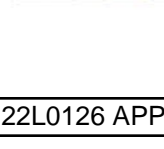
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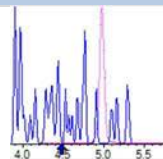
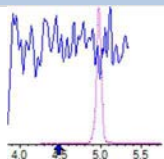
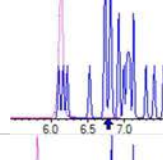
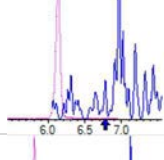
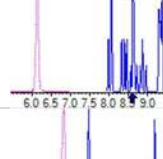
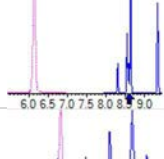
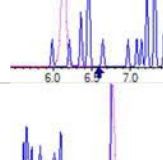
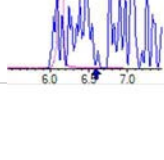
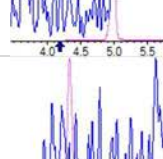
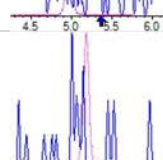
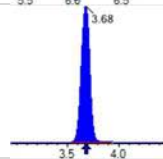

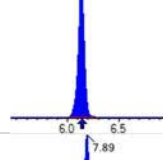
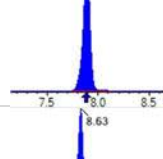
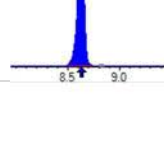
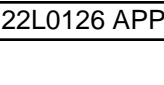
SDG:
 Project: Red Hill AFFF Assessment Sam
 Instrument: Saphira

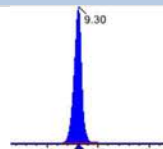
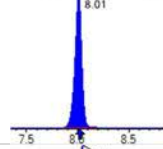
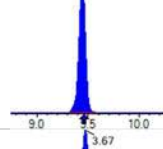
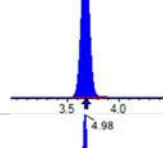
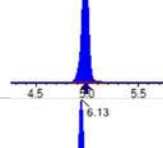
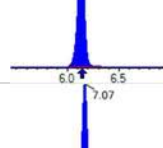
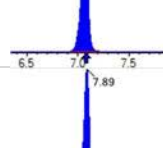
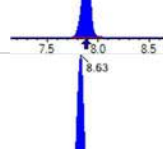
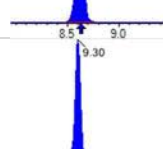
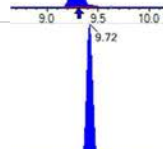

Lab Sample ID	Analyte	Found	Units	RL	C
SB03989-CCB1	PFMBA	0.00	ng/mL	0.20	U
	NFDHA	0.00	ng/mL	0.20	U
	9CL-PF3ONS	0.00	ng/mL	0.20	U
	11CL-PF3OUDS	0.00	ng/mL	0.20	U
	3:3FTCA	0.00	ng/mL	0.40	U
	5:3FTCA	0.00	ng/mL	0.40	U
	7:3FTCA	0.00	ng/mL	0.40	U
	13C4-PFBA	7.93	ng/mL		
	13C5-PFPEA	4.26	ng/mL		
	13C5-PFHXA	2.07	ng/mL		
	13C4-PFHPA	1.95	ng/mL		
	13C8-PFOA	2.15	ng/mL		
	13C9-PFNA	1.02	ng/mL		
	13C6-PFDA	1.04	ng/mL		
	13C7-PFUnA	1.07	ng/mL		
	13C2-PFDOA	1.07	ng/mL		
	13C2-PFTEDA	1.16	ng/mL		
	13C3-PFBS	2.20	ng/mL		
	13C3-PFHXS	1.95	ng/mL		
	13C8-PFOS	2.13	ng/mL		
	13C2-4:2FTS	3.89	ng/mL		
	13C2-6:2FTS	3.66	ng/mL		
	13C2-8:2FTS	3.77	ng/mL		
	13C8-PFOSA	2.44	ng/mL		
	D5-NETFOSA	2.46	ng/mL		
	D3-NMEFOSA	2.31	ng/mL		
	D3-NMEFOSAA	4.35	ng/mL		
	D5-NETFOSAA	4.42	ng/mL		
	D7-NMEFOSE	26.7	ng/mL		
	D9-NETFOSE	28.1	ng/mL		
	13C3-HFPO-DA	8.29	ng/mL		

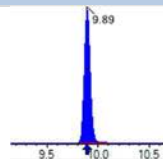
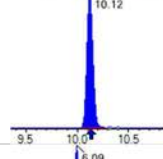
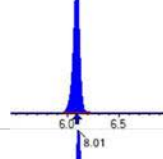
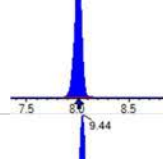
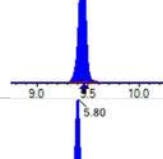
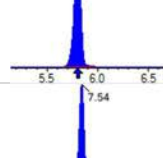
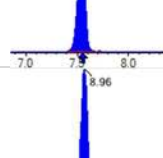
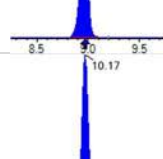
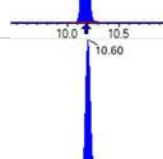
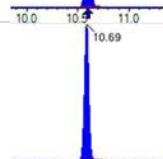
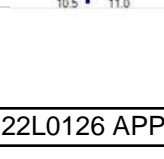
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(263.0 / 219.0) N/A (263.0 / 69.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDaA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

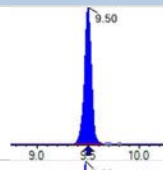
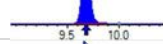
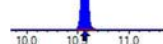
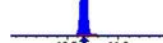

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) N/A (299.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	(349.0 / 80.0) N/A (349.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	(399.0 / 80.0) N/A (399.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) 17771 (499.0 / 99.0) 2373	(9.44, 1.00) (-0.01, N/A, -0.9)	1500.8 186.7	0.1335 58.5 59.3	0.0171	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(699.0 / 80.0) N/A (699.0 / 99.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) N/A (427.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(512.0 / 219.0) N/A (512.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSE	(630.0 / 59.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-PF3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(295.0 / 201.0) N/A (295.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 311594	(3.68, N/A) (N/A, 0.00, N/A)	614.3	N/A	1.1527 [1.0000]	115.3% { 108.4% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 423747	(6.13, N/A) (N/A, 0.00, N/A)	687.1	N/A	1.0670 [1.0000]	106.7% { 103.4% }			
13C4_PFOA_IIS	(417.0 / 372.0) 395133	(7.89, N/A) (N/A, 0.00, N/A)	542.4	N/A	0.9891 [1.0000]	98.9% { 100.9% }			
13C5_PFNA_IIS	(468.0 / 423.0) 336161	(8.63, N/A) (N/A, 0.00, N/A)	457.8	N/A	1.0170 [1.0000]	101.7% { 98.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 355692	(9.30 , N/A) (N/A , -0.01 , N/A)	380.2	N/A	0.9961 [1.0000]	99.6% { 98.2% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 681185	(8.01 , N/A) (N/A , 0.00 , N/A)	581.8	N/A	0.9767 [1.0000]	97.7% { 103.6% }			
13C4_PFOS_IIS	(503.0 / 79.9) 649656	(9.44 , N/A) (N/A , -0.01 , N/A)	541.9	N/A	0.9421 [1.0000]	94.2% { 96.2% }			
13C4_PFBA_EIS	(217.0 / 172.0) 2656779	(3.67 , N/A) (N/A , 0.00 , N/A)	741.7	N/A	7.9344 [8.0000]	99.2% { 112.5% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1651330	(4.98 , N/A) (N/A , 0.00 , N/A)	564.3	N/A	4.2643 [4.0000]	106.6% { 116.1% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 974040	(6.13 , N/A) (N/A , -0.01 , N/A)	503.9	N/A	2.0666 [2.0000]	103.3% { 102.8% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 819584	(7.07 , N/A) (N/A , -0.01 , N/A)	469.1	N/A	1.9462 [2.0000]	97.3% { 102.3% }			
13C8_PFOA_EIS	(421.0 / 376.0) 929554	(7.89 , N/A) (N/A , 0.00 , N/A)	641.6	N/A	2.1468 [2.0000]	107.3% { 113.6% }			
13C9_PFNA_EIS	(472.0 / 427.0) 378987	(8.63 , N/A) (N/A , -0.01 , N/A)	521.8	N/A	1.0241 [1.0000]	102.4% { 101.2% }			
13C6_PFDA_EIS	(519.0 / 474.0) 482118	(9.30 , N/A) (N/A , -0.01 , N/A)	284.5	N/A	1.0361 [1.0000]	103.6% { 114.2% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 604296	(9.72 , N/A) (N/A , -0.01 , N/A)	410.9	N/A	1.0717 [1.0000]	107.2% { 94.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 666415	(9.89, N/A) (N/A, -0.01, N/A)	554.7	N/A	1.0738 [1.0000]	107.4% {105.6%}			
13C2_PFTeDA_EIS	(715.0 / 670.0) 473683	(10.12, N/A) (N/A, -0.01, N/A)	1960.4	N/A	1.1563 [1.0000]	115.6% {107.1%}			
13C3_PFBs_EIS	(302.0 / 80.0) 2525491	(6.09, N/A) (N/A, 0.00, N/A)	667.5	N/A	2.2017 [2.0000]	110.1% {117.2%}			
13C3_PFHxS_EIS	(402.0 / 80.0) 1188542	(8.01, N/A) (N/A, 0.00, N/A)	624.6	N/A	1.9521 [2.0000]	97.6% {105.4%}			
13C8_PFOS_EIS	(507.0 / 80.0) 1794488	(9.44, N/A) (N/A, -0.01, N/A)	578.5	N/A	2.1328 [2.0000]	106.6% {97.2%}			
13C2_4:2FTS_EIS	(329.0 / 81.0) 525622	(5.80, N/A) (N/A, 0.00, N/A)	448.4	N/A	3.8911 [4.0000]	97.3% {98.3%}			
13C2_6:2FTS_EIS	(429.0 / 81.0) 613682	(7.54, N/A) (N/A, 0.00, N/A)	703.6	N/A	3.6557 [4.0000]	91.4% {90.3%}			
13C2_8:2FTS_EIS	(529.0 / 81.0) 623647	(8.96, N/A) (N/A, -0.01, N/A)	594.2	N/A	3.7683 [4.0000]	94.2% {86.2%}			
13C8_PFOsa_EIS	(506.0 / 78.0) 2727038	(10.17, N/A) (N/A, -0.01, N/A)	927.5	N/A	2.4378 [2.0000]	121.9% {108.5%}			
D3_NMeFOsa_EIS	(515.0 / 169.0) 500118	(10.60, N/A) (N/A, -0.01, N/A)	1404.7	N/A	2.3054 [2.0000]	115.3% {108.5%}			
D5_NEtFOsa_EIS	(531.0 / 169.0) 475370	(10.69, N/A) (N/A, 0.00, N/A)	913.9	N/A	2.4593 [2.0000]	123.0% {96.6%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (Δ RT-Imin, Δ RT-CVmin, Δ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 1001073	(9.50, N/A) (N/A, 0.00, N/A)	369.7	N/A	4.3494 [4.0000]	108.7% {100.3%}			
D5_EtFOSAA_EIS	(589.0 / 419.0) 870812	(9.68, N/A) (N/A, -0.01, N/A)	361.2	N/A	4.4172 [4.0000]	110.4% {120.5%}			
D7_NMeFOSE_EIS	(623.0 / 58.9) 927426	(10.57, N/A) (N/A, 0.00, N/A)	726.2	N/A	26.6835 [20.0000]	133.4% {96.5%}			
D9_NEtFOSE_EIS	(639.0 / 58.9) 394442	(10.66, N/A) (N/A, 0.00, N/A)	1028.9	N/A	28.0628 [20.0000]	140.3% {94.2%}			
13C3_HFPODA_EIS	(287.0 / 169.0) 2169125	(6.48, N/A) (N/A, 0.00, N/A)	692.1	N/A	8.2876 [8.0000]	103.6% {104.6%}			

ANALYSIS SEQUENCE BLANKS

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 Client: AECOM
 Sequence: SB03989
 Calibration: 2253007

SDG:
 Project: Red Hill AFFF Assessment Sam
 Instrument: Saphira

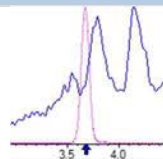
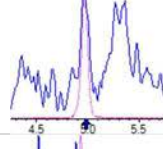
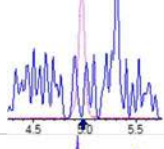
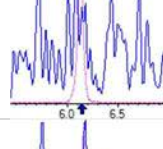
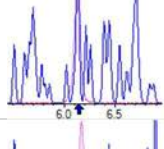
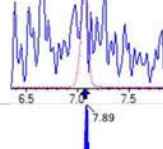
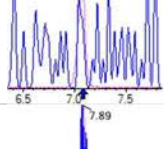
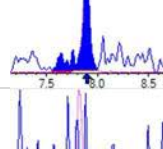
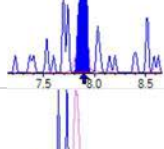
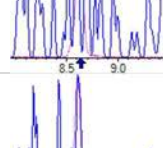
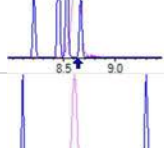
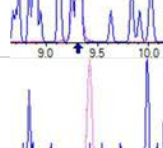
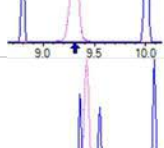
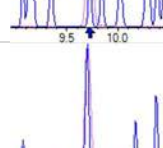
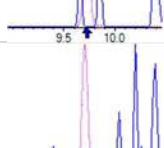
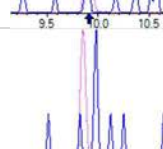
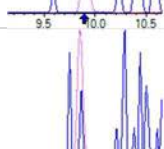
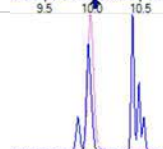
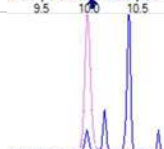
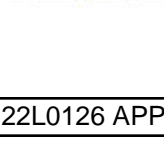
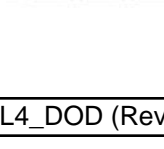
Lab Sample ID	Analyte	Found	Units	RL	C
SB03989-CCB2	PFBA	0.00	ng/mL	0.40	U
	PFPEA	0.00	ng/mL	0.20	U
	PFHXA	0.00	ng/mL	0.10	U
	PFHPA	0.00	ng/mL	0.10	U
	PFOA	0.0224	ng/mL	0.10	U
	PFNA	0.00	ng/mL	0.10	U
	PFDA	0.00	ng/mL	0.10	U
	PFUnA	0.00	ng/mL	0.10	U
	PFDOA	0.00	ng/mL	0.10	U
	PFTRDA	0.00	ng/mL	0.10	U
	PFTEDA	0.00	ng/mL	0.10	U
	PFBS	0.00	ng/mL	0.10	U
	PFPEs	0.00	ng/mL	0.10	U
	PFHXS	0.00	ng/mL	0.10	U
	PFHPS	0.00	ng/mL	0.10	U
	PFOS	0.00	ng/mL	0.10	U
	PFNS	0.00	ng/mL	0.10	U
	PFDS	0.00	ng/mL	0.10	U
	PFDOS	0.00	ng/mL	0.10	U
	4:2FTS	0.00	ng/mL	0.40	U
	6:2FTS	0.00	ng/mL	0.40	U
	8:2FTS	0.00	ng/mL	0.40	U
	PFOSA	0.00	ng/mL	0.10	U
	NMeFOSA	0.00	ng/mL	0.40	U
	NEtFOSA	0.00	ng/mL	0.40	U
	NMeFOSAA	0.00	ng/mL	0.10	U
	NEtFOSAA	0.00	ng/mL	0.10	U
	NMeFOSE	0.00	ng/mL	0.40	U
	NEtFOSE	0.00	ng/mL	0.40	U
	HFPO-DA	0.00	ng/mL	0.20	U
	ADONA	0.00	ng/mL	0.20	U
	PFEESA	0.00	ng/mL	0.20	U
	PFMPA	0.00	ng/mL	0.20	U

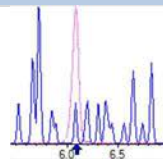
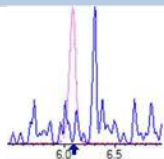
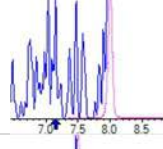
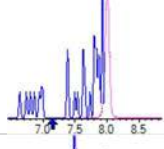
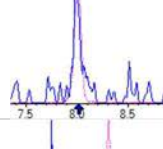
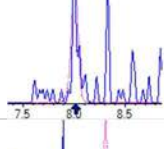
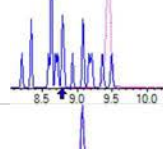
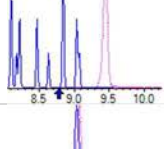
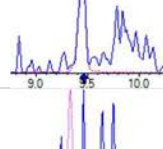
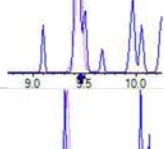
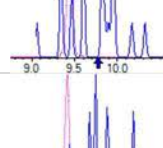
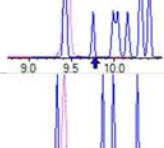
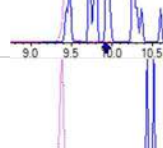
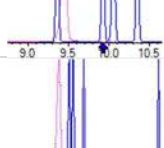
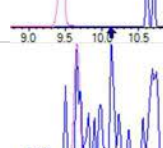
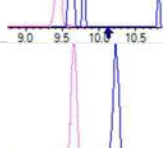
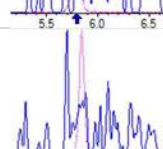
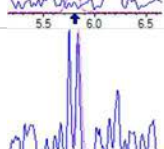
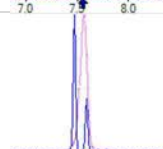
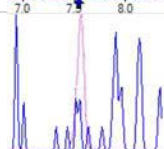
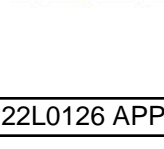
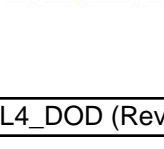
ANALYSIS SEQUENCE BLANKS

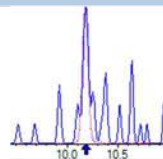
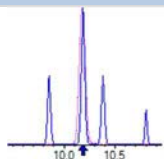
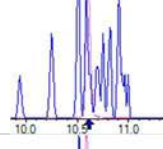
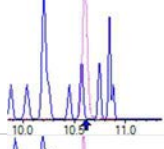
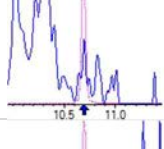
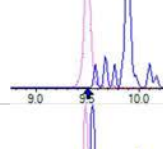
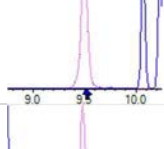
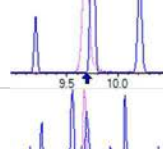
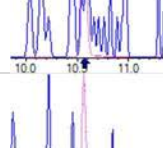
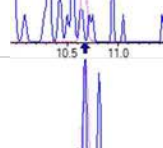
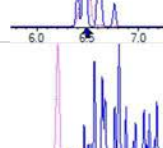
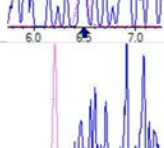
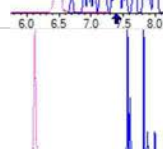
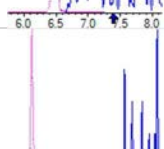
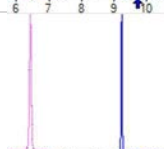
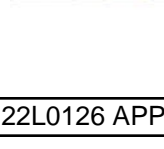
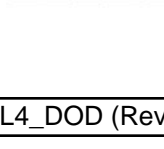
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 Client: AECOM
 Sequence: SB03989
 Calibration: 2253007

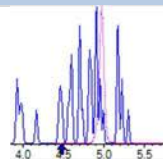
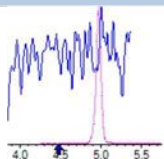
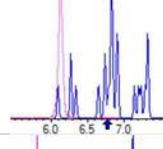
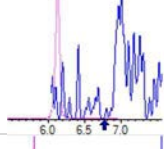
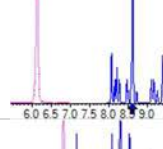
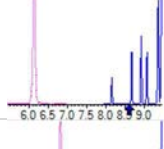
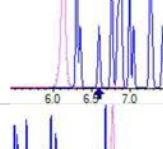
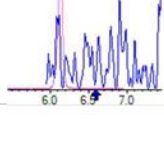
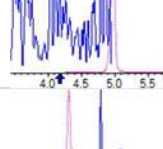
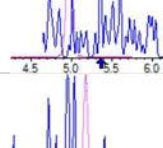
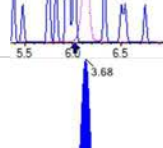
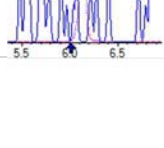
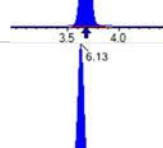
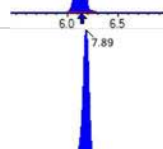
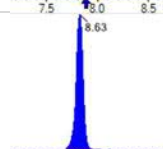
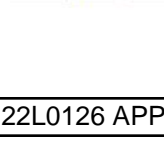
SDG:
 Project: Red Hill AFFF Assessment Sam
 Instrument: Saphira

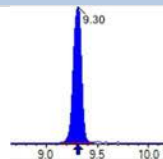
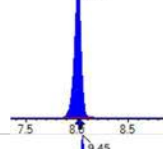
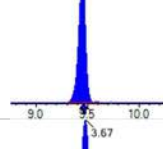
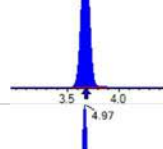
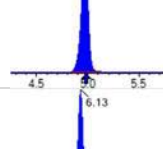
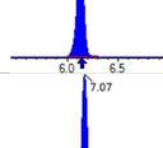
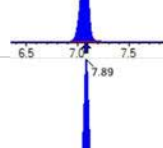
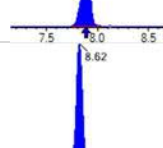
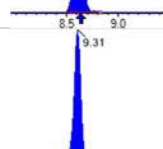
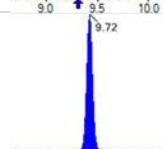
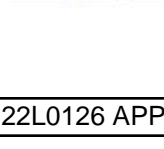
Lab Sample ID	Analyte	Found	Units	RL	C
SB03989-CCB2	PFMBA	0.00	ng/mL	0.20	U
	NFDHA	0.00	ng/mL	0.20	U
	9CL-PF3ONS	0.00	ng/mL	0.20	U
	11CL-PF3OUDS	0.00	ng/mL	0.20	U
	3:3FTCA	0.00	ng/mL	0.40	U
	5:3FTCA	0.00	ng/mL	0.40	U
	7:3FTCA	0.00	ng/mL	0.40	U
	13C4-PFBA	7.87	ng/mL		
	13C5-PFPEA	4.52	ng/mL		
	13C5-PFHXA	2.17	ng/mL		
	13C4-PFHPA	2.12	ng/mL		
	13C8-PFOA	1.95	ng/mL		
	13C9-PFNA	0.938	ng/mL		
	13C6-PFDA	1.13	ng/mL		
	13C7-PFUnA	1.19	ng/mL		
	13C2-PFDOA	1.15	ng/mL		
	13C2-PFTEDA	1.43	ng/mL		
	13C3-PFBS	2.10	ng/mL		
	13C3-PFHXS	2.06	ng/mL		
	13C8-PFOS	2.22	ng/mL		
	13C2-4:2FTS	4.02	ng/mL		
	13C2-6:2FTS	3.98	ng/mL		
	13C2-8:2FTS	3.58	ng/mL		
	13C8-PFOSA	2.21	ng/mL		
	D5-NETFOSA	2.33	ng/mL		
	D3-NMEFOSA	2.24	ng/mL		
	D3-NMEFOSAA	4.18	ng/mL		
	D5-NETFOSAA	4.07	ng/mL		
	D7-NMEFOSE	25.6	ng/mL		
	D9-NETFOSE	25.4	ng/mL		
	13C3-HFPO-DA	8.73	ng/mL		

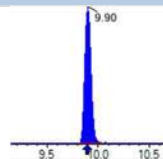
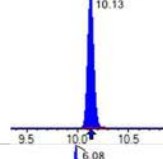
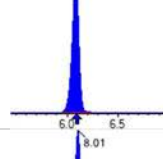
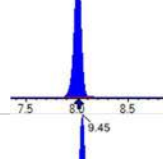
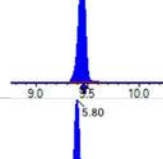
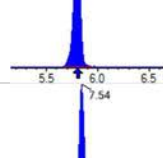
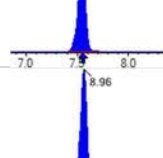
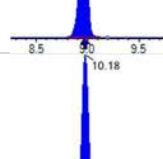
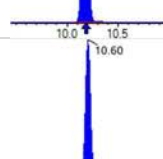
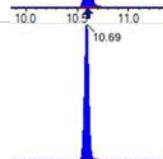

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(263.0 / 219.0) N/A (263.0 / 69.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) 8840 (413.0 / 169.0) 1222	(7.89 , 1.00) (0.00 , N/A , 0.3)	58.6 16.5	0.1382 41.1 44.1	0.0224	N/A			IR1,MI5 DG 2022-12-28
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDaA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

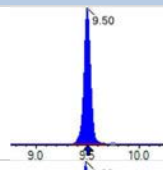
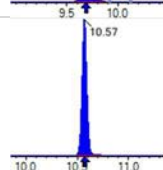
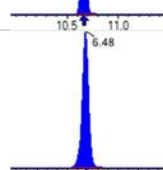


Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) N/A (299.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	(349.0 / 80.0) N/A (349.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	(399.0 / 80.0) N/A (399.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) N/A (499.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(699.0 / 80.0) N/A (699.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) N/A (427.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(512.0 / 219.0) N/A (512.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSE	(630.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-PF3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(295.0 / 201.0) N/A (295.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 312338	(3.68 , N/A) (N/A , 0.00 , N/A)	728.7	N/A	1.1554 [1.0000]	115.5% { 108.6% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 378255	(6.13 , N/A) (N/A , 0.00 , N/A)	427.0	N/A	0.9525 [1.0000]	95.2% { 92.3% }			
13C4_PFOA_IIS	(417.0 / 372.0) 397766	(7.89 , N/A) (N/A , 0.00 , N/A)	531.5	N/A	0.9957 [1.0000]	99.6% { 101.6% }			
13C5_PFNA_IIS	(468.0 / 423.0) 320093	(8.63 , N/A) (N/A , 0.00 , N/A)	360.4	N/A	0.9683 [1.0000]	96.8% { 93.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 296577	(9.30 , N/A) (N/A , -0.01 , N/A)	243.0	N/A	0.8306 [1.0000]	83.1% { 81.8% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 648775	(8.01 , N/A) (N/A , 0.00 , N/A)	657.2	N/A	0.9302 [1.0000]	93.0% { 98.7% }			
13C4_PFOS_IIS	(503.0 / 79.9) 658427	(9.45 , N/A) (N/A , -0.01 , N/A)	468.4	N/A	0.9548 [1.0000]	95.5% { 97.5% }			
13C4_PFBA_EIS	(217.0 / 172.0) 2642364	(3.67 , N/A) (N/A , 0.00 , N/A)	641.7	N/A	7.8726 [8.0000]	98.4% { 111.9% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1563971	(4.97 , N/A) (N/A , -0.01 , N/A)	546.7	N/A	4.5244 [4.0000]	113.1% { 110.0% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 912572	(6.13 , N/A) (N/A , -0.01 , N/A)	566.9	N/A	2.1691 [2.0000]	108.5% { 96.3% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 796123	(7.07 , N/A) (N/A , -0.01 , N/A)	490.1	N/A	2.1178 [2.0000]	105.9% { 99.4% }			
13C8_PFOA_EIS	(421.0 / 376.0) 850381	(7.89 , N/A) (N/A , 0.00 , N/A)	626.5	N/A	1.9510 [2.0000]	97.5% { 103.9% }			
13C9_PFNA_EIS	(472.0 / 427.0) 330515	(8.62 , N/A) (N/A , -0.01 , N/A)	345.6	N/A	0.9380 [1.0000]	93.8% { 88.2% }			
13C6_PFDA_EIS	(519.0 / 474.0) 437882	(9.31 , N/A) (N/A , 0.00 , N/A)	288.6	N/A	1.1286 [1.0000]	112.9% { 103.7% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 557941	(9.72 , N/A) (N/A , 0.00 , N/A)	541.5	N/A	1.1867 [1.0000]	118.7% { 87.1% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 593456	(9.90 , N/A) (N/A , 0.00 , N/A)	527.8	N/A	1.1468 [1.0000]	114.7% { 94.1% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 486965	(10.13 , N/A) (N/A , 0.00 , N/A)	900.9	N/A	1.4257 [1.0000]	142.6% { 110.1% }			
13C3_PFBs_EIS	(302.0 / 80.0) 2288774	(6.08 , N/A) (N/A , -0.01 , N/A)	505.9	N/A	2.0950 [2.0000]	104.8% { 106.2% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1196544	(8.01 , N/A) (N/A , 0.00 , N/A)	685.2	N/A	2.0634 [2.0000]	103.2% { 106.2% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1891524	(9.45 , N/A) (N/A , -0.01 , N/A)	573.0	N/A	2.2182 [2.0000]	110.9% { 102.4% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 517448	(5.80 , N/A) (N/A , 0.00 , N/A)	648.5	N/A	4.0219 [4.0000]	100.5% { 96.8% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 636160	(7.54 , N/A) (N/A , 0.00 , N/A)	696.0	N/A	3.9789 [4.0000]	99.5% { 93.6% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 564896	(8.96 , N/A) (N/A , -0.01 , N/A)	462.4	N/A	3.5838 [4.0000]	89.6% { 78.0% }			
13C8_PFOA_EIS	(506.0 / 78.0) 2505176	(10.18 , N/A) (N/A , 0.00 , N/A)	935.2	N/A	2.2096 [2.0000]	110.5% { 99.7% }			
D3_NMeFOA_EIS	(515.0 / 169.0) 493292	(10.60 , N/A) (N/A , 0.00 , N/A)	892.9	N/A	2.2436 [2.0000]	112.2% { 107.0% }			
D5_NEtFOA_EIS	(531.0 / 169.0) 457270	(10.69 , N/A) (N/A , 0.00 , N/A)	1117.6	N/A	2.3342 [2.0000]	116.7% { 92.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 976085	(9.50 , N/A) (N/A , -0.01 , N/A)	435.4	N/A	4.1843 [4.0000]	104.6% { 97.8% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 813920	(9.68 , N/A) (N/A , 0.00 , N/A)	371.4	N/A	4.0737 [4.0000]	101.8% { 112.6% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 902474	(10.57 , N/A) (N/A , 0.00 , N/A)	996.4	N/A	25.6197 [20.0000]	128.1% { 93.9% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 361734	(10.66 , N/A) (N/A , 0.00 , N/A)	1225.3	N/A	25.3929 [20.0000]	127.0% { 86.4% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 2038929	(6.48 , N/A) (N/A , 0.00 , N/A)	617.8	N/A	8.7271 [8.0000]	109.1% { 98.4% }			

ANALYSIS SEQUENCE BLANKS

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 Client: AECOM
 Sequence: SB03989
 Calibration: 2253007

SDG:
 Project: Red Hill AFFF Assessment Sam
 Instrument: Saphira

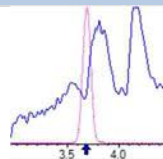
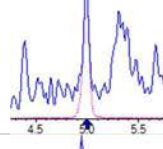
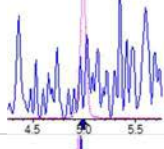
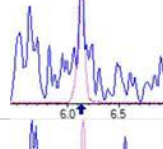
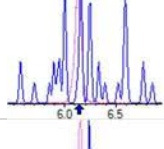
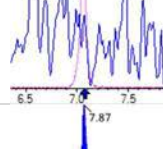
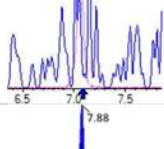
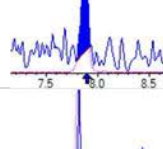
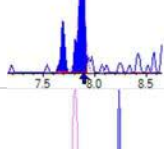
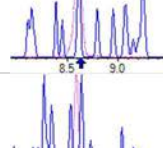
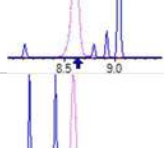
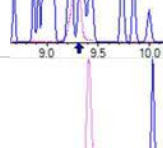
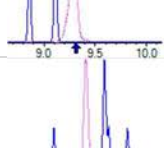
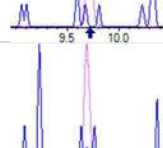
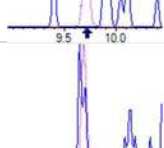
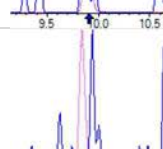
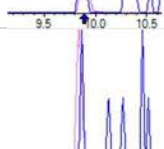
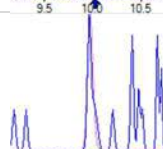
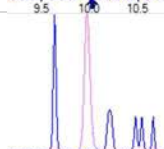
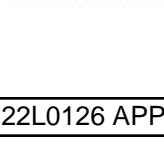
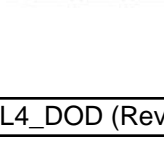
Lab Sample ID	Analyte	Found	Units	RL	C
SB03989-CCB3	PFBA	0.00	ng/mL	0.40	U
	PFPEA	0.00	ng/mL	0.20	U
	PFHXA	0.00	ng/mL	0.10	U
	PFHPA	0.00	ng/mL	0.10	U
	PFOA	0.00975	ng/mL	0.10	U
	PFNA	0.00	ng/mL	0.10	U
	PFDA	0.00	ng/mL	0.10	U
	PFUnA	0.00	ng/mL	0.10	U
	PFDOA	0.00	ng/mL	0.10	U
	PFTRDA	0.00	ng/mL	0.10	U
	PFTEDA	0.00	ng/mL	0.10	U
	PFBS	0.00	ng/mL	0.10	U
	PFPEs	0.00	ng/mL	0.10	U
	PFHXS	0.00	ng/mL	0.10	U
	PFHPS	0.00	ng/mL	0.10	U
	PFOS	0.0136	ng/mL	0.10	U
	PFNS	0.00	ng/mL	0.10	U
	PFDS	0.00	ng/mL	0.10	U
	PFDOS	0.00	ng/mL	0.10	U
	4:2FTS	0.00	ng/mL	0.40	U
	6:2FTS	0.00	ng/mL	0.40	U
	8:2FTS	0.00	ng/mL	0.40	U
	PFOSA	0.00	ng/mL	0.10	U
	NMeFOSA	0.00	ng/mL	0.40	U
	NEtFOSA	0.00	ng/mL	0.40	U
	NMeFOSAA	0.00	ng/mL	0.10	U
	NEtFOSAA	0.00	ng/mL	0.10	U
	NMeFOSE	0.00	ng/mL	0.40	U
	NEtFOSE	0.00	ng/mL	0.40	U
	HFPO-DA	0.00	ng/mL	0.20	U
	ADONA	0.00	ng/mL	0.20	U
	PFEESA	0.00	ng/mL	0.20	U
	PFMPA	0.00	ng/mL	0.20	U

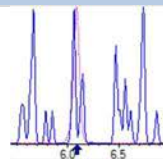
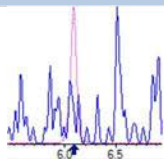
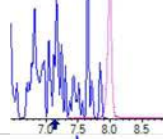
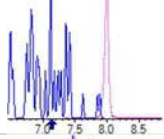
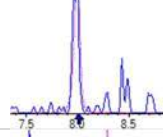
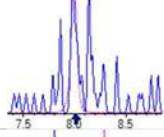
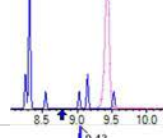
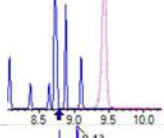
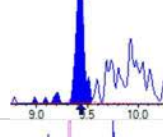
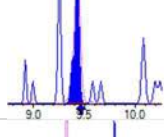
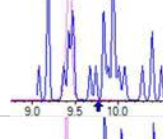
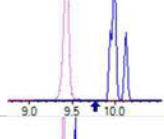
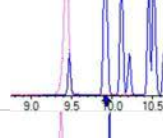
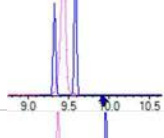
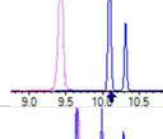
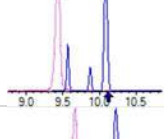
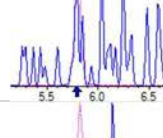
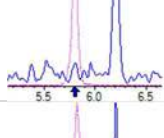
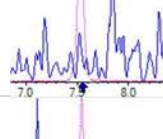
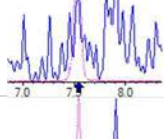
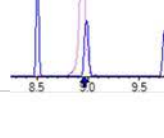
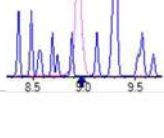
ANALYSIS SEQUENCE BLANKS

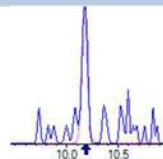
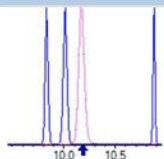
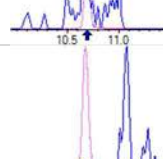
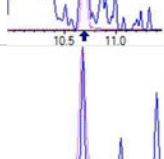
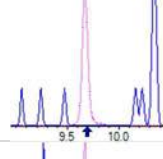
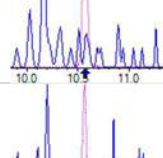
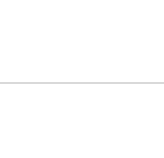
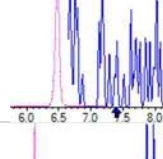
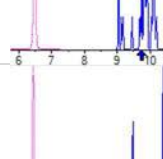
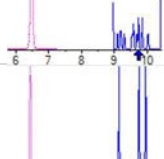

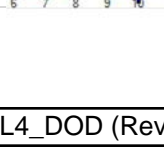
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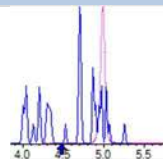
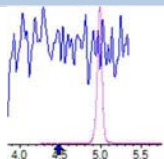
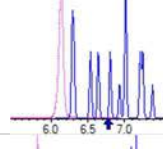
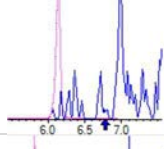
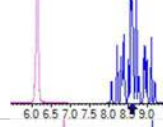
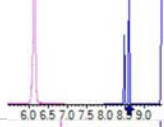
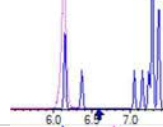
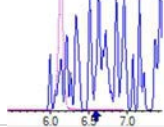
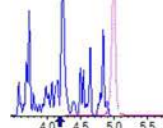
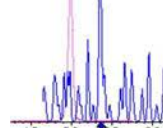
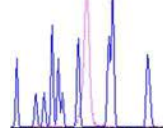
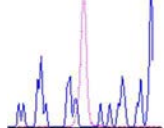
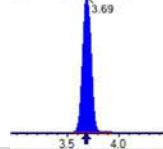
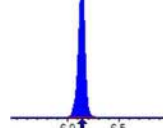
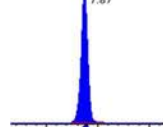
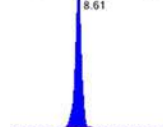
SDG:
 Project: Red Hill AFFF Assessment Sam
 Instrument: Saphira

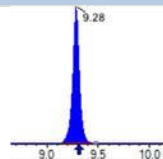
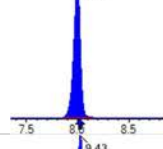
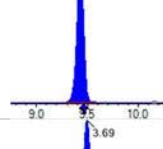
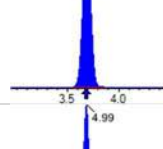
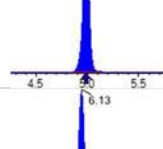
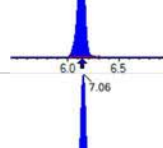
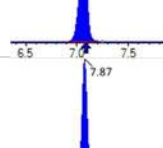
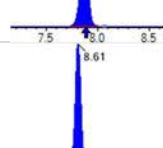
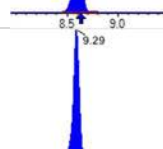
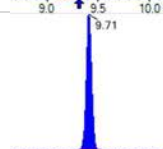
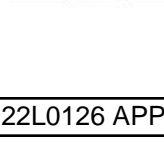
Lab Sample ID	Analyte	Found	Units	RL	C
SB03989-CCB3	PFMBA	0.00	ng/mL	0.20	U
	NFDHA	0.00	ng/mL	0.20	U
	9CL-PF3ONS	0.00	ng/mL	0.20	U
	11CL-PF3OUDS	0.00	ng/mL	0.20	U
	3:3FTCA	0.00	ng/mL	0.40	U
	5:3FTCA	0.00	ng/mL	0.40	U
	7:3FTCA	0.00	ng/mL	0.40	U
	13C4-PFBA	7.90	ng/mL		
	13C5-PFPEA	4.54	ng/mL		
	13C5-PFHXA	2.16	ng/mL		
	13C4-PFHPA	2.10	ng/mL		
	13C8-PFOA	2.25	ng/mL		
	13C9-PFNA	1.09	ng/mL		
	13C6-PFDA	1.01	ng/mL		
	13C7-PFUnA	1.12	ng/mL		
	13C2-PFDOA	1.09	ng/mL		
	13C2-PFTEDA	1.30	ng/mL		
	13C3-PFBS	2.05	ng/mL		
	13C3-PFHXS	2.00	ng/mL		
	13C8-PFOS	2.64	ng/mL		
	13C2-4:2FTS	3.96	ng/mL		
	13C2-6:2FTS	3.60	ng/mL		
	13C2-8:2FTS	3.99	ng/mL		
	13C8-PFOSA	2.58	ng/mL		
	D5-NETFOSA	2.93	ng/mL		
	D3-NMEFOSA	2.55	ng/mL		
	D3-NMEFOSAA	4.91	ng/mL		
	D5-NETFOSAA	5.10	ng/mL		
	D7-NMEFOSE	33.7	ng/mL		
	D9-NETFOSE	30.9	ng/mL		
	13C3-HFPO-DA	8.98	ng/mL		

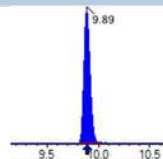
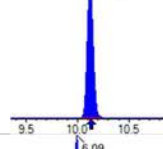
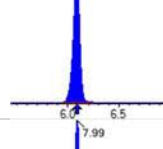
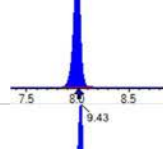
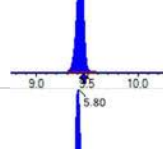
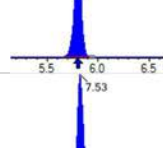
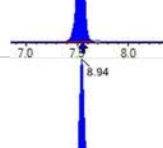
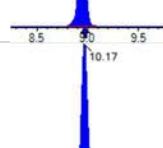
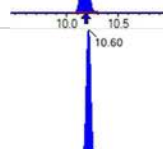
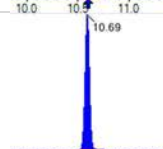
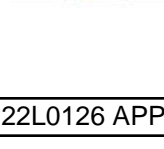
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(263.0 / 219.0) N/A (263.0 / 69.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) 3904 (413.0 / 169.0) 2779	(7.87 , 1.00) (0.00 , N/A , -0.4)	18.4 32.1	0.7120 211.9 227.3	0.0097	N/A			IR2,
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDaA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

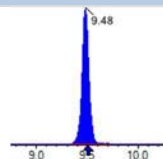
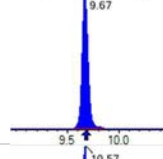
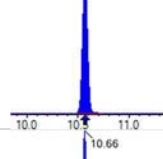
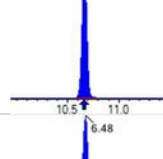
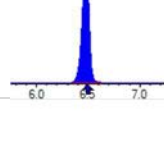
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) N/A (299.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	(349.0 / 80.0) N/A (349.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	(399.0 / 80.0) N/A (399.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) 15629 (499.0 / 99.0) 2694	(9.43 , 1.00) (-0.01 , N/A , -0.3)	25.6 42.7	0.1724 75.5 76.6	0.0136	N/A			MI5 DG 2022-12-28
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(699.0 / 80.0) N/A (699.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) N/A (427.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(512.0 / 219.0) N/A (512.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSE	(630.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-PF3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(295.0 / 201.0) N/A (295.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBa_IIS	(216.0 / 172.0) 275866	(3.69 , N/A) (N/A , 0.01 , N/A)	588.7	N/A	1.0205 [1.0000]	102.1% { 95.9% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 355375	(6.14 , N/A) (N/A , 0.00 , N/A)	637.5	N/A	0.8949 [1.0000]	89.5% { 86.7% }			
13C4_PFOA_IIS	(417.0 / 372.0) 349324	(7.87 , N/A) (N/A , -0.02 , N/A)	545.3	N/A	0.8744 [1.0000]	87.4% { 89.2% }			
13C5_PFNA_IIS	(468.0 / 423.0) 292882	(8.61 , N/A) (N/A , -0.02 , N/A)	560.7	N/A	0.8860 [1.0000]	88.6% { 85.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (Δ RT-[min], Δ RT- CV[min], Δ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 341507	(9.28, N/A) (N/A, -0.02, N/A)	355.8	N/A	0.9564 [1.0000]	95.6% { 94.2% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 647492	(8.00, N/A) (N/A, -0.02, N/A)	687.4	N/A	0.9284 [1.0000]	92.8% { 98.5% }			
13C4_PFOS_IIS	(503.0 / 79.9) 576474	(9.43, N/A) (N/A, -0.02, N/A)	493.5	N/A	0.8360 [1.0000]	83.6% { 85.4% }			
13C4_PFBA_EIS	(217.0 / 172.0) 2342102	(3.69, N/A) (N/A, 0.01, N/A)	774.4	N/A	7.9005 [8.0000]	98.8% { 99.2% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1475923	(4.99, N/A) (N/A, 0.01, N/A)	634.5	N/A	4.5446 [4.0000]	113.6% { 103.8% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 852424	(6.13, N/A) (N/A, 0.00, N/A)	513.5	N/A	2.1566 [2.0000]	107.8% { 89.9% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 740635	(7.06, N/A) (N/A, -0.01, N/A)	530.2	N/A	2.0971 [2.0000]	104.9% { 92.4% }			
13C8_PFOA_EIS	(421.0 / 376.0) 862061	(7.87, N/A) (N/A, -0.02, N/A)	578.8	N/A	2.2520 [2.0000]	112.6% { 105.3% }			
13C9_PFNA_EIS	(472.0 / 427.0) 352424	(8.61, N/A) (N/A, -0.03, N/A)	427.8	N/A	1.0931 [1.0000]	109.3% { 94.1% }			
13C6_PFDA_EIS	(519.0 / 474.0) 450774	(9.29, N/A) (N/A, -0.02, N/A)	324.6	N/A	1.0090 [1.0000]	100.9% { 106.8% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 603911	(9.71, N/A) (N/A, -0.01, N/A)	494.2	N/A	1.1155 [1.0000]	111.5% { 94.2% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 649051	(9.89 , N/A) (N/A , -0.01 , N/A)	721.0	N/A	1.0892 [1.0000]	108.9% { 102.9% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 509625	(10.12 , N/A) (N/A , -0.01 , N/A)	324230.8	N/A	1.2957 [1.0000]	129.6% { 115.2% }			
13C3_PFBs_EIS	(302.0 / 80.0) 2230208	(6.09 , N/A) (N/A , 0.00 , N/A)	458.8	N/A	2.0455 [2.0000]	102.3% { 103.5% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1156456	(7.99 , N/A) (N/A , -0.02 , N/A)	718.5	N/A	1.9982 [2.0000]	99.9% { 102.6% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1974246	(9.43 , N/A) (N/A , -0.02 , N/A)	584.1	N/A	2.6444 [2.0000]	132.2% { 106.9% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 507851	(5.80 , N/A) (N/A , 0.00 , N/A)	472.0	N/A	3.9552 [4.0000]	98.9% { 95.0% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 574574	(7.53 , N/A) (N/A , -0.02 , N/A)	537.4	N/A	3.6008 [4.0000]	90.0% { 84.5% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 627989	(8.94 , N/A) (N/A , -0.03 , N/A)	579.8	N/A	3.9920 [4.0000]	99.8% { 86.8% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 2559479	(10.17 , N/A) (N/A , -0.01 , N/A)	702.9	N/A	2.5785 [2.0000]	128.9% { 101.8% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 491361	(10.60 , N/A) (N/A , 0.00 , N/A)	750.1	N/A	2.5525 [2.0000]	127.6% { 106.6% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 502624	(10.69 , N/A) (N/A , 0.00 , N/A)	950.4	N/A	2.9304 [2.0000]	146.5% { 102.1% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 1002813	(9.48 , N/A) (N/A , -0.02 , N/A)	373.0	N/A	4.9100 [4.0000]	122.8% { 100.5% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 892894	(9.67 , N/A) (N/A , -0.01 , N/A)	227.6	N/A	5.1042 [4.0000]	127.6% { 123.5% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 1040706	(10.57 , N/A) (N/A , 0.00 , N/A)	1143.4	N/A	33.7439 [20.0000]	168.7% { 108.3% }			S2,
D9_NEtFOSE_EIS	(639.0 / 58.9) 385450	(10.66 , N/A) (N/A , 0.00 , N/A)	1230.9	N/A	30.9044 [20.0000]	154.5% { 92.1% }			S2,
13C3_HFPODA_EIS	(287.0 / 169.0) 1971111	(6.48 , N/A) (N/A , -0.01 , N/A)	714.3	N/A	8.9800 [8.0000]	112.2% { 95.1% }			

ANALYSIS SEQUENCE BLANKS

Laboratory: APPL, LLC
 Client: AECOM
 Sequence: SB03989
 Calibration: 2253007

SDG:
 Project: Red Hill AFFF Assessment Sam
 Instrument: Saphira

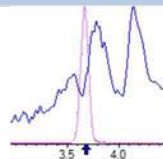
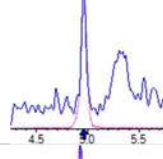
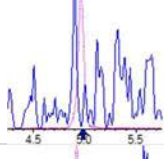
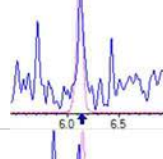
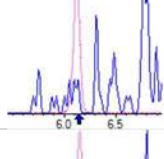
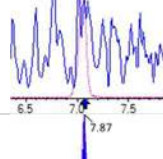
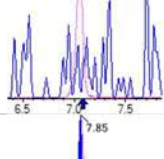
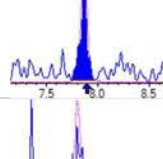
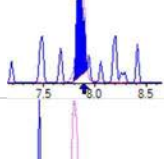
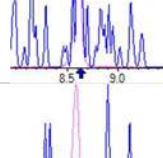
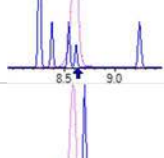
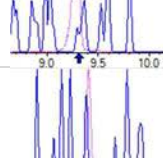
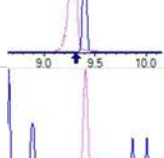
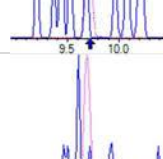
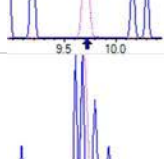
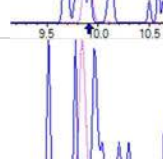
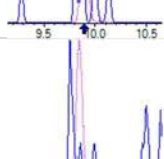
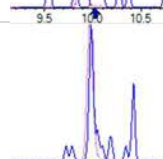
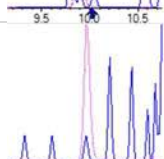
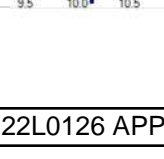
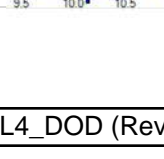
Lab Sample ID	Analyte	Found	Units	RL	C
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	PFPEA	0.00	ng/mL	0.20	U
	PFHXA	0.00	ng/mL	0.10	U
	PFHPA	0.00	ng/mL	0.10	U
	PFOA	0.0138	ng/mL	0.10	U
	PFNA	0.00	ng/mL	0.10	U
	PFDA	0.00	ng/mL	0.10	U
	PFUnA	0.00	ng/mL	0.10	U
	PFDOA	0.00	ng/mL	0.10	U
	PFTRDA	0.00	ng/mL	0.10	U
	PFTEDA	0.00	ng/mL	0.10	U
	PFBS	0.00	ng/mL	0.10	U
	PFPEs	0.00	ng/mL	0.10	U
	PFHXS	0.00	ng/mL	0.10	U
	PFHPS	0.00	ng/mL	0.10	U
	PFOS	0.00	ng/mL	0.10	U
	PFNS	0.00	ng/mL	0.10	U
	PFDS	0.00	ng/mL	0.10	U
	PFDOS	0.00	ng/mL	0.10	U
	4:2FTS	0.00	ng/mL	0.40	U
	6:2FTS	0.00	ng/mL	0.40	U
	8:2FTS	0.00	ng/mL	0.40	U
	PFOSA	0.00	ng/mL	0.10	U
	NMeFOSA	0.00	ng/mL	0.40	U
	NEtFOSA	0.00	ng/mL	0.40	U
	NMeFOSAA	0.00	ng/mL	0.10	U
	NEtFOSAA	0.00	ng/mL	0.10	U
	NMeFOSE	0.00	ng/mL	0.40	U
	NEtFOSE	0.00	ng/mL	0.40	U
	HFPO-DA	0.00	ng/mL	0.20	U
	ADONA	0.00	ng/mL	0.20	U
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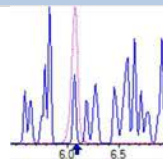
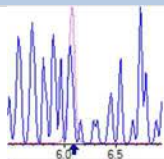
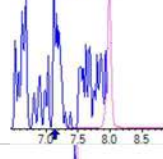
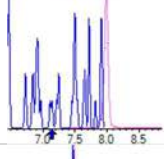
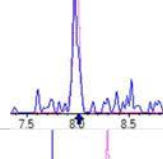
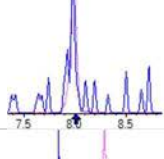
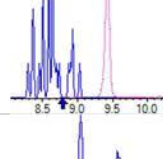
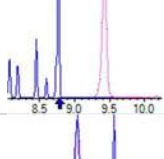
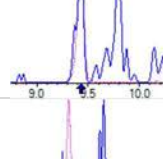
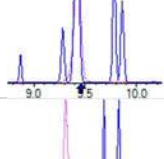
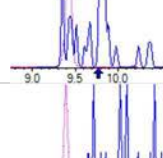
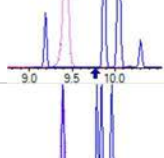
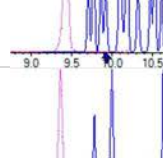
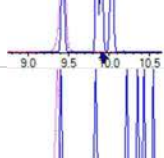
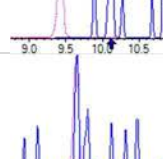
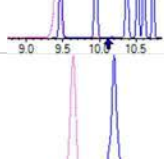
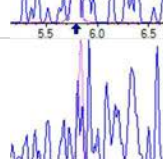
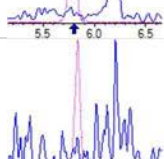
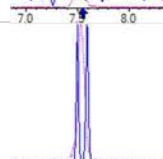
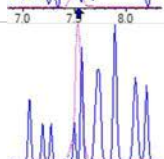
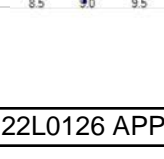
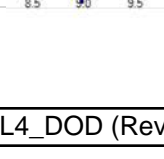
ANALYSIS SEQUENCE BLANKS

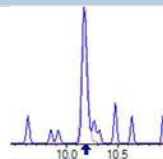
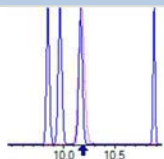
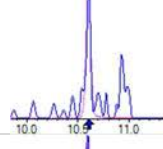
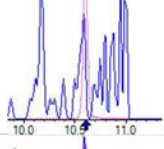
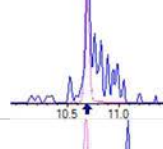
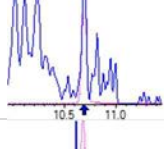
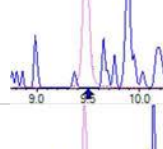
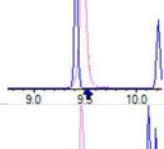
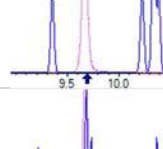
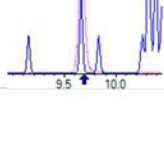
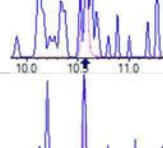
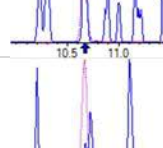
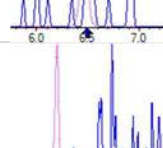
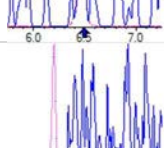
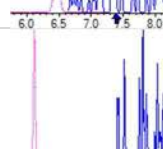
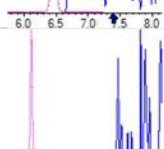
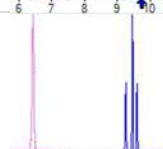
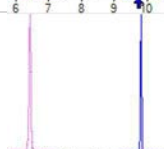
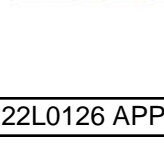
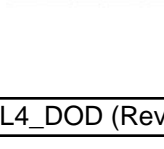
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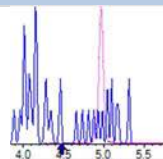
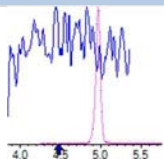
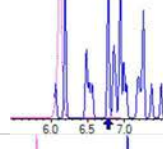
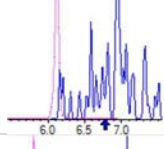
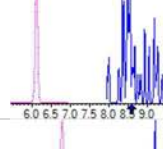
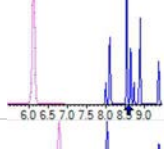
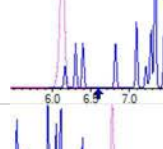
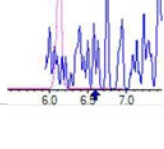
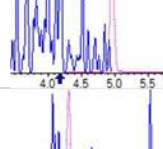
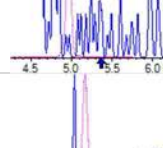
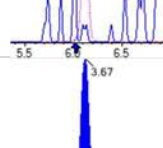
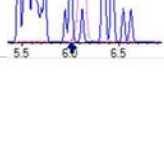
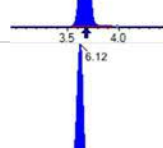
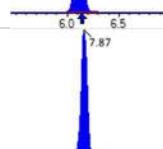
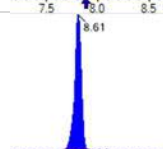
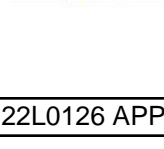
SDG:
 Project: Red Hill AFFF Assessment Sam
 Instrument: Saphira

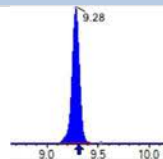
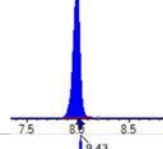
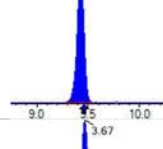
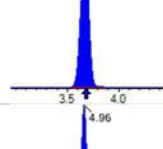
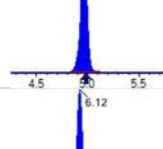
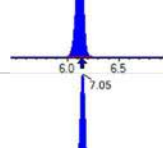
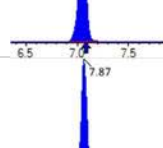
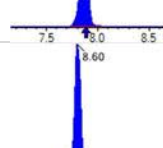
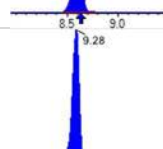
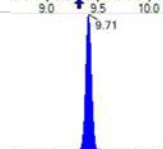
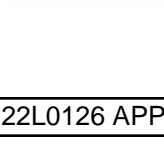
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	NFDHA	0.00	ng/mL	0.20	U
	9CL-PF3ONS	0.00	ng/mL	0.20	U
	11CL-PF3OUDS	0.00	ng/mL	0.20	U
	3:3FTCA	0.00	ng/mL	0.40	U
	5:3FTCA	0.00	ng/mL	0.40	U
	7:3FTCA	0.00	ng/mL	0.40	U
	13C4-PFBA	8.22	ng/mL		
	13C5-PFPEA	4.24	ng/mL		
	13C5-PFHXA	2.34	ng/mL		
	13C4-PFHPA	2.07	ng/mL		
	13C8-PFOA	2.13	ng/mL		
	13C9-PFNA	1.02	ng/mL		
	13C6-PFDA	0.967	ng/mL		
	13C7-PFUnA	1.13	ng/mL		
	13C2-PFDOA	0.915	ng/mL		
	13C2-PFTEDA	1.18	ng/mL		
	13C3-PFBS	2.16	ng/mL		
	13C3-PFHXS	2.01	ng/mL		
	13C8-PFOS	2.14	ng/mL		
	13C2-4:2FTS	4.25	ng/mL		
	13C2-6:2FTS	4.26	ng/mL		
	13C2-8:2FTS	3.48	ng/mL		
	13C8-PFOSA	2.30	ng/mL		
	D5-NETFOSA	2.64	ng/mL		
	D3-NMEFOSA	2.33	ng/mL		
	D3-NMEFOSAA	4.43	ng/mL		
	D5-NETFOSAA	4.55	ng/mL		
	D7-NMEFOSE	29.9	ng/mL		
	D9-NETFOSE	32.8	ng/mL		
	13C3-HFPO-DA	8.99	ng/mL		

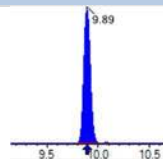
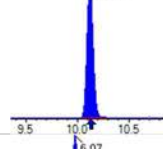
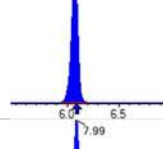
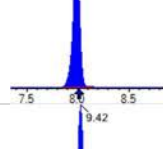
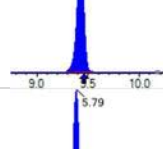
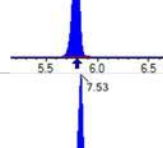
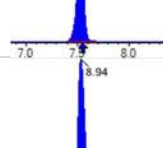
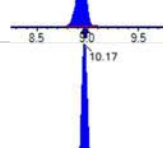
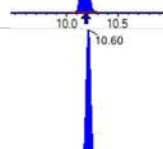
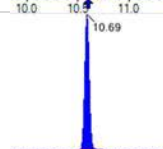
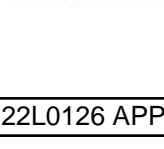
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(263.0 / 219.0) N/A (263.0 / 69.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) 5607 (413.0 / 169.0) 1501	(7.87 , 1.00) (0.00 , N/A , 0.8)	27.6 19.6	0.2677 79.7 85.5	0.0138	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

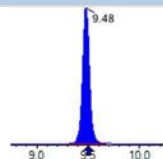
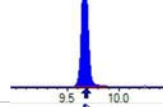
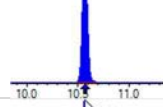
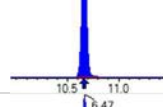
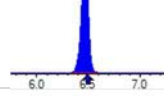
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) N/A (299.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	(349.0 / 80.0) N/A (349.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	(399.0 / 80.0) N/A (399.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) N/A (499.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(699.0 / 80.0) N/A (699.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) N/A (427.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(512.0 / 219.0) N/A (512.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSE	(630.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-PF3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(295.0 / 201.0) N/A (295.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 250648	(3.67 , N/A) (N/A , -0.01 , N/A)	636.2	N/A	0.9272 [1.0000]	92.7% { 87.2% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 378051	(6.12 , N/A) (N/A , -0.01 , N/A)	419.9	N/A	0.9520 [1.0000]	95.2% { 92.2% }			
13C4_PFOA_IIS	(417.0 / 372.0) 375540	(7.87 , N/A) (N/A , -0.02 , N/A)	525.6	N/A	0.9401 [1.0000]	94.0% { 95.9% }			
13C5_PFNA_IIS	(468.0 / 423.0) 331793	(8.61 , N/A) (N/A , -0.02 , N/A)	473.1	N/A	1.0037 [1.0000]	100.4% { 96.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 337028	(9.28 , N/A) (N/A , -0.03 , N/A)	308.9	N/A	0.9439 [1.0000]	94.4% { 93.0% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 642716	(7.99 , N/A) (N/A , -0.02 , N/A)	587.2	N/A	0.9215 [1.0000]	92.2% { 97.7% }			
13C4_PFOS_IIS	(503.0 / 79.9) 620265	(9.43 , N/A) (N/A , -0.03 , N/A)	536.3	N/A	0.8995 [1.0000]	90.0% { 91.8% }			
13C4_PFBA_EIS	(217.0 / 172.0) 2215000	(3.67 , N/A) (N/A , -0.01 , N/A)	802.1	N/A	8.2235 [8.0000]	102.8% { 93.8% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1463184	(4.96 , N/A) (N/A , -0.01 , N/A)	600.6	N/A	4.2351 [4.0000]	105.9% { 102.9% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 983307	(6.12 , N/A) (N/A , -0.02 , N/A)	581.7	N/A	2.3385 [2.0000]	116.9% { 103.7% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 779335	(7.05 , N/A) (N/A , -0.02 , N/A)	580.0	N/A	2.0743 [2.0000]	103.7% { 97.3% }			
13C8_PFOA_EIS	(421.0 / 376.0) 875639	(7.87 , N/A) (N/A , -0.02 , N/A)	638.2	N/A	2.1278 [2.0000]	106.4% { 107.0% }			
13C9_PFNA_EIS	(472.0 / 427.0) 370917	(8.60 , N/A) (N/A , -0.03 , N/A)	434.1	N/A	1.0155 [1.0000]	101.6% { 99.0% }			
13C6_PFDA_EIS	(519.0 / 474.0) 426226	(9.28 , N/A) (N/A , -0.03 , N/A)	240.7	N/A	0.9667 [1.0000]	96.7% { 101.0% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 605776	(9.71 , N/A) (N/A , -0.02 , N/A)	636.1	N/A	1.1338 [1.0000]	113.4% { 94.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 537901	(9.89 , N/A) (N/A , -0.01 , N/A)	449.8	N/A	0.9147 [1.0000]	91.5% { 85.3% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 456744	(10.12 , N/A) (N/A , -0.01 , N/A)	875.3	N/A	1.1767 [1.0000]	117.7% { 103.2% }			
13C3_PFBs_EIS	(302.0 / 80.0) 2338528	(6.07 , N/A) (N/A , -0.02 , N/A)	611.9	N/A	2.1607 [2.0000]	108.0% { 108.5% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1154455	(7.99 , N/A) (N/A , -0.02 , N/A)	690.6	N/A	2.0096 [2.0000]	100.5% { 102.4% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1719248	(9.42 , N/A) (N/A , -0.03 , N/A)	490.4	N/A	2.1402 [2.0000]	107.0% { 93.1% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 542126	(5.79 , N/A) (N/A , -0.01 , N/A)	703.7	N/A	4.2535 [4.0000]	106.3% { 101.4% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 675442	(7.53 , N/A) (N/A , -0.02 , N/A)	749.0	N/A	4.2644 [4.0000]	106.6% { 99.3% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 543083	(8.94 , N/A) (N/A , -0.04 , N/A)	477.9	N/A	3.4779 [4.0000]	86.9% { 75.0% }			
13C8_PFOA_EIS	(506.0 / 78.0) 2455600	(10.17 , N/A) (N/A , 0.00 , N/A)	570.8	N/A	2.2992 [2.0000]	115.0% { 97.7% }			
D3_NMeFOA_EIS	(515.0 / 169.0) 483116	(10.60 , N/A) (N/A , 0.00 , N/A)	949.9	N/A	2.3325 [2.0000]	116.6% { 104.8% }			
D5_NEtFOA_EIS	(531.0 / 169.0) 487272	(10.69 , N/A) (N/A , 0.00 , N/A)	1759.3	N/A	2.6403 [2.0000]	132.0% { 99.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 974250	(9.48 , N/A) (N/A , -0.03 , N/A)	319.0	N/A	4.4334 [4.0000]	110.8% { 97.6% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 856425	(9.67 , N/A) (N/A , -0.02 , N/A)	398.6	N/A	4.5501 [4.0000]	113.8% { 118.5% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 993808	(10.57 , N/A) (N/A , 0.00 , N/A)	846.4	N/A	29.9483 [20.0000]	149.7% { 103.4% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 439693	(10.66 , N/A) (N/A , 0.00 , N/A)	1412.9	N/A	32.7646 [20.0000]	163.8% { 105.0% }			S2,
13C3_HFPODA_EIS	(287.0 / 169.0) 2098792	(6.47 , N/A) (N/A , -0.02 , N/A)	615.5	N/A	8.9882 [8.0000]	112.4% { 101.3% }			

ANALYSIS SEQUENCE BLANKS

Laboratory: APPL, LLC
 Client: AECOM
 Sequence: SB04012
 Calibration: 2253011

SDG:
 Project: Red Hill AFFF Assessment Sam
 Instrument: Saphira

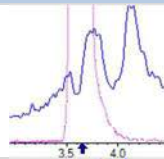
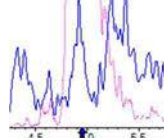
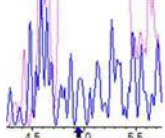
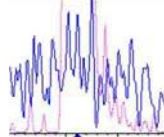
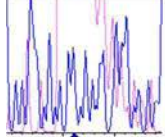
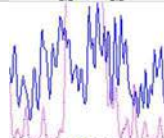
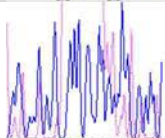
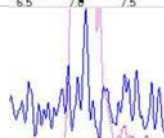
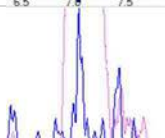
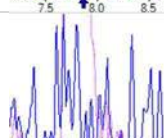
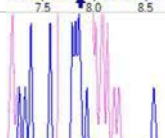
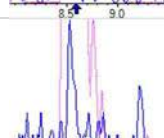
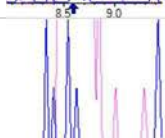
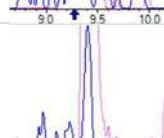
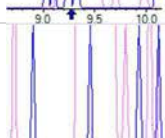
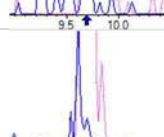
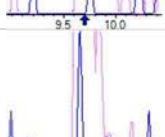
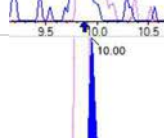
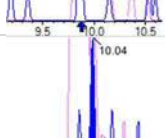
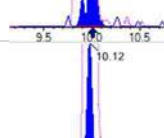
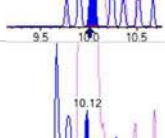
Lab Sample ID	Analyte	Found	Units	RL	C
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	PFHXA	0.00	ng/mL	0.10	U
	PFHPA	0.00	ng/mL	0.10	U
	PFOA	0.00	ng/mL	0.10	U
	PFNA	0.00	ng/mL	0.10	U
	PFDA	0.00	ng/mL	0.10	U
	PFUnA	0.00	ng/mL	0.10	U
	PFDOA	0.00	ng/mL	0.10	U
	PFTRDA	0.0331	ng/mL	0.10	U
	PFTEDA	0.0288	ng/mL	0.10	U
	PFBS	0.00	ng/mL	0.10	U
	PFPEs	0.00	ng/mL	0.10	U
	PFHXS	0.00	ng/mL	0.10	U
	PFHPS	0.00	ng/mL	0.10	U
	PFOS	0.00972	ng/mL	0.10	U
	PFNS	0.00	ng/mL	0.10	U
	PFDS	0.00	ng/mL	0.10	U
	PFDOS	0.00	ng/mL	0.10	U
	4:2FTS	0.00	ng/mL	0.40	U
	6:2FTS	0.00	ng/mL	0.40	U
	8:2FTS	0.00	ng/mL	0.40	U
	PFOSA	0.00	ng/mL	0.10	U
	NMeFOSA	0.00	ng/mL	0.40	U
	NEtFOSA	0.00	ng/mL	0.40	U
	NMeFOSAA	0.00	ng/mL	0.10	U
	NEtFOSAA	0.0238	ng/mL	0.10	U
	NMeFOSE	0.0920	ng/mL	0.40	U
	NEtFOSE	0.185	ng/mL	0.40	U
	HFPO-DA	0.00	ng/mL	0.20	U
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	PFMPA	0.00	ng/mL	0.20	U

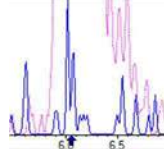
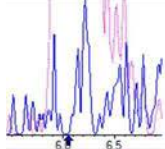
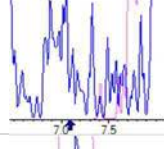
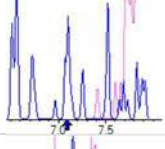
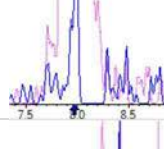
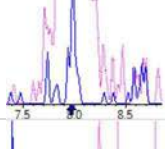
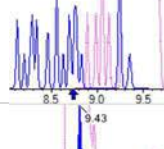
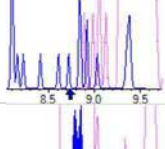
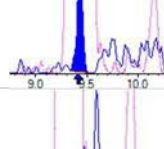
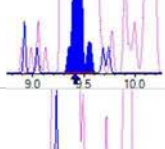
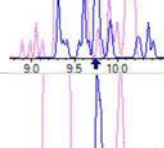
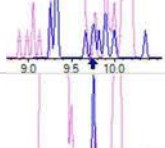
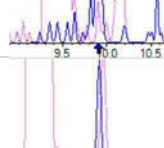
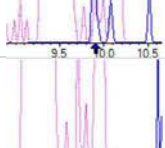
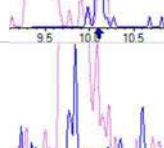
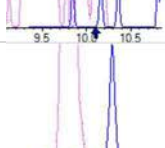
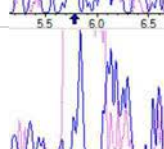
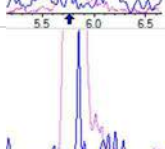
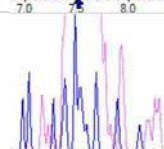
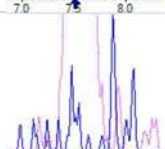
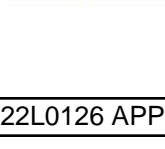
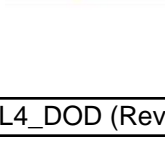
ANALYSIS SEQUENCE BLANKS

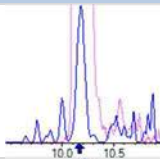
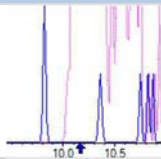
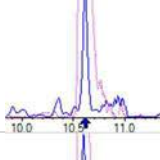
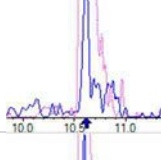
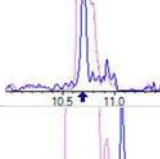
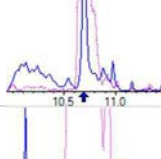
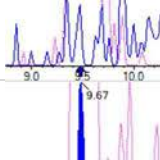
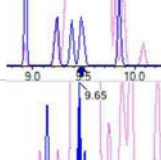
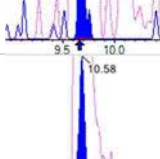
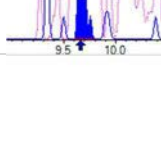
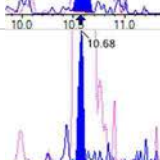
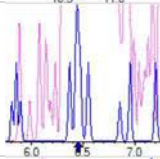
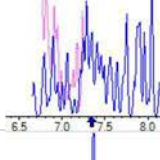
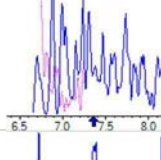
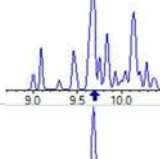
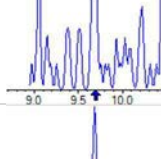
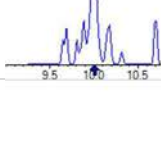
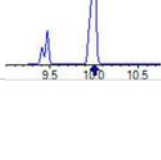
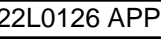
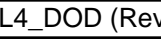
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 Calibration: 2253011

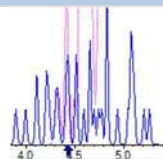
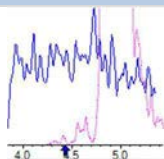
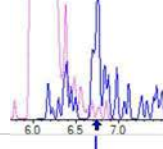
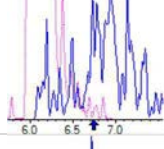
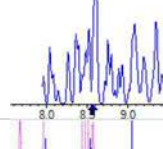
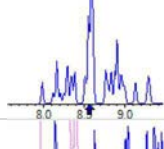
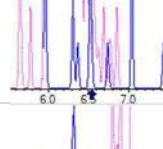
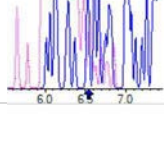
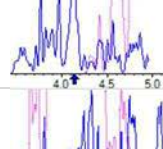
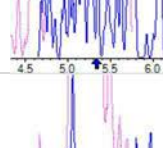
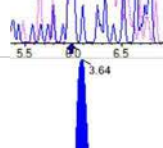
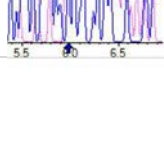
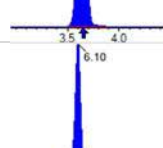
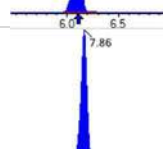
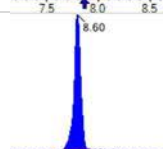
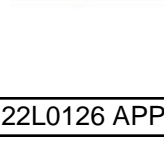
SDG:
 Project: Red Hill AFFF Assessment Sam
 Instrument: Saphira

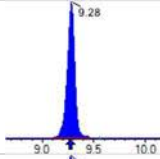










Lab Sample ID	Analyte	Found	Units	RL	C
SB04012-ICB1	PFMBA	0.00	ng/mL	0.20	U
	NFDHA	0.00	ng/mL	0.20	U
	9CL-PF3ONS	0.00	ng/mL	0.20	U
	11CL-PF3OUDS	0.00	ng/mL	0.20	U
	3:3FTCA	0.00	ng/mL	0.40	U
	5:3FTCA	0.00	ng/mL	0.40	U
	7:3FTCA	0.00	ng/mL	0.40	U
	13C4-PFBA	8.17	ng/mL		
	13C5-PFPEA	4.35	ng/mL		
	13C5-PFHXA	2.00	ng/mL		
	13C4-PFHPA	2.22	ng/mL		
	13C8-PFOA	1.97	ng/mL		
	13C9-PFNA	1.16	ng/mL		
	13C6-PFDA	0.972	ng/mL		
	13C7-PFUnA	1.21	ng/mL		
	13C2-PFDOA	1.16	ng/mL		
	13C2-PFTEDA	1.25	ng/mL		
	13C3-PFBS	2.00	ng/mL		
	13C3-PFHXS	1.98	ng/mL		
	13C8-PFOS	2.19	ng/mL		
	13C2-4:2FTS	4.45	ng/mL		
	13C2-6:2FTS	4.18	ng/mL		
	13C2-8:2FTS	3.57	ng/mL		
	13C8-PFOSA	2.16	ng/mL		
	D5-NETFOSA	2.30	ng/mL		
	D3-NMEFOSA	2.16	ng/mL		
	D3-NMEFOSAA	4.55	ng/mL		
	D5-NETFOSAA	4.63	ng/mL		
	D7-NMEFOSE	25.6	ng/mL		
	D9-NETFOSE	25.3	ng/mL		
	13C3-HFPO-DA	8.36	ng/mL		

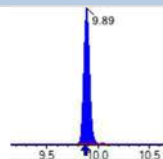
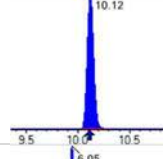
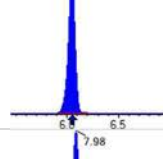
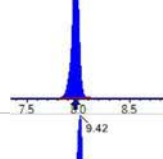
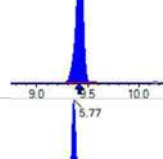
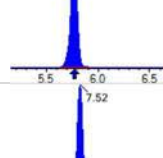
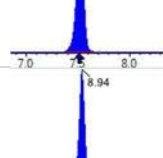
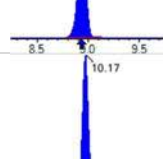
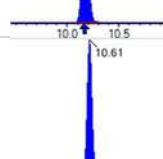
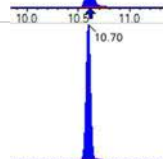
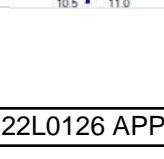
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(263.0 / 219.0) N/A (263.0 / 69.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDaA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) 15713 (663.0 / 169.0) 1671	(10.00, 1.01) (N/A, -0.01, -2.2)	65.0 14.1	0.1063 48.8 48.8	0.0331	N/A			IR1,
PFTeDA	(713.0 / 669.0) 11292 (713.0 / 169.0) 873	(10.12, 1.00) (0.00, N/A, 0.0)	39.1 6.0	0.0773 39.2 39.2	0.0288	N/A			IR1,

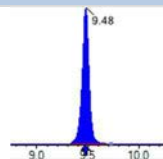
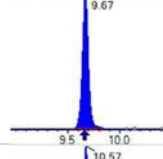
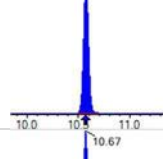
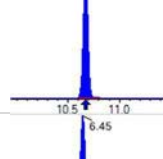
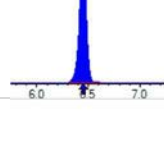
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) N/A (299.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	(349.0 / 80.0) N/A (349.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	(399.0 / 80.0) N/A (399.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) 9292 (499.0 / 99.0) 4650	(9.43 , 1.00) (0.01 , N/A , -0.5)	33.6 187.5	0.5004 240.5 240.5	0.0097	N/A			IR2,
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(699.0 / 80.0) N/A (699.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) N/A (427.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(512.0 / 219.0) N/A (512.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSAA	(584.0 / 419.0) 5082 (584.0 / 526.0) 2675	(9.67 , 1.00) (0.01 , N/A , 1.6)	174.9 148.7	0.5264 88.7 88.7	0.0238	N/A			
NMeFOSE	(616.0 / 59.0) 5187	(10.58 , 1.00) (0.01 , N/A , 0.0)	47.5	N/A 0.0 0.0	0.0920	N/A			
NEtFOSE	(630.0 / 59.0) 1185	(10.68 , 1.00) (0.00 , N/A , 0.0)	9.8	N/A 0.0 0.0	0.1846	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9Cl-Pf3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11Cl-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(295.0 / 201.0) N/A (295.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 230902	(3.64, N/A) (N/A, -0.01, N/A)	539.2	N/A	1.0722 [1.0000]	107.2% { 100.9% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 374153	(6.10, N/A) (N/A, 0.00, N/A)	483.3	N/A	0.9856 [1.0000]	98.6% { 96.3% }			
13C4_PFOA_IIS	(417.0 / 372.0) 369015	(7.86, N/A) (N/A, 0.01, N/A)	469.0	N/A	1.0223 [1.0000]	102.2% { 98.3% }			
13C5_PFNA_IIS	(468.0 / 423.0) 275679	(8.60, N/A) (N/A, 0.01, N/A)	415.6	N/A	0.9375 [1.0000]	93.7% { 90.2% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (Δ RT-[min], Δ RT- CV[min], Δ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 330272	(9.28 , N/A) (N/A , 0.02 , N/A)	320.5	N/A	0.9695 [1.0000]	97.0% { 90.6% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 595423	(7.98 , N/A) (N/A , 0.01 , N/A)	638.7	N/A	0.9840 [1.0000]	98.4% { 93.9% }			
13C4_PFOS_IIS	(503.0 / 79.9) 621542	(9.42 , N/A) (N/A , 0.01 , N/A)	432.2	N/A	0.9639 [1.0000]	96.4% { 100.3% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1893105	(3.63 , N/A) (N/A , -0.01 , N/A)	628.8	N/A	8.1663 [8.0000]	102.1% { 102.2% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1226991	(4.93 , N/A) (N/A , -0.01 , N/A)	666.6	N/A	4.3468 [4.0000]	108.7% { 103.7% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 766190	(6.10 , N/A) (N/A , 0.00 , N/A)	493.8	N/A	2.0012 [2.0000]	100.1% { 102.4% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 739200	(7.04 , N/A) (N/A , 0.00 , N/A)	528.3	N/A	2.2225 [2.0000]	111.1% { 107.6% }			
13C8_PFOA_EIS	(421.0 / 376.0) 744353	(7.86 , N/A) (N/A , 0.01 , N/A)	594.8	N/A	1.9715 [2.0000]	98.6% { 97.2% }			
13C9_PFNA_EIS	(472.0 / 427.0) 331452	(8.60 , N/A) (N/A , 0.01 , N/A)	570.6	N/A	1.1571 [1.0000]	115.7% { 108.3% }			
13C6_PFDA_EIS	(519.0 / 474.0) 387935	(9.28 , N/A) (N/A , 0.01 , N/A)	338.9	N/A	0.9724 [1.0000]	97.2% { 89.9% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 595609	(9.71 , N/A) (N/A , 0.01 , N/A)	663.1	N/A	1.2140 [1.0000]	121.4% { 106.1% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 568211	(9.89 , N/A) (N/A , 0.01 , N/A)	505.8	N/A	1.1606 [1.0000]	116.1% { 98.3% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 387296	(10.12 , N/A) (N/A , 0.00 , N/A)	1325.4	N/A	1.2484 [1.0000]	124.8% { 115.9% }			
13C3_PFBs_EIS	(302.0 / 80.0) 1806435	(6.05 , N/A) (N/A , 0.00 , N/A)	522.8	N/A	2.0046 [2.0000]	100.2% { 98.7% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 964498	(7.98 , N/A) (N/A , 0.01 , N/A)	628.9	N/A	1.9767 [2.0000]	98.8% { 97.0% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1642527	(9.42 , N/A) (N/A , 0.01 , N/A)	367.4	N/A	2.1929 [2.0000]	109.6% { 100.1% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 453328	(5.77 , N/A) (N/A , -0.01 , N/A)	723.8	N/A	4.4527 [4.0000]	111.3% { 104.5% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 562829	(7.52 , N/A) (N/A , 0.01 , N/A)	842.5	N/A	4.1781 [4.0000]	104.5% { 97.7% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 606756	(8.94 , N/A) (N/A , 0.01 , N/A)	459.8	N/A	3.5732 [4.0000]	89.3% { 95.5% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 1887286	(10.17 , N/A) (N/A , 0.01 , N/A)	878.5	N/A	2.1588 [2.0000]	107.9% { 104.9% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 357077	(10.61 , N/A) (N/A , 0.00 , N/A)	998.5	N/A	2.1599 [2.0000]	108.0% { 96.7% }			
D5_NeFOSA_EIS	(531.0 / 169.0) 348864	(10.70 , N/A) (N/A , 0.00 , N/A)	904.8	N/A	2.3039 [2.0000]	115.2% { 102.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 1071843	(9.48 , N/A) (N/A , 0.01 , N/A)	440.9	N/A	4.5481 [4.0000]	113.7% { 105.3% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 867768	(9.67 , N/A) (N/A , 0.01 , N/A)	109.4	N/A	4.6311 [4.0000]	115.8% { 119.9% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 924009	(10.57 , N/A) (N/A , 0.01 , N/A)	1089.6	N/A	25.5822 [20.0000]	127.9% { 114.5% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 421620	(10.67 , N/A) (N/A , 0.01 , N/A)	1075.1	N/A	25.3140 [20.0000]	126.6% { 110.4% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1789651	(6.45 , N/A) (N/A , 0.00 , N/A)	696.8	N/A	8.3556 [8.0000]	104.4% { 101.7% }			

ANALYSIS SEQUENCE BLANKS

Laboratory: APPL, LLC
 Client: AECOM
 Sequence: SB04022
 Calibration: 2253011

SDG:
 Project: Red Hill AFFF Assessment Sam
 Instrument: Saphira

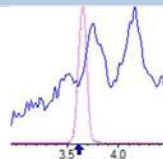
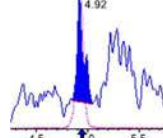
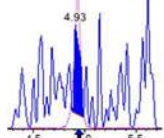
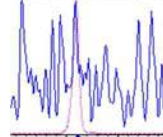
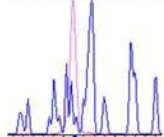
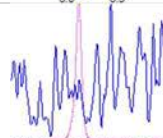
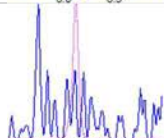
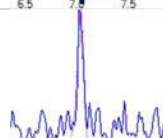
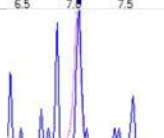
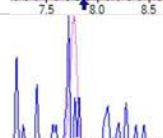
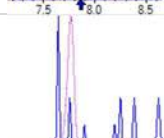
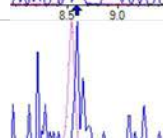
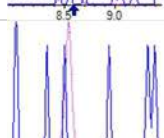
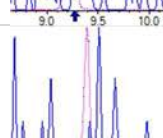
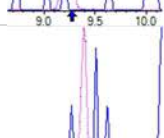
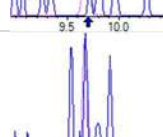
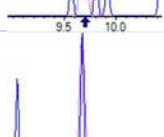
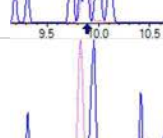
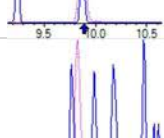
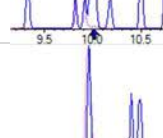
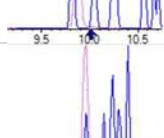
Lab Sample ID	Analyte	Found	Units	RL	C
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	PFPEA	0.00724	ng/mL	0.20	U
	PFHXA	0.00	ng/mL	0.10	U
	PFHPA	0.00	ng/mL	0.10	U
	PFOA	0.00	ng/mL	0.10	U
	PFNA	0.00	ng/mL	0.10	U
	PFDA	0.00	ng/mL	0.10	U
	PFUnA	0.00	ng/mL	0.10	U
	PFDOA	0.00	ng/mL	0.10	U
	PFTRDA	0.00	ng/mL	0.10	U
	PFTEDA	0.00	ng/mL	0.10	U
	PFBS	0.00	ng/mL	0.10	U
	PFPEs	0.00	ng/mL	0.10	U
	PFHXS	0.00	ng/mL	0.10	U
	PFHPS	0.00	ng/mL	0.10	U
	PFOS	0.00	ng/mL	0.10	U
	PFNS	0.00	ng/mL	0.10	U
	PFDS	0.00	ng/mL	0.10	U
	PFDOS	0.00	ng/mL	0.10	U
	4:2FTS	0.00	ng/mL	0.40	U
	6:2FTS	0.00	ng/mL	0.40	U
	8:2FTS	0.00	ng/mL	0.40	U
	PFOSA	0.00	ng/mL	0.10	U
	NMeFOSA	0.00	ng/mL	0.40	U
	NEtFOSA	0.00	ng/mL	0.40	U
	NMeFOSAA	0.00	ng/mL	0.10	U
	NEtFOSAA	0.00	ng/mL	0.10	U
	NMeFOSE	0.00	ng/mL	0.40	U
	NEtFOSE	0.00	ng/mL	0.40	U
	HFPO-DA	0.00	ng/mL	0.20	U
	ADONA	0.00	ng/mL	0.20	U
	PFEESA	0.00	ng/mL	0.20	U
	PFMPA	0.00	ng/mL	0.20	U

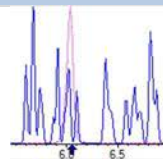
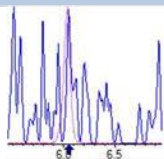
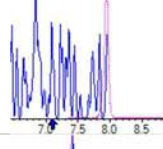
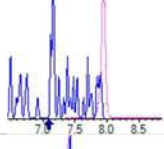
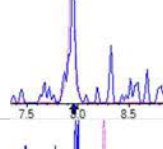
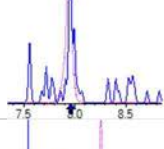
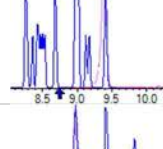
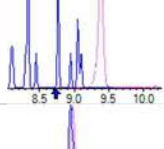
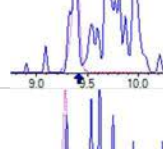
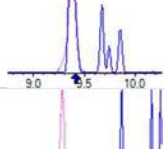
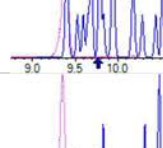
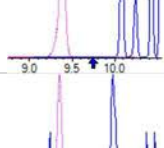
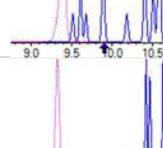
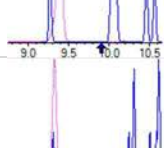
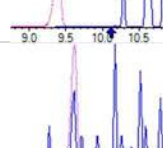
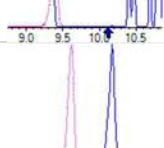
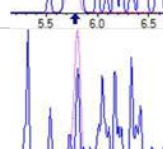
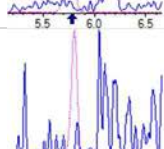
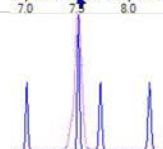
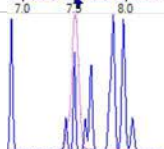
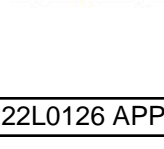
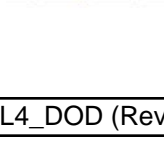
ANALYSIS SEQUENCE BLANKS

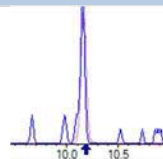
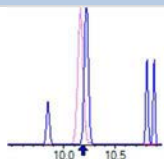
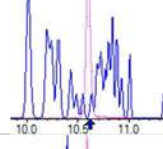
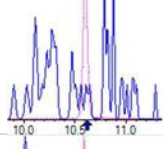
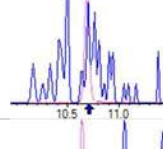
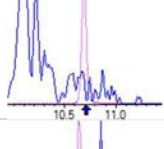
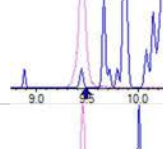
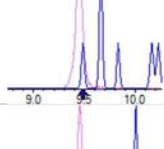
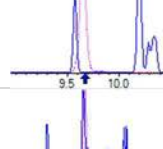
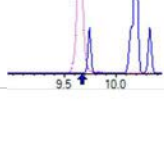
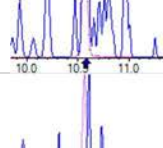
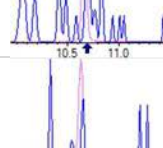
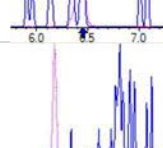
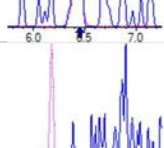
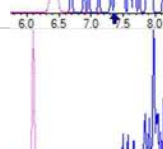
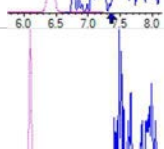
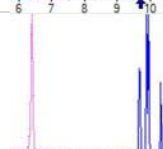
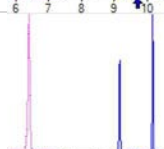
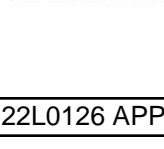
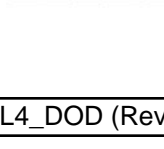
Laboratory: APPL, LLC
 Client: AECOM
 Sequence: SB04022
 Calibration: 2253011

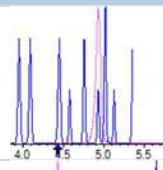
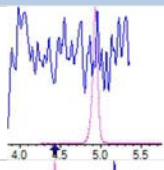
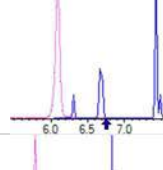
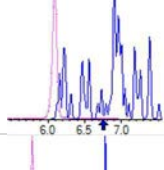
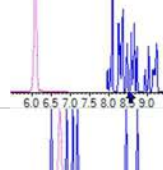
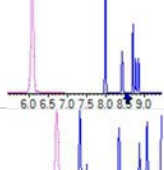
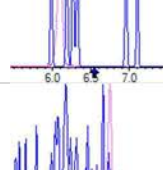
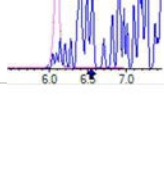
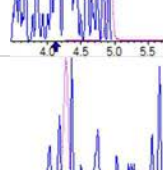
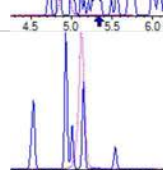
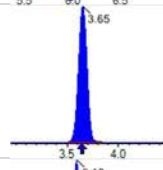

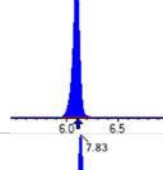
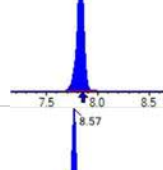
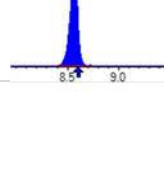
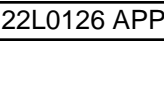
SDG:
 Project: Red Hill AFFF Assessment Sam
 Instrument: Saphira

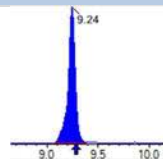
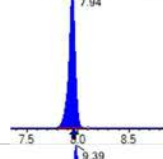
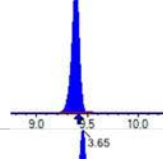
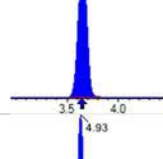
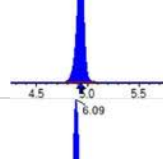
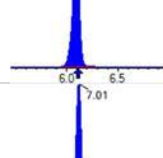
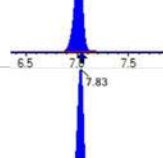
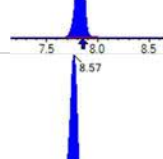
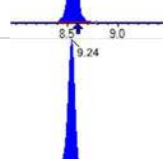
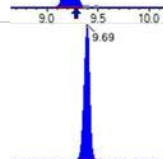

Lab Sample ID	Analyte	Found	Units	RL	C
SB04022-CCB1	PFMBA	0.00	ng/mL	0.20	U
	NFDHA	0.00	ng/mL	0.20	U
	9CL-PF3ONS	0.00	ng/mL	0.20	U
	11CL-PF3OUDS	0.00	ng/mL	0.20	U
	3:3FTCA	0.00	ng/mL	0.40	U
	5:3FTCA	0.00	ng/mL	0.40	U
	7:3FTCA	0.00	ng/mL	0.40	U
	13C4-PFBA	7.98	ng/mL		
	13C5-PFPEA	3.86	ng/mL		
	13C5-PFHXA	2.18	ng/mL		
	13C4-PFHPA	2.19	ng/mL		
	13C8-PFOA	1.93	ng/mL		
	13C9-PFNA	0.941	ng/mL		
	13C6-PFDA	0.934	ng/mL		
	13C7-PFUnA	1.05	ng/mL		
	13C2-PFDOA	1.10	ng/mL		
	13C2-PFTEDA	1.20	ng/mL		
	13C3-PFBS	1.94	ng/mL		
	13C3-PFHXS	1.89	ng/mL		
	13C8-PFOS	1.87	ng/mL		
	13C2-4:2FTS	4.62	ng/mL		
	13C2-6:2FTS	4.33	ng/mL		
	13C2-8:2FTS	3.65	ng/mL		
	13C8-PFOSA	2.39	ng/mL		
	D5-NETFOSA	2.24	ng/mL		
	D3-NMEFOSA	2.06	ng/mL		
	D3-NMEFOSAA	3.65	ng/mL		
	D5-NETFOSAA	4.90	ng/mL		
	D7-NMEFOSE	27.4	ng/mL		
	D9-NETFOSE	27.7	ng/mL		
	13C3-HFPO-DA	8.16	ng/mL		

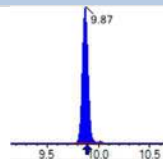
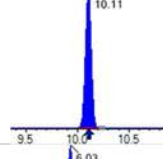
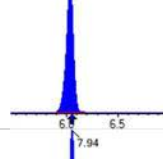
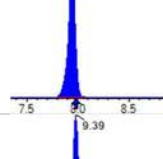
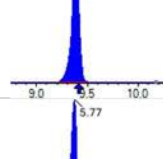
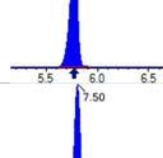
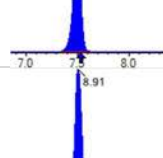
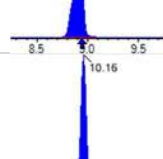
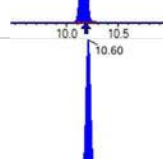
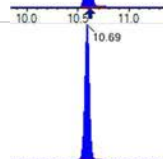
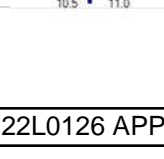
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(263.0 / 219.0) 1948 (263.0 / 69.0) 173	(4.92, 1.00) (-0.01, N/A, -0.4)	16.2 4.4	0.0888 859.3 829.8	0.0072	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

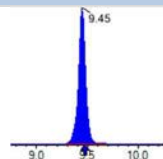
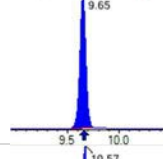
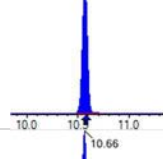
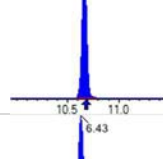
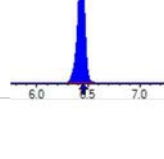
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (Δ RT-Imin, Δ RT-CVmin, Δ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) N/A (299.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	(349.0 / 80.0) N/A (349.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	(399.0 / 80.0) N/A (399.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) N/A (499.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(699.0 / 80.0) N/A (699.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) N/A (427.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(512.0 / 219.0) N/A (512.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSE	(630.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-PF3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(295.0 / 201.0) N/A (295.0 / 85.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 204605	(3.65, N/A) (N/A, 0.02, N/A)	567.1	N/A	0.9501 [1.0000]	95.0% { 101.2% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 388952	(6.10, N/A) (N/A, -0.01, N/A)	510.5	N/A	1.0246 [1.0000]	102.5% { 99.8% }			
13C4_PFOA_IIS	(417.0 / 372.0) 382902	(7.83, N/A) (N/A, -0.03, N/A)	525.9	N/A	1.0608 [1.0000]	106.1% { 99.8% }			
13C5_PFNA_IIS	(468.0 / 423.0) 307633	(8.57, N/A) (N/A, -0.03, N/A)	489.2	N/A	1.0461 [1.0000]	104.6% { 105.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 357338	(9.24, N/A) (N/A, -0.03, N/A)	351.5	N/A	1.0490 [1.0000]	104.9% {102.6%}			
18O2_PFHxS_IIS	(403.0 / 83.9) 645523	(7.94, N/A) (N/A, -0.02, N/A)	812.1	N/A	1.0668 [1.0000]	106.7% {102.0%}			
13C4_PFOS_IIS	(503.0 / 79.9) 669024	(9.39, N/A) (N/A, -0.02, N/A)	398.1	N/A	1.0376 [1.0000]	103.8% {105.2%}			
13C4_PFBA_EIS	(217.0 / 172.0) 1639104	(3.65, N/A) (N/A, 0.02, N/A)	738.2	N/A	7.9793 [8.0000]	99.7% {105.4%}			
13C5_PFPeA_EIS	(268.0 / 223.0) 1133488	(4.93, N/A) (N/A, 0.00, N/A)	585.5	N/A	3.8627 [4.0000]	96.6% {92.4%}			
13C5_PFHxA_EIS	(318.0 / 273.0) 865889	(6.09, N/A) (N/A, -0.01, N/A)	420.8	N/A	2.1755 [2.0000]	108.8% {107.6%}			
13C4_PFHpA_EIS	(367.0 / 322.0) 756523	(7.01, N/A) (N/A, -0.02, N/A)	402.9	N/A	2.1880 [2.0000]	109.4% {97.6%}			
13C8_PFOA_EIS	(421.0 / 376.0) 756011	(7.83, N/A) (N/A, -0.03, N/A)	567.9	N/A	1.9298 [2.0000]	96.5% {102.7%}			
13C9_PFNA_EIS	(472.0 / 427.0) 300784	(8.57, N/A) (N/A, -0.03, N/A)	363.9	N/A	0.9410 [1.0000]	94.1% {94.3%}			
13C6_PFDA_EIS	(519.0 / 474.0) 402980	(9.24, N/A) (N/A, -0.03, N/A)	331.8	N/A	0.9336 [1.0000]	93.4% {105.5%}			
13C7_PFUnA_EIS	(570.0 / 525.0) 555636	(9.69, N/A) (N/A, -0.02, N/A)	510.6	N/A	1.0467 [1.0000]	104.7% {102.4%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 584639	(9.87, N/A) (N/A, -0.01, N/A)	424.1	N/A	1.1037 [1.0000]	110.4% {101.1%}			
13C2_PFTeDA_EIS	(715.0 / 670.0) 403595	(10.11, N/A) (N/A, -0.01, N/A)	1260.3	N/A	1.2024 [1.0000]	120.2% {106.7%}			
13C3_PFBs_EIS	(302.0 / 80.0) 1890716	(6.03, N/A) (N/A, -0.01, N/A)	550.8	N/A	1.9353 [2.0000]	96.8% {96.2%}			
13C3_PFHxS_EIS	(402.0 / 80.0) 998935	(7.94, N/A) (N/A, -0.03, N/A)	792.2	N/A	1.8883 [2.0000]	94.4% {101.0%}			
13C8_PFOS_EIS	(507.0 / 80.0) 1508953	(9.39, N/A) (N/A, -0.02, N/A)	493.5	N/A	1.8716 [2.0000]	93.6% {98.3%}			
13C2_4:2FTS_EIS	(329.0 / 81.0) 510132	(5.77, N/A) (N/A, 0.00, N/A)	548.4	N/A	4.6217 [4.0000]	115.5% {102.5%}			
13C2_6:2FTS_EIS	(429.0 / 81.0) 631785	(7.50, N/A) (N/A, -0.03, N/A)	738.0	N/A	4.3260 [4.0000]	108.2% {108.5%}			
13C2_8:2FTS_EIS	(529.0 / 81.0) 671117	(8.91, N/A) (N/A, -0.02, N/A)	331.4	N/A	3.6455 [4.0000]	91.1% {107.7%}			
13C8_PFOsa_EIS	(506.0 / 78.0) 2252684	(10.16, N/A) (N/A, -0.02, N/A)	973.1	N/A	2.3939 [2.0000]	119.7% {118.4%}			
D3_NMeFOsa_EIS	(515.0 / 169.0) 366613	(10.60, N/A) (N/A, -0.02, N/A)	600.3	N/A	2.0602 [2.0000]	103.0% {98.7%}			
D5_NEtFOsa_EIS	(531.0 / 169.0) 365091	(10.69, N/A) (N/A, -0.02, N/A)	1103.4	N/A	2.2399 [2.0000]	112.0% {106.9%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 924888	(9.45, N/A) (N/A, -0.03, N/A)	316.2	N/A	3.6460 [4.0000]	91.1% {91.7%}			
D5_EtFOSAA_EIS	(589.0 / 419.0) 988534	(9.65, N/A) (N/A, -0.02, N/A)	82.0	N/A	4.9012 [4.0000]	122.5% {110.6%}			
D7_NMeFOSE_EIS	(623.0 / 58.9) 1066389	(10.57, N/A) (N/A, -0.01, N/A)	820.1	N/A	27.4287 [20.0000]	137.1% {107.2%}			
D9_NEtFOSE_EIS	(639.0 / 58.9) 496250	(10.66, N/A) (N/A, -0.01, N/A)	902.7	N/A	27.6801 [20.0000]	138.4% {105.6%}			
13C3_HFPODA_EIS	(287.0 / 169.0) 1816779	(6.43, N/A) (N/A, -0.01, N/A)	625.5	N/A	8.1595 [8.0000]	102.0% {103.9%}			

ANALYSIS SEQUENCE BLANKS

Laboratory: APPL, LLC
 Client: AECOM
 Sequence: SB04022
 Calibration: 2253011

SDG:
 Project: Red Hill AFFF Assessment Sam
 Instrument: Saphira

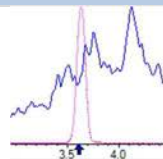
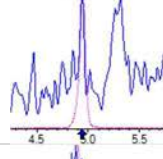
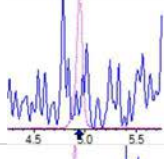
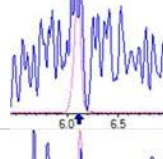
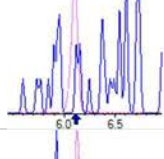
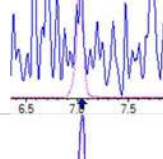
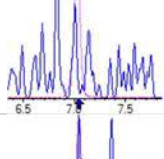
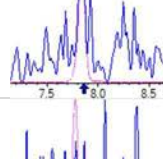
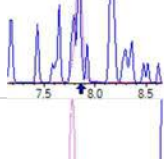
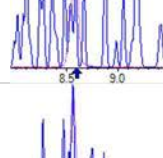
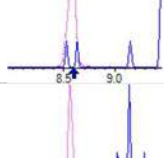
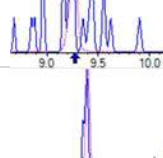
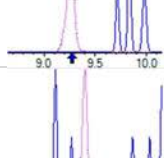
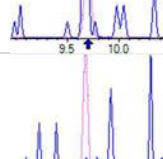
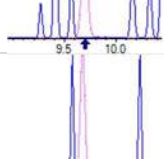
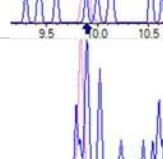
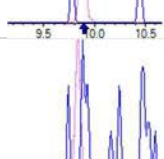
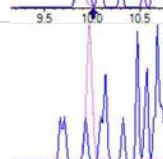
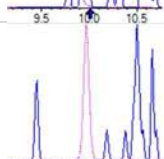
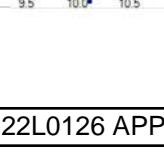
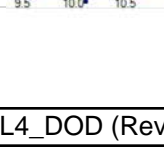
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	PFHXA	0.00	ng/mL	0.10	U
	PFHPA	0.00	ng/mL	0.10	U
	PFOA	0.00	ng/mL	0.10	U
	PFNA	0.00	ng/mL	0.10	U
	PFDA	0.00	ng/mL	0.10	U
	PFUnA	0.00	ng/mL	0.10	U
	PFDOA	0.00	ng/mL	0.10	U
	PFTRDA	0.00	ng/mL	0.10	U
	PFTEDA	0.00	ng/mL	0.10	U
	PFBS	0.00	ng/mL	0.10	U
	PFPEs	0.00	ng/mL	0.10	U
	PFHXS	0.00	ng/mL	0.10	U
	PFHPS	0.00	ng/mL	0.10	U
	PFOS	0.00	ng/mL	0.10	U
	PFNS	0.00	ng/mL	0.10	U
	PFDS	0.00	ng/mL	0.10	U
	PFDOS	0.00	ng/mL	0.10	U
	4:2FTS	0.00	ng/mL	0.40	U
	6:2FTS	0.00	ng/mL	0.40	U
	8:2FTS	0.00	ng/mL	0.40	U
	PFOSA	0.00	ng/mL	0.10	U
	NMeFOSA	0.00	ng/mL	0.40	U
	NEtFOSA	0.00	ng/mL	0.40	U
	NMeFOSAA	0.00	ng/mL	0.10	U
	NEtFOSAA	0.00	ng/mL	0.10	U
	NMeFOSE	0.00	ng/mL	0.40	U
	NEtFOSE	0.00	ng/mL	0.40	U
	HFPO-DA	0.00	ng/mL	0.20	U
	ADONA	0.00	ng/mL	0.20	U
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	PFMPA	0.00	ng/mL	0.20	U

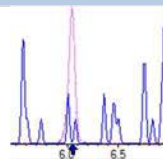
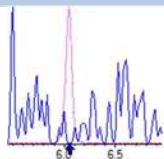
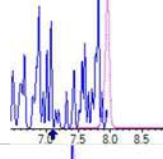
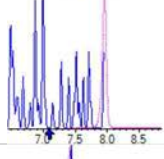
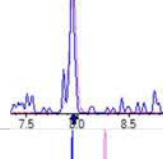
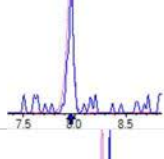
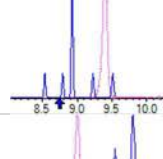
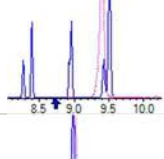
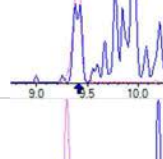
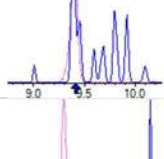
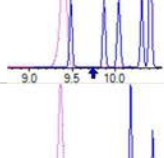
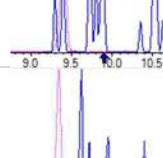
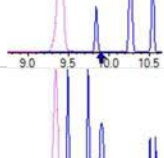
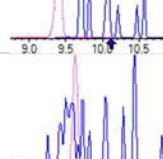
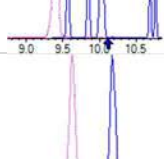
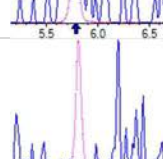
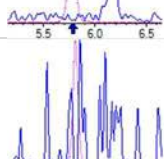
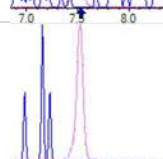
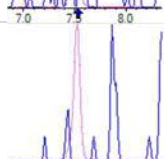

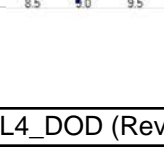
ANALYSIS SEQUENCE BLANKS

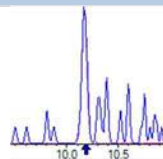
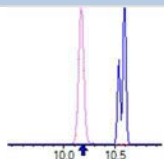
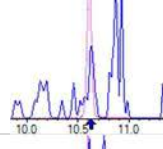
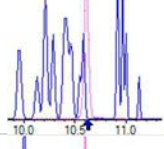
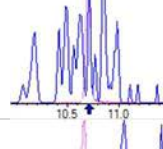
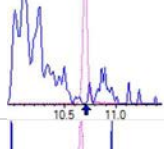
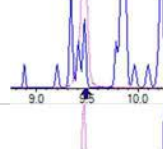
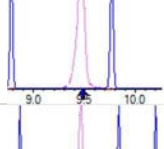
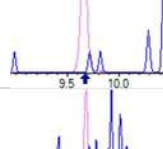
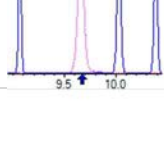
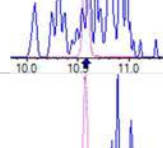
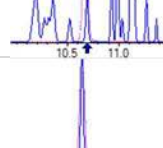
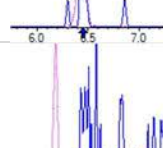
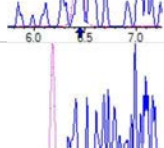
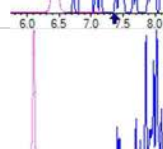
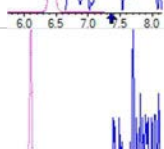
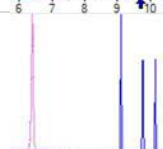
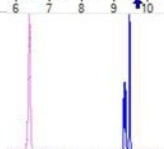
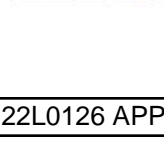
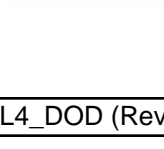
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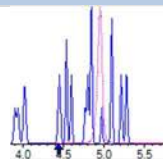
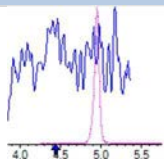
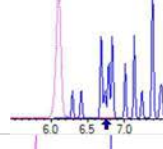
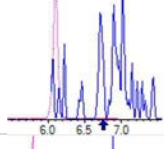
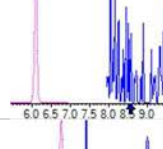
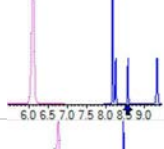
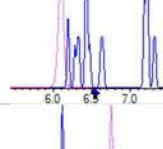
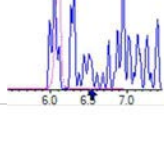
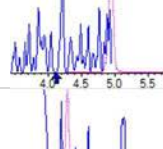
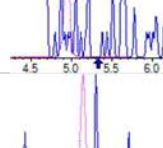
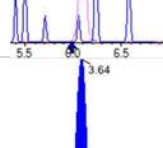
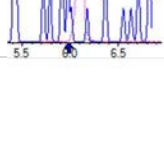
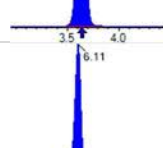
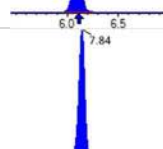
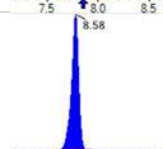
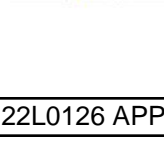
SDG:
 Project: Red Hill AFFF Assessment Sam
 Instrument: Saphira

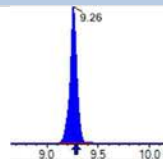
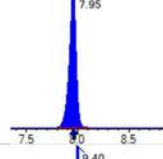
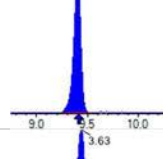
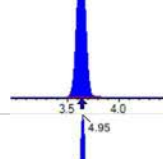
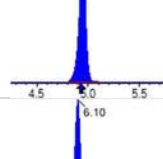
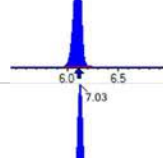
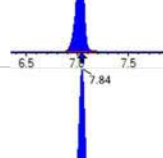
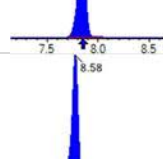
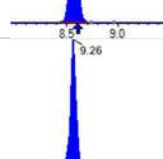
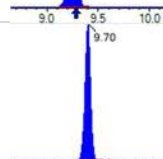

Lab Sample ID	Analyte	Found	Units	RL	C
SB04022-CCB2	PFMBA	0.00	ng/mL	0.20	U
	NFDHA	0.00	ng/mL	0.20	U
	9CL-PF3ONS	0.00	ng/mL	0.20	U
	11CL-PF3OUDS	0.00	ng/mL	0.20	U
	3:3FTCA	0.00	ng/mL	0.40	U
	5:3FTCA	0.00	ng/mL	0.40	U
	7:3FTCA	0.00	ng/mL	0.40	U
	13C4-PFBA	7.86	ng/mL		
	13C5-PFPEA	3.84	ng/mL		
	13C5-PFHXA	1.95	ng/mL		
	13C4-PFHPA	1.89	ng/mL		
	13C8-PFOA	2.10	ng/mL		
	13C9-PFNA	0.997	ng/mL		
	13C6-PFDA	1.01	ng/mL		
	13C7-PFUnA	1.13	ng/mL		
	13C2-PFDOA	1.09	ng/mL		
	13C2-PFTEDA	1.05	ng/mL		
	13C3-PFBS	2.14	ng/mL		
	13C3-PFHXS	1.93	ng/mL		
	13C8-PFOS	2.01	ng/mL		
	13C2-4:2FTS	5.41	ng/mL		
	13C2-6:2FTS	4.79	ng/mL		
	13C2-8:2FTS	3.76	ng/mL		
	13C8-PFOSA	2.39	ng/mL		
	D5-NETFOSA	2.15	ng/mL		
	D3-NMEFOSA	2.24	ng/mL		
	D3-NMEFOSAA	4.22	ng/mL		
	D5-NETFOSAA	4.89	ng/mL		
	D7-NMEFOSE	27.4	ng/mL		
	D9-NETFOSE	27.3	ng/mL		
	13C3-HFPO-DA	7.60	ng/mL		

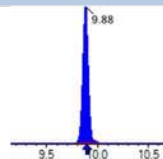
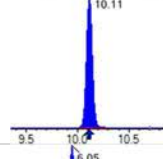
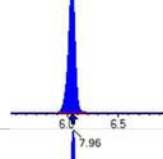
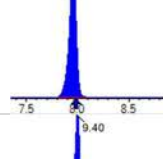
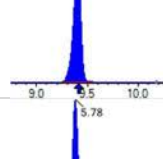
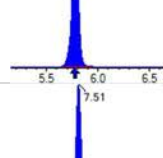
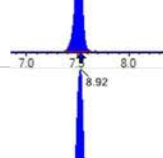
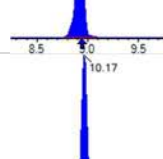
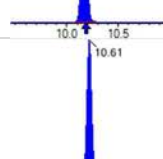
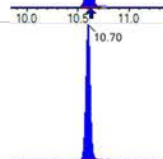
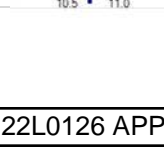
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(263.0 / 219.0) N/A (263.0 / 69.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

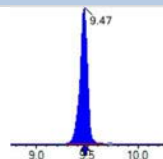
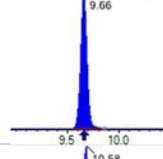
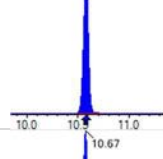
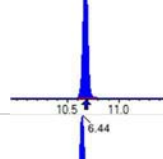
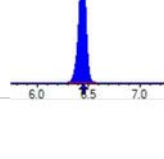
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) N/A (299.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	(349.0 / 80.0) N/A (349.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	(399.0 / 80.0) N/A (399.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) N/A (499.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(699.0 / 80.0) N/A (699.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) N/A (427.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(512.0 / 219.0) N/A (512.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSE	(630.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-PF3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(295.0 / 201.0) N/A (295.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 214127	(3.64 , N/A) (N/A , 0.00 , N/A)	577.4	N/A	0.9943 [1.0000]	99.4% { 105.9% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 424457	(6.11 , N/A) (N/A , 0.00 , N/A)	496.7	N/A	1.1181 [1.0000]	111.8% { 108.9% }			
13C4_PFOA_IIS	(417.0 / 372.0) 368578	(7.84 , N/A) (N/A , -0.02 , N/A)	485.5	N/A	1.0211 [1.0000]	102.1% { 96.1% }			
13C5_PFNA_IIS	(468.0 / 423.0) 337237	(8.58 , N/A) (N/A , -0.01 , N/A)	459.9	N/A	1.1468 [1.0000]	114.7% { 115.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 361244	(9.26 , N/A) (N/A , -0.01 , N/A)	353.9	N/A	1.0605 [1.0000]	106.0% { 103.7% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 646754	(7.95 , N/A) (N/A , -0.01 , N/A)	573.8	N/A	1.0689 [1.0000]	106.9% { 102.2% }			
13C4_PFOS_IIS	(503.0 / 79.9) 637351	(9.40 , N/A) (N/A , -0.01 , N/A)	482.6	N/A	0.9884 [1.0000]	98.8% { 100.3% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1690303	(3.63 , N/A) (N/A , 0.00 , N/A)	719.6	N/A	7.8626 [8.0000]	98.3% { 108.7% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1231020	(4.95 , N/A) (N/A , 0.01 , N/A)	530.6	N/A	3.8442 [4.0000]	96.1% { 100.3% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 849033	(6.10 , N/A) (N/A , 0.00 , N/A)	548.9	N/A	1.9547 [2.0000]	97.7% { 105.5% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 714745	(7.03 , N/A) (N/A , -0.01 , N/A)	456.2	N/A	1.8943 [2.0000]	94.7% { 92.2% }			
13C8_PFOA_EIS	(421.0 / 376.0) 790260	(7.84 , N/A) (N/A , -0.01 , N/A)	500.5	N/A	2.0956 [2.0000]	104.8% { 107.3% }			
13C9_PFNA_EIS	(472.0 / 427.0) 349305	(8.58 , N/A) (N/A , -0.01 , N/A)	430.0	N/A	0.9969 [1.0000]	99.7% { 109.6% }			
13C6_PFDA_EIS	(519.0 / 474.0) 442497	(9.26 , N/A) (N/A , -0.02 , N/A)	637.5	N/A	1.0141 [1.0000]	101.4% { 115.8% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 606379	(9.70 , N/A) (N/A , -0.01 , N/A)	433.3	N/A	1.1300 [1.0000]	113.0% { 111.8% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 582508	(9.88 , N/A) (N/A , 0.00 , N/A)	504.5	N/A	1.0878 [1.0000]	108.8% { 100.7% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 356753	(10.11 , N/A) (N/A , 0.00 , N/A)	1627.0	N/A	1.0514 [1.0000]	105.1% { 94.3% }			
13C3_PFBs_EIS	(302.0 / 80.0) 2092787	(6.05 , N/A) (N/A , 0.00 , N/A)	550.2	N/A	2.1380 [2.0000]	106.9% { 106.4% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1022505	(7.96 , N/A) (N/A , -0.01 , N/A)	910.5	N/A	1.9292 [2.0000]	96.5% { 103.4% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1543978	(9.40 , N/A) (N/A , -0.01 , N/A)	468.6	N/A	2.0102 [2.0000]	100.5% { 100.5% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 597926	(5.78 , N/A) (N/A , 0.01 , N/A)	505.8	N/A	5.4069 [4.0000]	135.2% { 120.2% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 701047	(7.51 , N/A) (N/A , -0.02 , N/A)	615.4	N/A	4.7912 [4.0000]	119.8% { 120.4% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 693620	(8.92 , N/A) (N/A , -0.01 , N/A)	395.9	N/A	3.7606 [4.0000]	94.0% { 111.3% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 2143868	(10.17 , N/A) (N/A , -0.01 , N/A)	753.9	N/A	2.3914 [2.0000]	119.6% { 112.6% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 379970	(10.61 , N/A) (N/A , -0.01 , N/A)	837.9	N/A	2.2414 [2.0000]	112.1% { 102.3% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 333858	(10.70 , N/A) (N/A , -0.01 , N/A)	1062.6	N/A	2.1501 [2.0000]	107.5% { 97.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 1019290	(9.47 , N/A) (N/A , -0.01 , N/A)	264.7	N/A	4.2178 [4.0000]	105.4% { 101.1% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 940497	(9.66 , N/A) (N/A , -0.01 , N/A)	126.0	N/A	4.8947 [4.0000]	122.4% { 105.2% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 1014000	(10.58 , N/A) (N/A , 0.00 , N/A)	713.2	N/A	27.3773 [20.0000]	136.9% { 101.9% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 466938	(10.67 , N/A) (N/A , -0.01 , N/A)	885.1	N/A	27.3394 [20.0000]	136.7% { 99.4% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1847211	(6.44 , N/A) (N/A , 0.00 , N/A)	646.2	N/A	7.6022 [8.0000]	95.0% { 105.7% }			

ANALYSIS SEQUENCE BLANKS

Laboratory: APPL, LLC
 Client: AECOM
 Sequence: SB04022
 Calibration: 2253011

SDG:
 Project: Red Hill AFFF Assessment Sam
 Instrument: Saphira

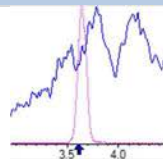
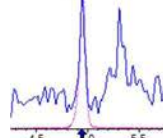
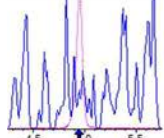
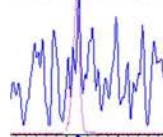
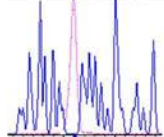
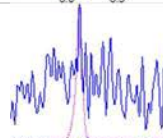

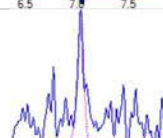
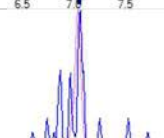
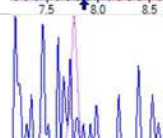
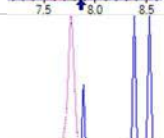
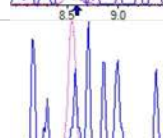
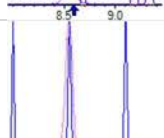
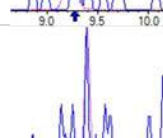
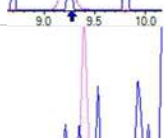
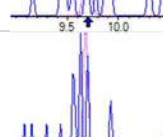
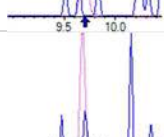
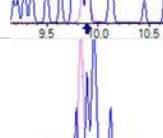
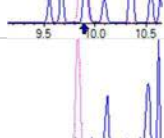
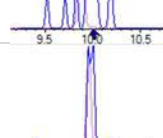
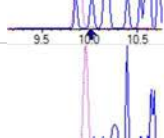
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	PFHXA	0.00	ng/mL	0.10	U
	PFHPA	0.00	ng/mL	0.10	U
	PFOA	0.00	ng/mL	0.10	U
	PFNA	0.00	ng/mL	0.10	U
	PFDA	0.00	ng/mL	0.10	U
	PFUnA	0.00	ng/mL	0.10	U
	PFDOA	0.00	ng/mL	0.10	U
	PFTRDA	0.00	ng/mL	0.10	U
	PFTEDA	0.00	ng/mL	0.10	U
	PFBS	0.00	ng/mL	0.10	U
	PFPEs	0.00	ng/mL	0.10	U
	PFHXS	0.00	ng/mL	0.10	U
	PFHPS	0.00	ng/mL	0.10	U
	PFOS	0.00	ng/mL	0.10	U
	PFNS	0.00	ng/mL	0.10	U
	PFDS	0.00	ng/mL	0.10	U
	PFDOS	0.00	ng/mL	0.10	U
	4:2FTS	0.00	ng/mL	0.40	U
	6:2FTS	0.00	ng/mL	0.40	U
	8:2FTS	0.00	ng/mL	0.40	U
	PFOSA	0.00	ng/mL	0.10	U
	NMeFOSA	0.00	ng/mL	0.40	U
	NEtFOSA	0.00	ng/mL	0.40	U
	NMeFOSAA	0.00	ng/mL	0.10	U
	NEtFOSAA	0.00	ng/mL	0.10	U
	NMeFOSE	0.00	ng/mL	0.40	U
	NEtFOSE	0.00	ng/mL	0.40	U
	HFPO-DA	0.00	ng/mL	0.20	U
	ADONA	0.00	ng/mL	0.20	U
	PFEESA	0.00	ng/mL	0.20	U
	PFMPA	0.00	ng/mL	0.20	U

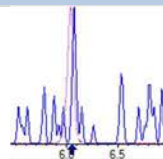
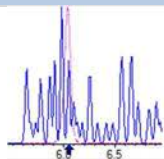
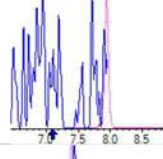
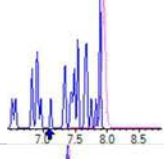
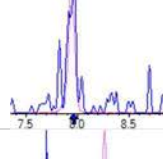
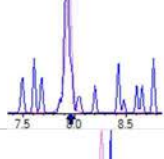
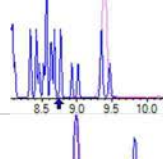
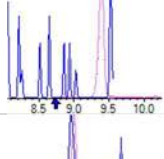
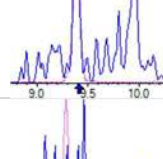
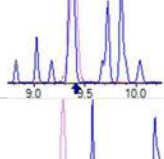
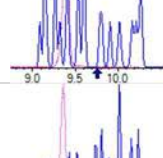
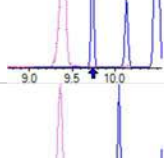
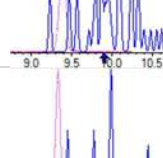
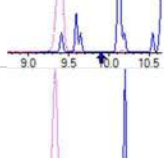
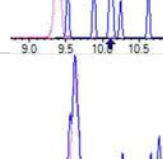
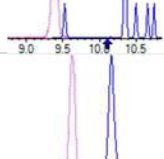
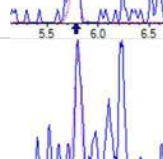
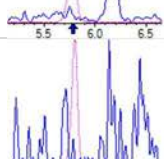
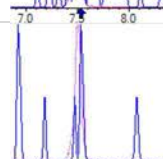
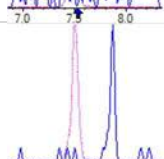

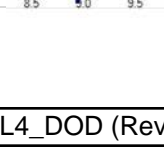
ANALYSIS SEQUENCE BLANKS

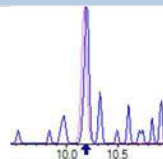
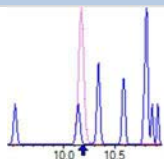
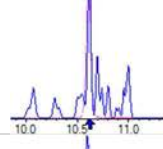
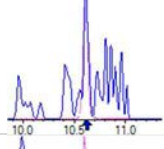
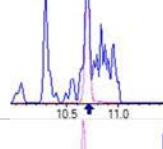
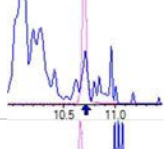
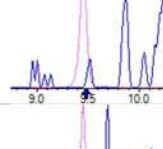
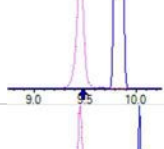
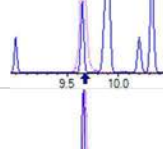
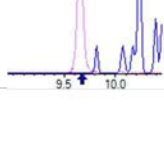
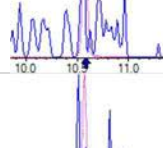
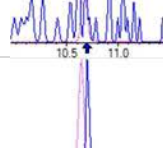
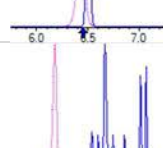
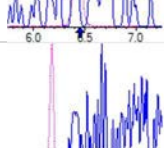
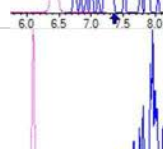
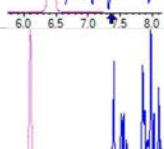
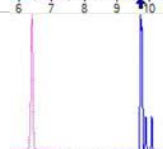
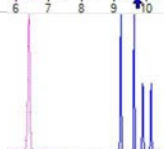
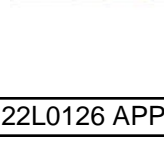
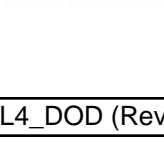
Laboratory: APPL, LLC
 Client: AECOM
 Sequence: SB04022
 Calibration: 2253011

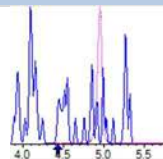
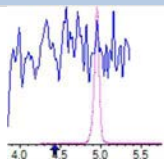
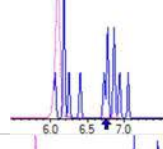
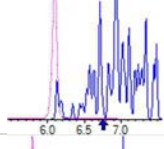
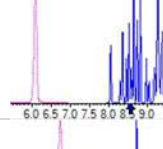
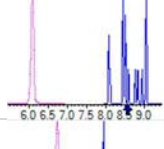
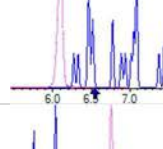
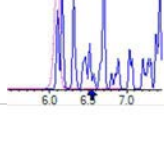
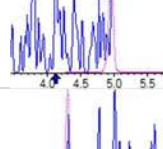
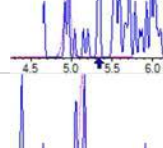
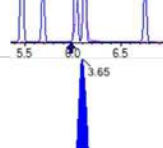
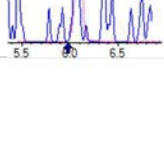
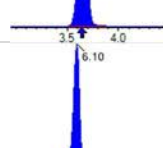
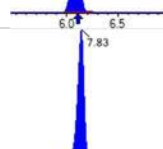
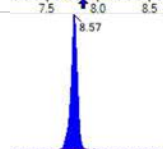
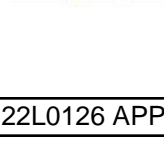
SDG:
 Project: Red Hill AFFF Assessment Sam
 Instrument: Saphira

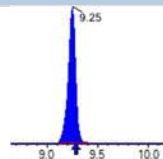
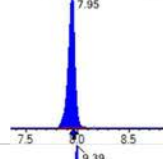
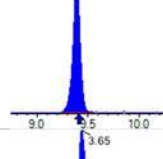
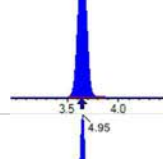
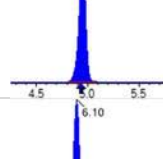
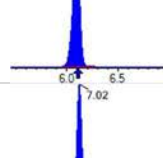
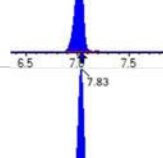
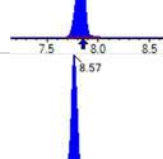
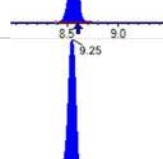
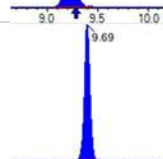

Lab Sample ID	Analyte	Found	Units	RL	C
SB04022-CCB3	PFMBA	0.00	ng/mL	0.20	U
	NFDHA	0.00	ng/mL	0.20	U
	9CL-PF3ONS	0.00	ng/mL	0.20	U
	11CL-PF3OUDS	0.00	ng/mL	0.20	U
	3:3FTCA	0.00	ng/mL	0.40	U
	5:3FTCA	0.00	ng/mL	0.40	U
	7:3FTCA	0.00	ng/mL	0.40	U
	13C4-PFBA	7.90	ng/mL		
	13C5-PFPEA	4.08	ng/mL		
	13C5-PFHXA	1.99	ng/mL		
	13C4-PFHPA	2.03	ng/mL		
	13C8-PFOA	2.06	ng/mL		
	13C9-PFNA	1.02	ng/mL		
	13C6-PFDA	0.880	ng/mL		
	13C7-PFUnA	0.972	ng/mL		
	13C2-PFDOA	0.903	ng/mL		
	13C2-PFTEDA	1.03	ng/mL		
	13C3-PFBS	2.14	ng/mL		
	13C3-PFHXS	2.00	ng/mL		
	13C8-PFOS	2.19	ng/mL		
	13C2-4:2FTS	5.11	ng/mL		
	13C2-6:2FTS	4.99	ng/mL		
	13C2-8:2FTS	3.87	ng/mL		
	13C8-PFOSA	2.40	ng/mL		
	D5-NETFOSA	2.34	ng/mL		
	D3-NMEFOSA	2.37	ng/mL		
	D3-NMEFOSAA	4.37	ng/mL		
	D5-NETFOSAA	4.78	ng/mL		
	D7-NMEFOSE	27.3	ng/mL		
	D9-NETFOSE	29.3	ng/mL		
	13C3-HFPO-DA	7.64	ng/mL		

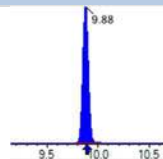
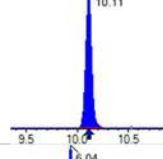
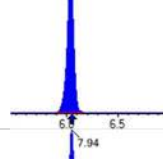
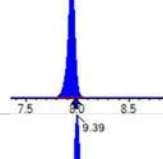
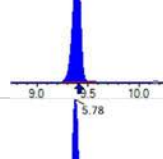
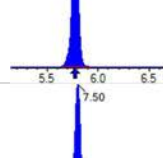
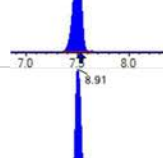
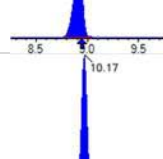
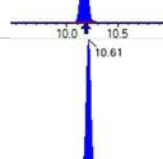
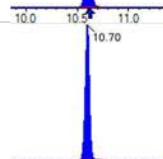
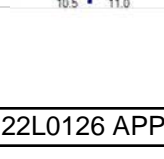
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(263.0 / 219.0) N/A (263.0 / 69.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDaA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

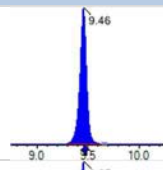


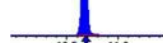

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) N/A (299.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	(349.0 / 80.0) N/A (349.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	(399.0 / 80.0) N/A (399.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) N/A (499.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(699.0 / 80.0) N/A (699.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) N/A (427.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(512.0 / 219.0) N/A (512.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSE	(630.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-PF3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(295.0 / 201.0) N/A (295.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 187762	(3.65 , N/A) (N/A , 0.01 , N/A)	630.0	N/A	0.8719 [1.0000]	87.2% { 92.9% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 385372	(6.10 , N/A) (N/A , 0.00 , N/A)	488.5	N/A	1.0152 [1.0000]	101.5% { 98.9% }			
13C4_PFOA_IIS	(417.0 / 372.0) 368900	(7.83 , N/A) (N/A , -0.02 , N/A)	430.1	N/A	1.0220 [1.0000]	102.2% { 96.2% }			
13C5_PFNA_IIS	(468.0 / 423.0) 288854	(8.57 , N/A) (N/A , -0.03 , N/A)	346.8	N/A	0.9823 [1.0000]	98.2% { 99.1% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 384544	(9.25, N/A) (N/A, -0.02, N/A)	428.5	N/A	1.1289 [1.0000]	112.9% { 110.4% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 617228	(7.95, N/A) (N/A, -0.02, N/A)	612.0	N/A	1.0201 [1.0000]	102.0% { 97.5% }			
13C4_PFOS_IIS	(503.0 / 79.9) 594165	(9.39, N/A) (N/A, -0.02, N/A)	386.9	N/A	0.9215 [1.0000]	92.1% { 93.5% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1489440	(3.65, N/A) (N/A, 0.01, N/A)	587.7	N/A	7.9011 [8.0000]	98.8% { 95.8% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1186729	(4.95, N/A) (N/A, 0.02, N/A)	545.1	N/A	4.0817 [4.0000]	102.0% { 96.7% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 784436	(6.10, N/A) (N/A, -0.01, N/A)	408.7	N/A	1.9892 [2.0000]	99.5% { 97.5% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 696606	(7.02, N/A) (N/A, -0.02, N/A)	504.1	N/A	2.0334 [2.0000]	101.7% { 89.9% }			
13C8_PFOA_EIS	(421.0 / 376.0) 776591	(7.83, N/A) (N/A, -0.02, N/A)	556.4	N/A	2.0575 [2.0000]	102.9% { 105.5% }			
13C9_PFNA_EIS	(472.0 / 427.0) 304989	(8.57, N/A) (N/A, -0.03, N/A)	433.1	N/A	1.0162 [1.0000]	101.6% { 95.7% }			
13C6_PFDA_EIS	(519.0 / 474.0) 408648	(9.25, N/A) (N/A, -0.03, N/A)	353.7	N/A	0.8798 [1.0000]	88.0% { 107.0% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 555532	(9.69, N/A) (N/A, -0.01, N/A)	396.5	N/A	0.9725 [1.0000]	97.2% { 102.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 514581	(9.88 , N/A) (N/A , -0.01 , N/A)	568.6	N/A	0.9027 [1.0000]	90.3% { 88.9% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 372302	(10.11 , N/A) (N/A , -0.01 , N/A)	925.1	N/A	1.0307 [1.0000]	103.1% { 98.4% }			
13C3_PFBs_EIS	(302.0 / 80.0) 2001078	(6.04 , N/A) (N/A , 0.00 , N/A)	662.2	N/A	2.1421 [2.0000]	107.1% { 101.8% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1012376	(7.94 , N/A) (N/A , -0.03 , N/A)	825.0	N/A	2.0015 [2.0000]	100.1% { 102.3% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1567030	(9.39 , N/A) (N/A , -0.02 , N/A)	366.2	N/A	2.1885 [2.0000]	109.4% { 102.0% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 539225	(5.78 , N/A) (N/A , 0.00 , N/A)	701.1	N/A	5.1093 [4.0000]	127.7% { 108.4% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 696342	(7.50 , N/A) (N/A , -0.03 , N/A)	647.4	N/A	4.9867 [4.0000]	124.7% { 119.6% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 680490	(8.91 , N/A) (N/A , -0.02 , N/A)	561.1	N/A	3.8659 [4.0000]	96.6% { 109.2% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 2003376	(10.17 , N/A) (N/A , -0.01 , N/A)	802.8	N/A	2.3972 [2.0000]	119.9% { 105.3% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 375164	(10.61 , N/A) (N/A , -0.01 , N/A)	772.3	N/A	2.3739 [2.0000]	118.7% { 101.0% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 339446	(10.70 , N/A) (N/A , -0.01 , N/A)	982.7	N/A	2.3450 [2.0000]	117.2% { 99.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 983818	(9.46 , N/A) (N/A , -0.02 , N/A)	433.5	N/A	4.3669 [4.0000]	109.2% { 97.6% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 856521	(9.65 , N/A) (N/A , -0.01 , N/A)	107.2	N/A	4.7817 [4.0000]	119.5% { 95.8% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 942110	(10.58 , N/A) (N/A , -0.01 , N/A)	1403.9	N/A	27.2851 [20.0000]	136.4% { 94.7% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 466137	(10.67 , N/A) (N/A , -0.01 , N/A)	1267.5	N/A	29.2762 [20.0000]	146.4% { 99.2% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1686392	(6.43 , N/A) (N/A , -0.01 , N/A)	630.8	N/A	7.6443 [8.0000]	95.6% { 96.5% }			

ANALYSIS SEQUENCE BLANKS

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 Client: AECOM
 Sequence: SB04022
 Calibration: 2253011

SDG:
 Project: Red Hill AFFF Assessment Sam
 Instrument: Saphira

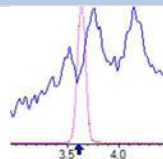
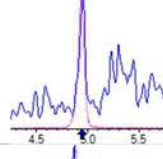
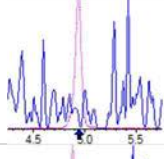
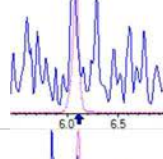
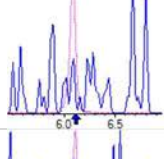
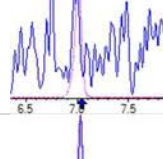
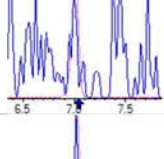
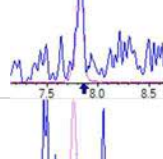
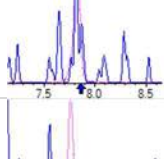
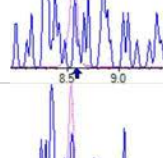
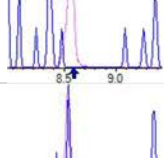
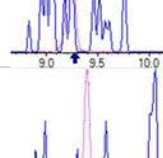
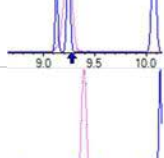
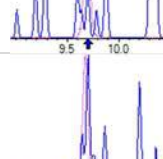
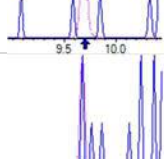
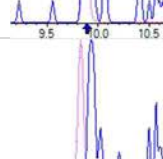
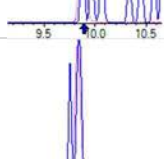
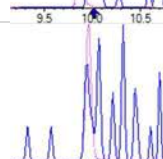
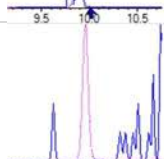
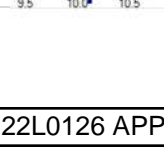
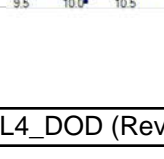
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	PFHXA	0.00	ng/mL	0.10	U
	PFHPA	0.00	ng/mL	0.10	U
	PFOA	0.00	ng/mL	0.10	U
	PFNA	0.00	ng/mL	0.10	U
	PFDA	0.00	ng/mL	0.10	U
	PFUnA	0.00	ng/mL	0.10	U
	PFDOA	0.00	ng/mL	0.10	U
	PFTRDA	0.00	ng/mL	0.10	U
	PFTEDA	0.00	ng/mL	0.10	U
	PFBS	0.00	ng/mL	0.10	U
	PFPEs	0.00	ng/mL	0.10	U
	PFHXS	0.00	ng/mL	0.10	U
	PFHPS	0.00	ng/mL	0.10	U
	PFOS	0.00	ng/mL	0.10	U
	PFNS	0.00	ng/mL	0.10	U
	PFDS	0.00	ng/mL	0.10	U
	PFDOS	0.00	ng/mL	0.10	U
	4:2FTS	0.00	ng/mL	0.40	U
	6:2FTS	0.00	ng/mL	0.40	U
	8:2FTS	0.00	ng/mL	0.40	U
	PFOSA	0.00	ng/mL	0.10	U
	NMeFOSA	0.00	ng/mL	0.40	U
	NEtFOSA	0.00	ng/mL	0.40	U
	NMeFOSAA	0.00	ng/mL	0.10	U
	NEtFOSAA	0.00	ng/mL	0.10	U
	NMeFOSE	0.00	ng/mL	0.40	U
	NEtFOSE	0.00	ng/mL	0.40	U
	HFPO-DA	0.00	ng/mL	0.20	U
	ADONA	0.00	ng/mL	0.20	U
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	PFMPA	0.00	ng/mL	0.20	U

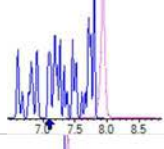
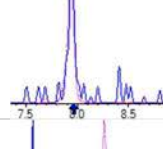
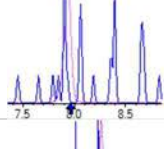
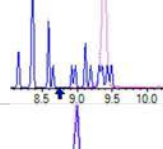
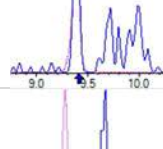
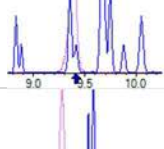
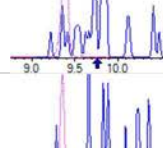
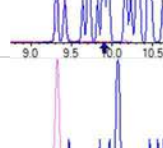
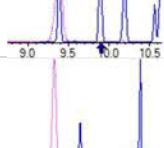
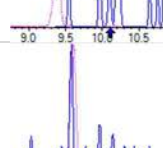
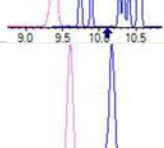
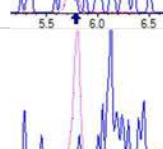
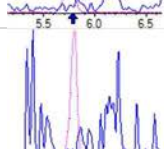
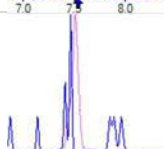
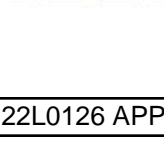
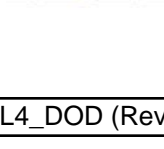
ANALYSIS SEQUENCE BLANKS

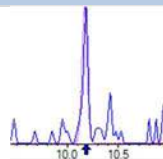
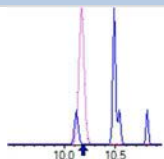
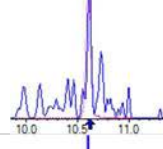
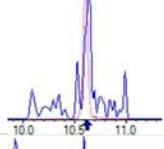
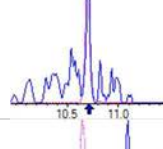
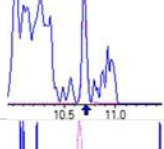
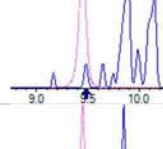
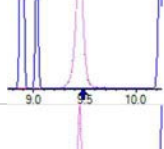
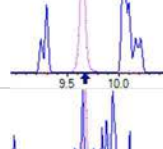
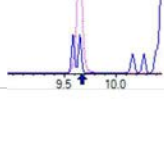
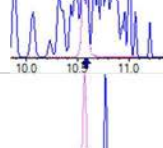
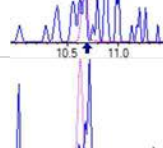
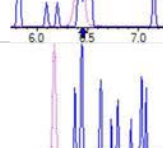
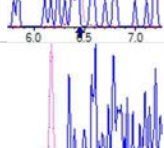
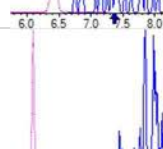
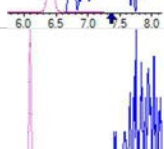
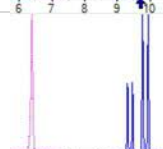
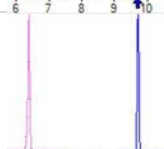
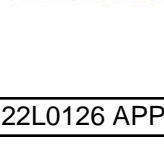
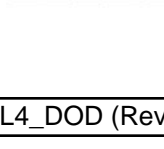
Laboratory: APPL, LLC
 Client: AECOM
 Sequence: SB04022
 Calibration: 2253011

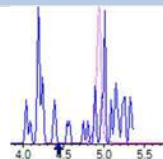
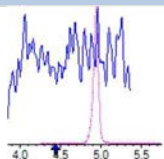
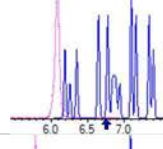
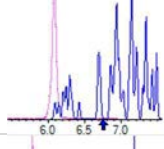
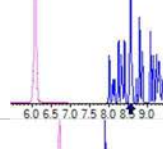
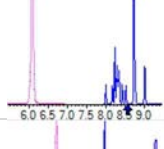
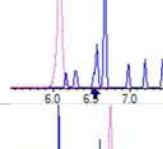
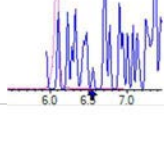
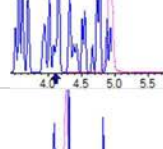
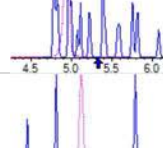
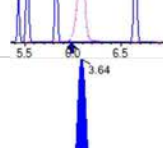
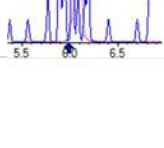
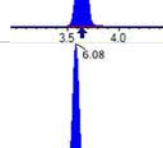
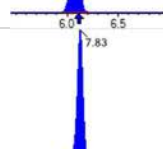
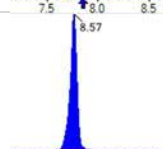
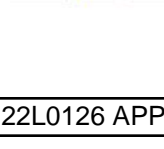
SDG:
 Project: Red Hill AFFF Assessment Sam
 Instrument: Saphira

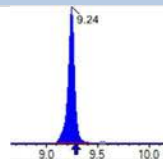
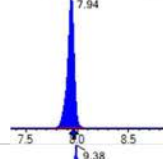
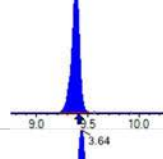
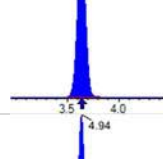
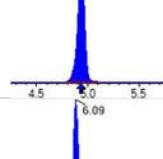
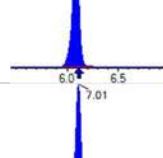
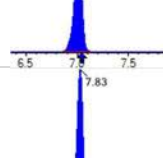
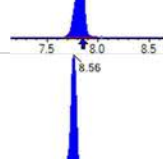
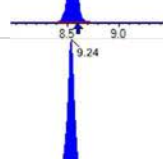
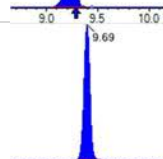

Lab Sample ID	Analyte	Found	Units	RL	C
SB04022-CCB4	PFMBA	0.00	ng/mL	0.20	U
	NFDHA	0.00	ng/mL	0.20	U
	9CL-PF3ONS	0.00	ng/mL	0.20	U
	11CL-PF3OUDS	0.00	ng/mL	0.20	U
	3:3FTCA	0.00	ng/mL	0.40	U
	5:3FTCA	0.00	ng/mL	0.40	U
	7:3FTCA	0.00	ng/mL	0.40	U
	13C4-PFBA	7.99	ng/mL		
	13C5-PFPEA	3.89	ng/mL		
	13C5-PFHXA	1.98	ng/mL		
	13C4-PFHPA	2.01	ng/mL		
	13C8-PFOA	1.95	ng/mL		
	13C9-PFNA	1.03	ng/mL		
	13C6-PFDA	1.17	ng/mL		
	13C7-PFUnA	1.17	ng/mL		
	13C2-PFDOA	1.33	ng/mL		
	13C2-PFTEDA	1.21	ng/mL		
	13C3-PFBS	2.10	ng/mL		
	13C3-PFHXS	1.92	ng/mL		
	13C8-PFOS	2.19	ng/mL		
	13C2-4:2FTS	5.05	ng/mL		
	13C2-6:2FTS	4.45	ng/mL		
	13C2-8:2FTS	3.74	ng/mL		
	13C8-PFOSA	2.34	ng/mL		
	D5-NETFOSA	2.50	ng/mL		
	D3-NMEFOSA	2.22	ng/mL		
	D3-NMEFOSAA	4.36	ng/mL		
	D5-NETFOSAA	6.07	ng/mL		
	D7-NMEFOSE	27.2	ng/mL		
	D9-NETFOSE	30.3	ng/mL		
	13C3-HFPO-DA	7.70	ng/mL		

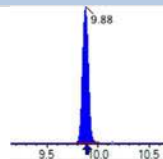
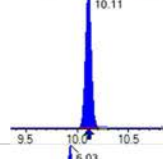
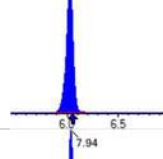
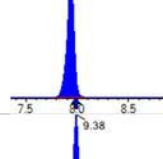
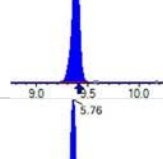
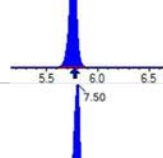
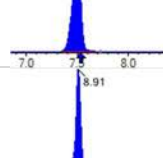
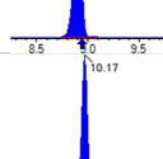
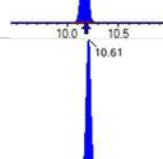
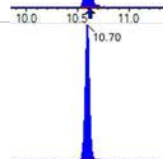
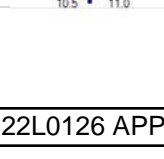
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(263.0 / 219.0) N/A (263.0 / 69.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDaA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

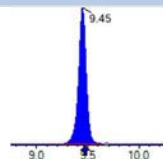
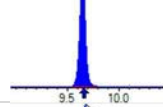
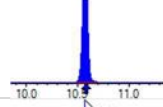
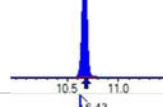
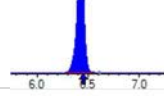
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) N/A (299.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	(349.0 / 80.0) N/A (349.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	(399.0 / 80.0) N/A (399.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) N/A (499.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(699.0 / 80.0) N/A (699.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) N/A (427.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(512.0 / 219.0) N/A (512.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSE	(630.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-PF3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(295.0 / 201.0) N/A (295.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 183940	(3.64 , N/A) (N/A , 0.01 , N/A)	674.0	N/A	0.8541 [1.0000]	85.4% { 91.0% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 374947	(6.08 , N/A) (N/A , -0.02 , N/A)	759.1	N/A	0.9877 [1.0000]	98.8% { 96.2% }			
13C4_PFOA_IIS	(417.0 / 372.0) 360546	(7.83 , N/A) (N/A , -0.03 , N/A)	652.3	N/A	0.9988 [1.0000]	99.9% { 94.0% }			
13C5_PFNA_IIS	(468.0 / 423.0) 280267	(8.57 , N/A) (N/A , -0.03 , N/A)	493.7	N/A	0.9531 [1.0000]	95.3% { 96.1% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 297555	(9.24 , N/A) (N/A , -0.03 , N/A)	374.7	N/A	0.8735 [1.0000]	87.3% { 85.4% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 573976	(7.94 , N/A) (N/A , -0.03 , N/A)	777.3	N/A	0.9486 [1.0000]	94.9% { 90.7% }			
13C4_PFOS_IIS	(503.0 / 79.9) 561419	(9.38 , N/A) (N/A , -0.03 , N/A)	427.8	N/A	0.8707 [1.0000]	87.1% { 88.3% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1474832	(3.64 , N/A) (N/A , 0.01 , N/A)	660.2	N/A	7.9862 [8.0000]	99.8% { 94.9% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1100775	(4.94 , N/A) (N/A , 0.00 , N/A)	647.2	N/A	3.8914 [4.0000]	97.3% { 89.7% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 761060	(6.09 , N/A) (N/A , -0.02 , N/A)	444.9	N/A	1.9836 [2.0000]	99.2% { 94.6% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 668967	(7.01 , N/A) (N/A , -0.03 , N/A)	685.2	N/A	2.0070 [2.0000]	100.4% { 86.3% }			
13C8_PFOA_EIS	(421.0 / 376.0) 719025	(7.83 , N/A) (N/A , -0.03 , N/A)	472.1	N/A	1.9492 [2.0000]	97.5% { 97.6% }			
13C9_PFNA_EIS	(472.0 / 427.0) 299757	(8.56 , N/A) (N/A , -0.03 , N/A)	394.4	N/A	1.0294 [1.0000]	102.9% { 94.0% }			
13C6_PFDA_EIS	(519.0 / 474.0) 421604	(9.24 , N/A) (N/A , -0.03 , N/A)	444.3	N/A	1.1730 [1.0000]	117.3% { 110.3% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 517562	(9.69 , N/A) (N/A , -0.01 , N/A)	477.8	N/A	1.1709 [1.0000]	117.1% { 95.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (Δ RT-[min], Δ RT- CV[min], Δ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 584467	(9.88 , N/A) (N/A , -0.01 , N/A)	481.1	N/A	1.3250 [1.0000]	132.5% { 101.0% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 337019	(10.11 , N/A) (N/A , -0.01 , N/A)	950.7	N/A	1.2058 [1.0000]	120.6% { 89.1% }			
13C3_PFBs_EIS	(302.0 / 80.0) 1824395	(6.03 , N/A) (N/A , -0.01 , N/A)	575.2	N/A	2.1002 [2.0000]	105.0% { 92.8% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 901253	(7.94 , N/A) (N/A , -0.03 , N/A)	686.1	N/A	1.9161 [2.0000]	95.8% { 91.1% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1479646	(9.38 , N/A) (N/A , -0.03 , N/A)	438.2	N/A	2.1870 [2.0000]	109.3% { 96.4% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 495854	(5.76 , N/A) (N/A , -0.01 , N/A)	758.8	N/A	5.0524 [4.0000]	126.3% { 99.7% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 577384	(7.50 , N/A) (N/A , -0.03 , N/A)	506.2	N/A	4.4463 [4.0000]	111.2% { 99.1% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 612183	(8.91 , N/A) (N/A , -0.03 , N/A)	447.6	N/A	3.7399 [4.0000]	93.5% { 98.2% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 1846680	(10.17 , N/A) (N/A , -0.01 , N/A)	952.2	N/A	2.3385 [2.0000]	116.9% { 97.0% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 331461	(10.61 , N/A) (N/A , -0.01 , N/A)	488.0	N/A	2.2197 [2.0000]	111.0% { 89.3% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 341656	(10.70 , N/A) (N/A , -0.01 , N/A)	1141.2	N/A	2.4979 [2.0000]	124.9% { 100.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 927219	(9.45 , N/A) (N/A , -0.03 , N/A)	359.7	N/A	4.3557 [4.0000]	108.9% { 92.0% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 1026843	(9.65 , N/A) (N/A , -0.02 , N/A)	135.4	N/A	6.0669 [4.0000]	151.7% { 114.9% }			S2,
D7_NMeFOSE_EIS	(623.0 / 58.9) 887480	(10.57 , N/A) (N/A , -0.01 , N/A)	1021.6	N/A	27.2022 [20.0000]	136.0% { 89.2% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 455116	(10.67 , N/A) (N/A , -0.01 , N/A)	1121.9	N/A	30.2513 [20.0000]	151.3% { 96.8% }			S2,
13C3_HFPODA_EIS	(287.0 / 169.0) 1653372	(6.43 , N/A) (N/A , -0.02 , N/A)	555.6	N/A	7.7030 [8.0000]	96.3% { 94.6% }			

ANALYSIS SEQUENCE BLANKS

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 Client: AECOM
 Sequence: SB04022
 Calibration: 2253011

SDG:
 Project: Red Hill AFFF Assessment Sam
 Instrument: Saphira

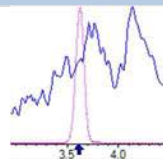
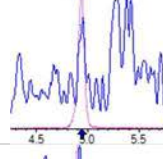
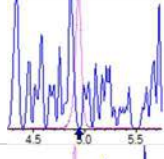
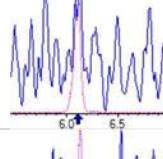
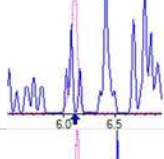
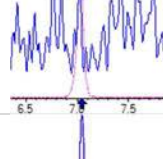
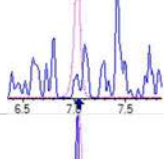
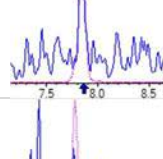
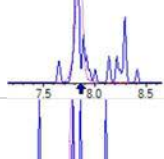
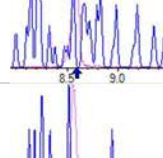
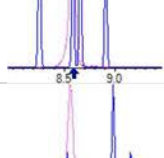
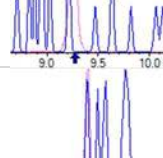
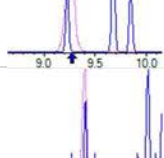
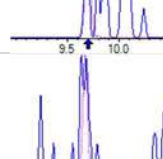
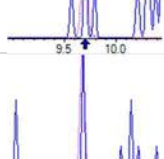
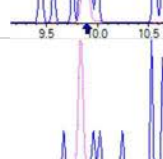
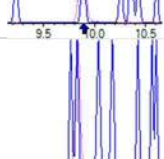
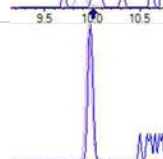
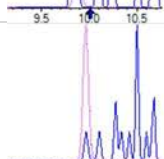
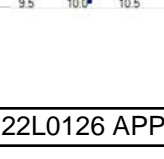
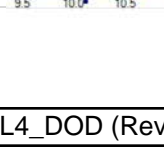
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	PFHXA	0.00	ng/mL	0.10	U
	PFHPA	0.00	ng/mL	0.10	U
	PFOA	0.00	ng/mL	0.10	U
	PFNA	0.00	ng/mL	0.10	U
	PFDA	0.00	ng/mL	0.10	U
	PFUnA	0.00	ng/mL	0.10	U
	PFDOA	0.00	ng/mL	0.10	U
	PFTRDA	0.00	ng/mL	0.10	U
	PFTEDA	0.00	ng/mL	0.10	U
	PFBS	0.00	ng/mL	0.10	U
	PFPEs	0.00	ng/mL	0.10	U
	PFHXS	0.00	ng/mL	0.10	U
	PFHPS	0.00	ng/mL	0.10	U
	PFOS	0.00	ng/mL	0.10	U
	PFNS	0.00	ng/mL	0.10	U
	PFDS	0.00	ng/mL	0.10	U
	PFDOS	0.00	ng/mL	0.10	U
	4:2FTS	0.00	ng/mL	0.40	U
	6:2FTS	0.00	ng/mL	0.40	U
	8:2FTS	0.00	ng/mL	0.40	U
	PFOSA	0.00	ng/mL	0.10	U
	NMeFOSA	0.00	ng/mL	0.40	U
	NEtFOSA	0.00	ng/mL	0.40	U
	NMeFOSAA	0.00	ng/mL	0.10	U
	NEtFOSAA	0.00	ng/mL	0.10	U
	NMeFOSE	0.00	ng/mL	0.40	U
	NEtFOSE	0.00	ng/mL	0.40	U
	HFPO-DA	0.00	ng/mL	0.20	U
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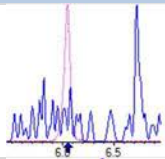
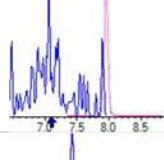
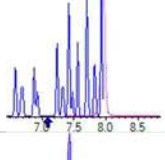
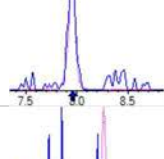
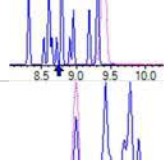
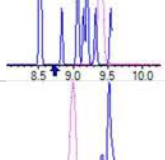
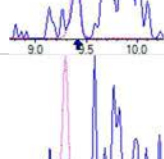
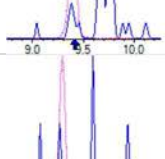
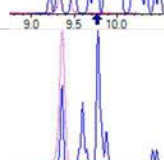
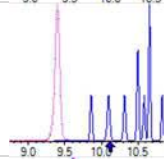
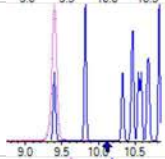
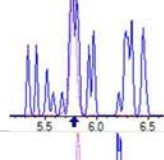
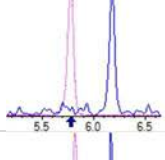
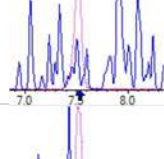
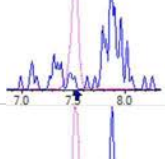
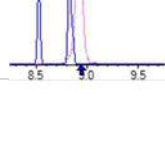
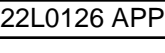
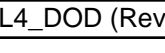
ANALYSIS SEQUENCE BLANKS

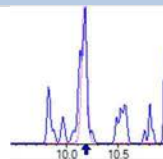
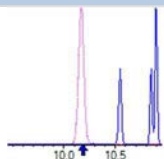
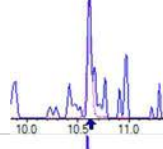
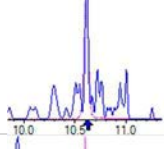
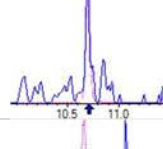
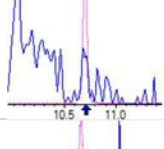
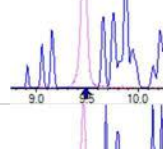
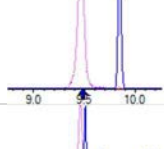
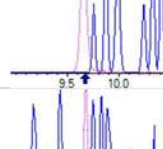
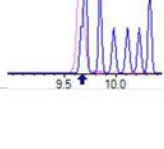
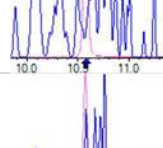
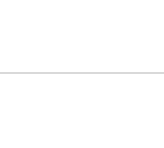
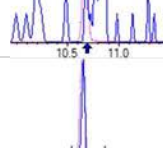

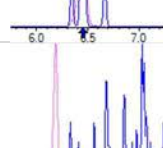
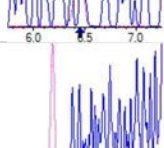
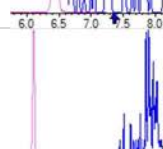
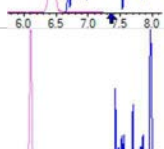
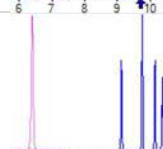
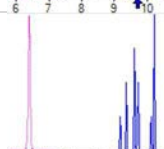
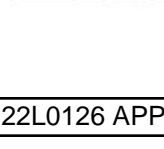
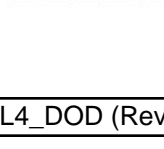
Laboratory: APPL, LLC
 Client: AECOM
 Sequence: SB04022
 Calibration: 2253011

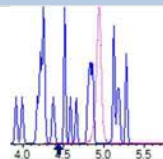
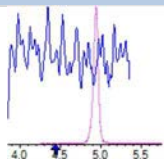
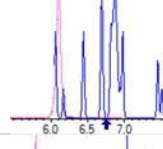
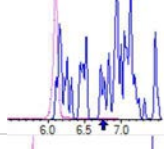
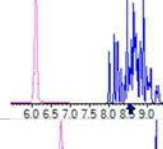
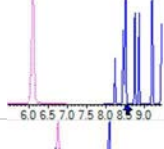
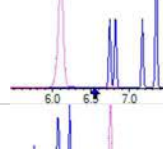
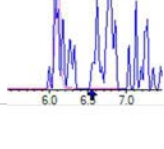
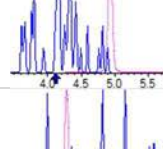
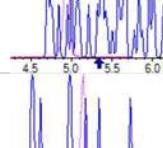
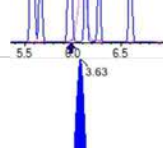
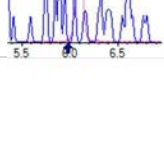
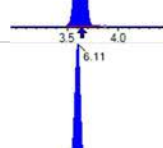
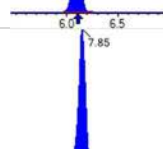
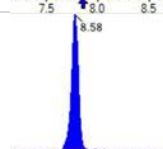
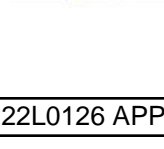
SDG:
 Project: Red Hill AFFF Assessment Sam
 Instrument: Saphira

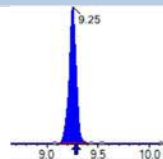
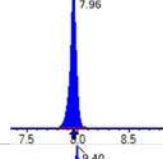
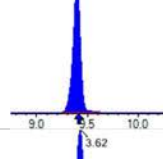
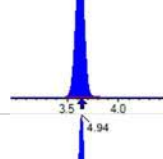
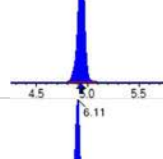
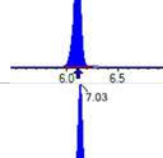
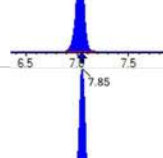
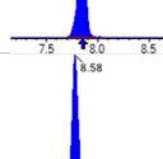
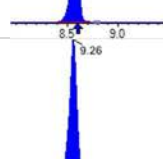
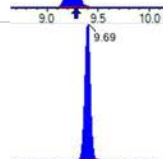

Lab Sample ID	Analyte	Found	Units	RL	C
SB04022-CCB5	PFMBA	0.00	ng/mL	0.20	U
	NFDHA	0.00	ng/mL	0.20	U
	9CL-PF3ONS	0.00	ng/mL	0.20	U
	11CL-PF3OUDS	0.00	ng/mL	0.20	U
	3:3FTCA	0.00	ng/mL	0.40	U
	5:3FTCA	0.00	ng/mL	0.40	U
	7:3FTCA	0.00	ng/mL	0.40	U
	13C4-PFBA	8.04	ng/mL		
	13C5-PFPEA	3.79	ng/mL		
	13C5-PFHXA	1.90	ng/mL		
	13C4-PFHPA	2.03	ng/mL		
	13C8-PFOA	1.90	ng/mL		
	13C9-PFNA	0.994	ng/mL		
	13C6-PFDA	1.04	ng/mL		
	13C7-PFUnA	1.11	ng/mL		
	13C2-PFDOA	1.10	ng/mL		
	13C2-PFTEDA	1.37	ng/mL		
	13C3-PFBS	2.02	ng/mL		
	13C3-PFHXS	1.83	ng/mL		
	13C8-PFOS	2.03	ng/mL		
	13C2-4:2FTS	5.24	ng/mL		
	13C2-6:2FTS	4.42	ng/mL		
	13C2-8:2FTS	3.77	ng/mL		
	13C8-PFOSA	2.37	ng/mL		
	D5-NETFOSA	2.49	ng/mL		
	D3-NMEFOSA	2.25	ng/mL		
	D3-NMEFOSAA	4.84	ng/mL		
	D5-NETFOSAA	4.79	ng/mL		
	D7-NMEFOSE	26.4	ng/mL		
	D9-NETFOSE	29.3	ng/mL		
	13C3-HFPO-DA	7.53	ng/mL		

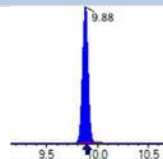
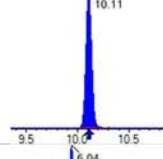
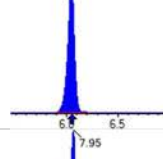
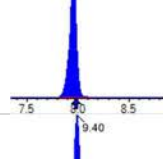
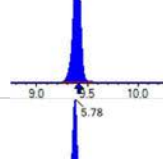
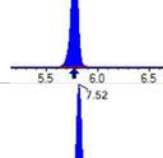
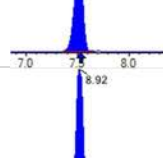
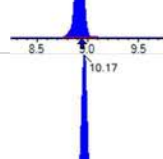
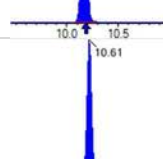
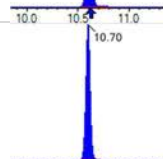
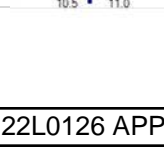
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(263.0 / 219.0) N/A (263.0 / 69.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDaA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

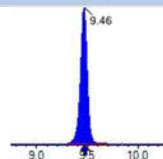
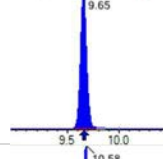
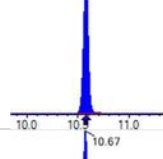
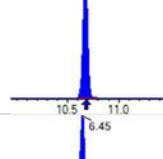
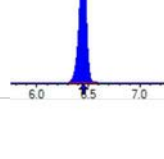
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) N/A (299.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	(349.0 / 80.0) N/A (349.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	(399.0 / 80.0) N/A (399.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) N/A (499.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(699.0 / 80.0) N/A (699.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) N/A (427.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(512.0 / 219.0) N/A (512.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSE	(630.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9Cl-PF3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11Cl-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(295.0 / 201.0) N/A (295.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 185738	(3.63 , N/A) (N/A , -0.01 , N/A)	594.4	N/A	0.8625 [1.0000]	86.2% { 91.9% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 384179	(6.11 , N/A) (N/A , 0.00 , N/A)	389.9	N/A	1.0120 [1.0000]	101.2% { 98.6% }			
13C4_PFOA_IIS	(417.0 / 372.0) 371551	(7.85 , N/A) (N/A , -0.01 , N/A)	466.0	N/A	1.0293 [1.0000]	102.9% { 96.9% }			
13C5_PFNA_IIS	(468.0 / 423.0) 301078	(8.58 , N/A) (N/A , -0.02 , N/A)	482.2	N/A	1.0239 [1.0000]	102.4% { 103.3% }			

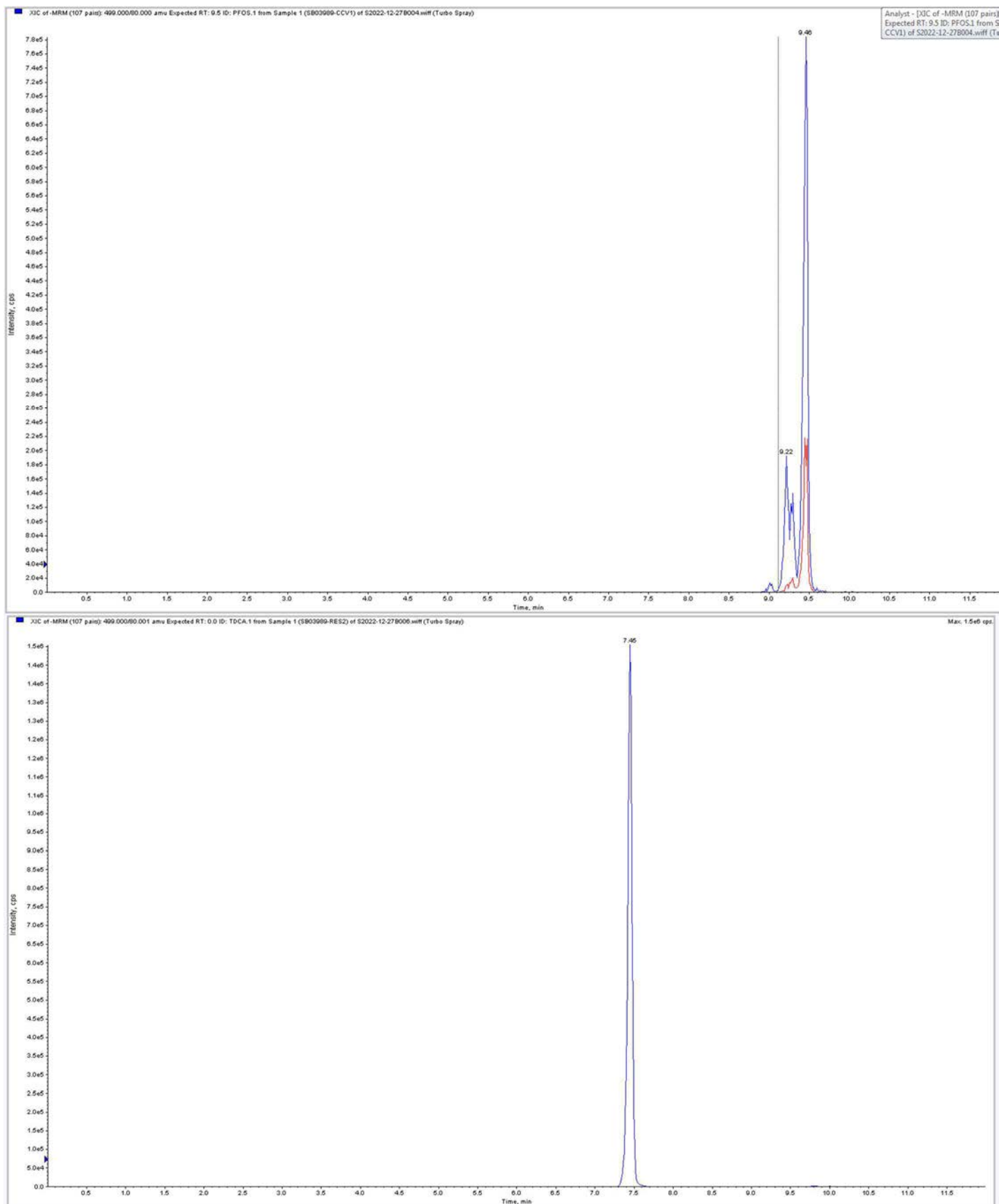
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 343855	(9.25, N/A) (N/A, -0.02, N/A)	316.9	N/A	1.0094 [1.0000]	100.9% { 98.7% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 599173	(7.96, N/A) (N/A, -0.01, N/A)	791.2	N/A	0.9902 [1.0000]	99.0% { 94.6% }			
13C4_PFOS_IIS	(503.0 / 79.9) 617227	(9.40, N/A) (N/A, -0.01, N/A)	278.6	N/A	0.9572 [1.0000]	95.7% { 97.1% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1499257	(3.62, N/A) (N/A, -0.01, N/A)	732.8	N/A	8.0399 [8.0000]	100.5% { 96.4% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1097444	(4.94, N/A) (N/A, 0.01, N/A)	601.7	N/A	3.7864 [4.0000]	94.7% { 89.5% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 745363	(6.11, N/A) (N/A, 0.00, N/A)	462.8	N/A	1.8960 [2.0000]	94.8% { 92.6% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 694226	(7.03, N/A) (N/A, -0.01, N/A)	529.1	N/A	2.0328 [2.0000]	101.6% { 89.6% }			
13C8_PFOA_EIS	(421.0 / 376.0) 723540	(7.85, N/A) (N/A, -0.01, N/A)	529.8	N/A	1.9033 [2.0000]	95.2% { 98.2% }			
13C9_PFNA_EIS	(472.0 / 427.0) 311096	(8.58, N/A) (N/A, -0.02, N/A)	435.6	N/A	0.9944 [1.0000]	99.4% { 97.6% }			
13C6_PFDA_EIS	(519.0 / 474.0) 430876	(9.26, N/A) (N/A, -0.02, N/A)	476.3	N/A	1.0374 [1.0000]	103.7% { 112.8% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 569200	(9.69, N/A) (N/A, -0.01, N/A)	544.2	N/A	1.1143 [1.0000]	111.4% { 104.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 561814	(9.88 , N/A) (N/A , -0.01 , N/A)	395.9	N/A	1.1022 [1.0000]	110.2% { 97.1% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 442086	(10.11 , N/A) (N/A , -0.01 , N/A)	891.9	N/A	1.3688 [1.0000]	136.9% { 116.9% }			
13C3_PFBs_EIS	(302.0 / 80.0) 1835079	(6.04 , N/A) (N/A , 0.00 , N/A)	538.1	N/A	2.0236 [2.0000]	101.2% { 93.3% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 898044	(7.95 , N/A) (N/A , -0.02 , N/A)	654.1	N/A	1.8289 [2.0000]	91.4% { 90.8% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1512497	(9.40 , N/A) (N/A , -0.01 , N/A)	489.5	N/A	2.0334 [2.0000]	101.7% { 98.5% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 537096	(5.78 , N/A) (N/A , 0.00 , N/A)	847.1	N/A	5.2425 [4.0000]	131.1% { 107.9% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 598693	(7.52 , N/A) (N/A , -0.01 , N/A)	610.3	N/A	4.4166 [4.0000]	110.4% { 102.8% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 644982	(8.92 , N/A) (N/A , -0.01 , N/A)	435.3	N/A	3.7746 [4.0000]	94.4% { 103.5% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 2058109	(10.17 , N/A) (N/A , -0.01 , N/A)	770.7	N/A	2.3706 [2.0000]	118.5% { 108.1% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 369200	(10.61 , N/A) (N/A , -0.01 , N/A)	757.7	N/A	2.2488 [2.0000]	112.4% { 99.4% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 374664	(10.70 , N/A) (N/A , -0.01 , N/A)	916.0	N/A	2.4916 [2.0000]	124.6% { 109.7% }			

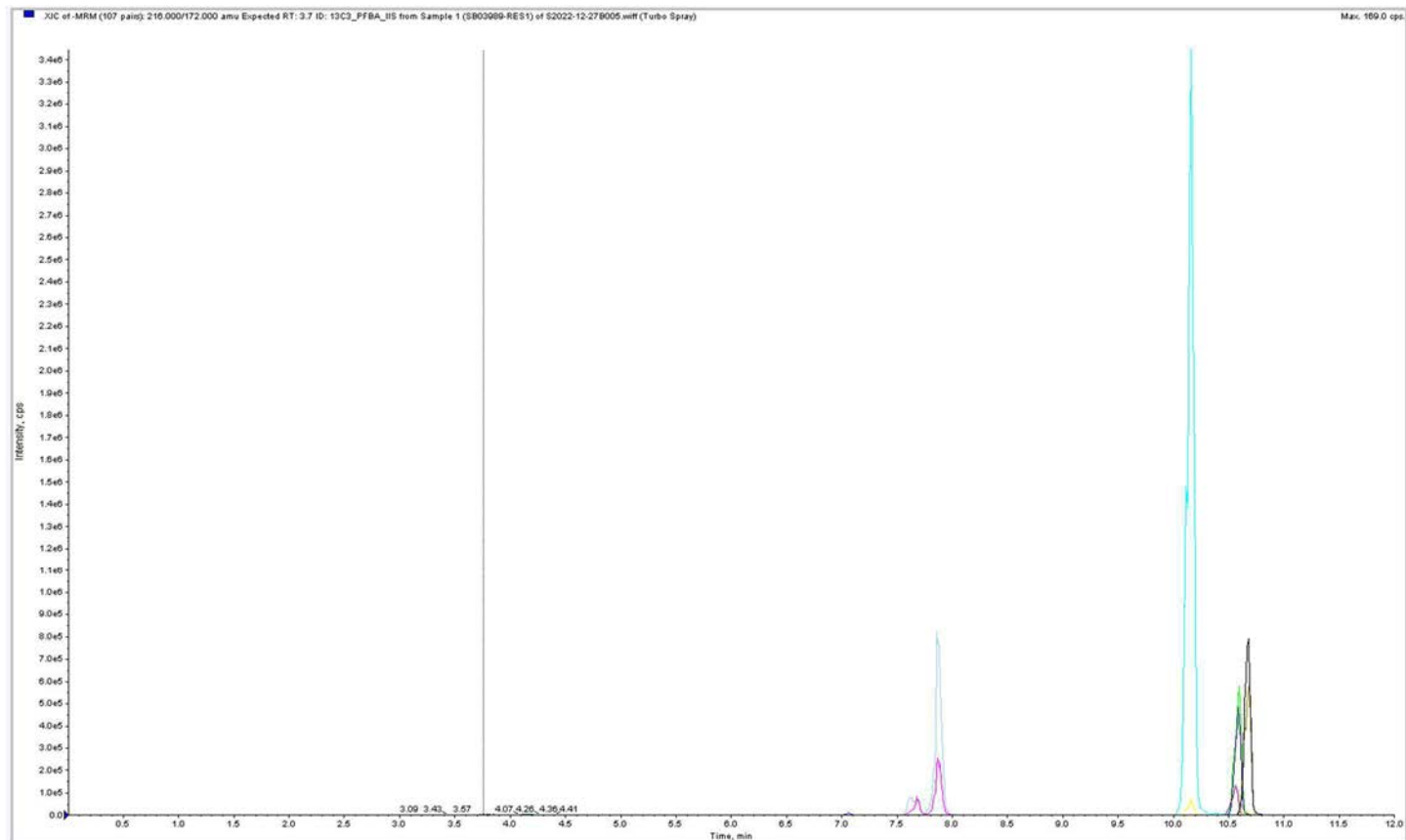
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 1132584	(9.46 , N/A) (N/A , -0.01 , N/A)	371.6	N/A	4.8394 [4.0000]	121.0% { 112.3% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 890530	(9.65 , N/A) (N/A , -0.01 , N/A)	129.0	N/A	4.7858 [4.0000]	119.6% { 99.6% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 946989	(10.58 , N/A) (N/A , 0.00 , N/A)	802.6	N/A	26.4017 [20.0000]	132.0% { 95.2% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 484392	(10.67 , N/A) (N/A , -0.01 , N/A)	1148.3	N/A	29.2861 [20.0000]	146.4% { 103.1% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1655512	(6.45 , N/A) (N/A , 0.00 , N/A)	769.6	N/A	7.5276 [8.0000]	94.1% { 94.7% }			

BILE STANDARD CHECK S2022-12-27B/SB03989

TDCA = 7.45
PFOS = 9.00
TDCA-PFOS = 1.55 > 1.0 PASS



S2022-12-27B/SB03989 Column Resolution



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QUALITY CONTROL RAW DATA

ANALYSIS DATA SHEET

Blank

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Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	BBL0470-BLK1
		File ID:	S2022-12-30A (17)
Sampled:		Prepared:	12/27/22 11:43
		Analyzed:	12/30/22 19:43
Solids:		Preparation:	EPA 1633
		Dilution:	1
Batch:	BBL0470	Sequence:	SB04022
		Calibration:	2253011
Column:	1	Instrument:	Saphira

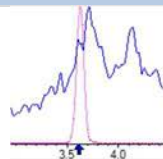
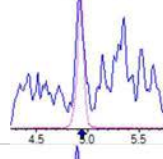
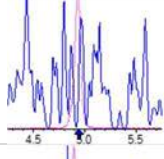
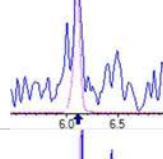
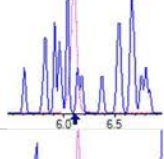
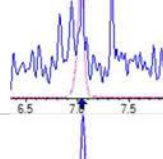
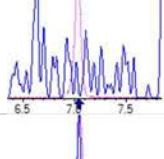
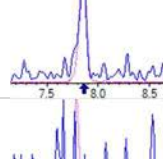
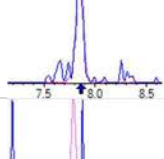
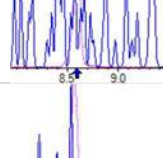
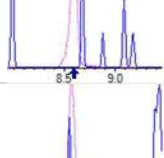
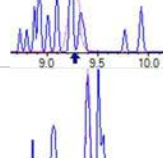
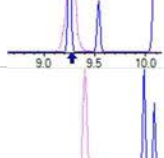
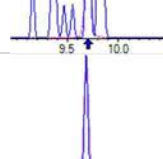
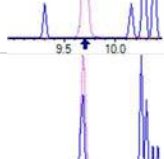
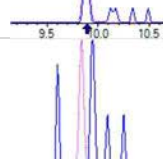
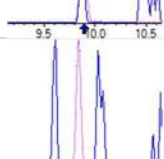
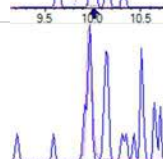
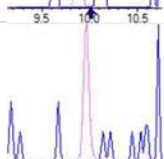
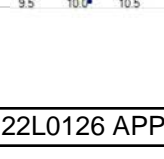
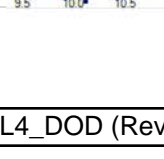
COMPOUND	CONC. (ug/kg Dry)	LOQ	LOD	DL	Q
PFBA	0.20 U	0.30	0.20	0.15	U
PFPEA	0.040 U	0.080	0.040	0.022	U
PFHXA	0.020 U	0.040	0.020	0.015	U
PFHPA	0.020 U	0.040	0.020	0.015	U
PFOA	0.030 U	0.040	0.030	0.021	U
PFNA	0.030 U	0.040	0.030	0.022	U
PFDA	0.030 U	0.040	0.030	0.022	U
PFUnA	0.020 U	0.040	0.020	0.020	U
PFDOA	0.030 U	0.040	0.030	0.023	U
PFTRDA	0.020 U	0.040	0.020	0.016	U
PFTEDA	0.030 U	0.040	0.030	0.025	U
PFBS	0.020 U	0.040	0.020	0.016	U
PFPEs	0.020 U	0.040	0.020	0.012	U
PFHXS	0.020 U	0.040	0.020	0.015	U
PFHPS	0.020 U	0.040	0.020	0.011	U
PFOS	0.020 U	0.040	0.020	0.0097	U
PFNS	0.020 U	0.040	0.020	0.015	U
PFDS	0.020 U	0.040	0.020	0.014	U
PFDOS	0.020 U	0.040	0.020	0.013	U
4:2FTS	0.080 U	0.16	0.080	0.045	U
6:2FTS	0.080 U	0.16	0.080	0.061	U
8:2FTS	0.080 U	0.16	0.080	0.051	U
PFOSA	0.020 U	0.040	0.020	0.012	U
NMeFOSA	0.080 U	0.16	0.080	0.066	U
NEtFOSA	0.080 U	0.16	0.080	0.027	U
NMeFOSAA	0.020 U	0.040	0.020	0.010	U
NEtFOSAA	0.020 U	0.040	0.020	0.018	U
NMeFOSE	0.080 U	0.16	0.080	0.054	U
NEtFOSE	0.080 U	0.16	0.080	0.047	U
HFPO-DA	0.040 U	0.080	0.040	0.022	U

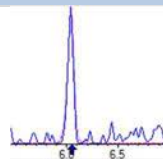
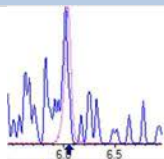
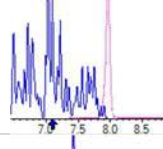
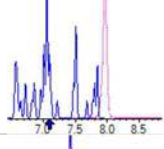
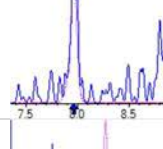
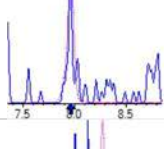
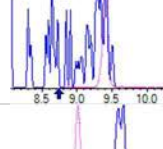
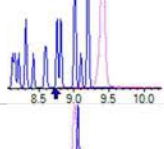
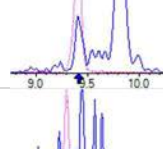
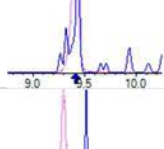
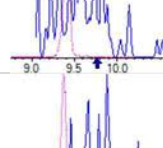
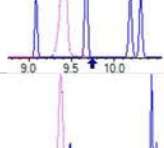
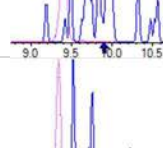
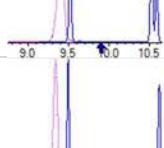
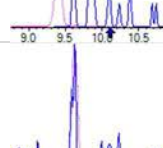
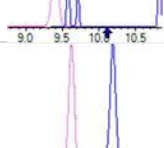
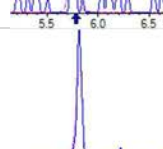
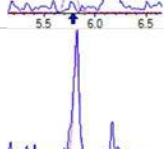
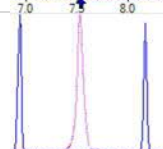
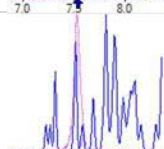
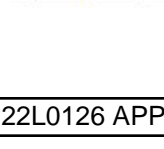
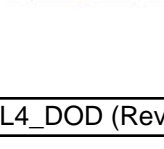
ANALYSIS DATA SHEET

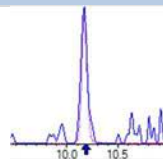
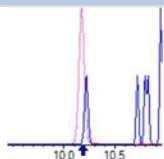
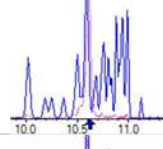
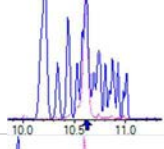
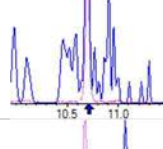
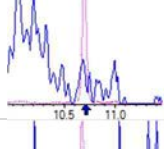
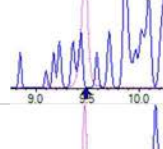
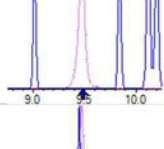
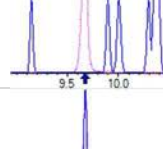
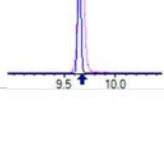
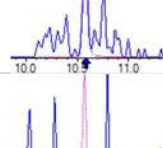
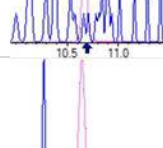
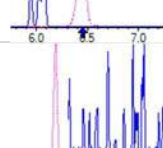
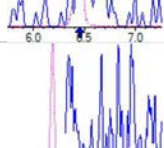
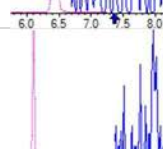
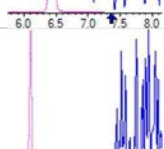
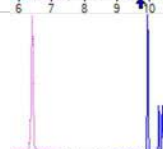
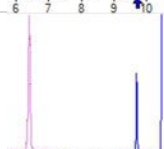
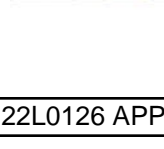
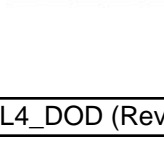
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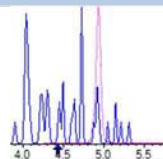
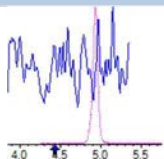
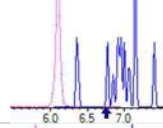
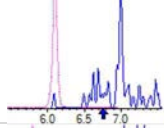
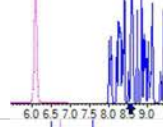
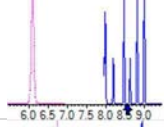
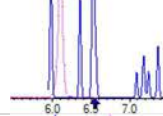
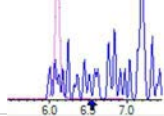
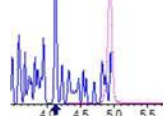
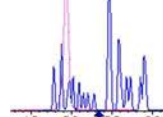
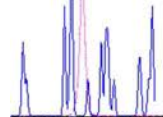
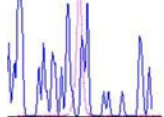
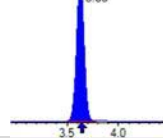
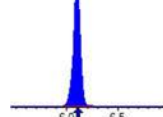
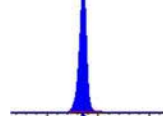
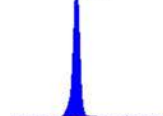
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Matrix:	Solid	Laboratory ID:	BBL0470-BLK1
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		Prepared:	12/27/22 11:43
Solids:		Analyzed:	12/30/22 19:43
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Column:	1	Sequence:	SB04022
		Calibration:	2253011
		Instrument:	Saphira

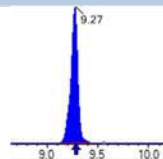
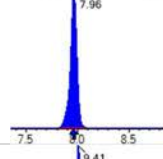
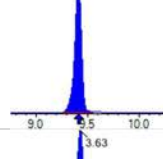
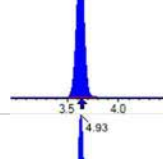
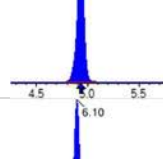
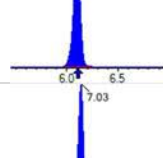
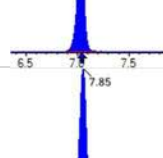
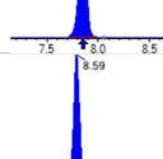
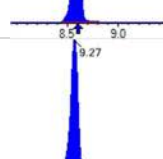
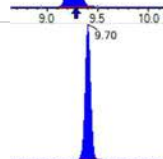

COMPOUND	CONC. (ug/kg Dry)	LOQ	LOD	DL	Q
ADONA	0.040 U	0.080	0.040	0.026	U
PFEESA	0.040 U	0.080	0.040	0.017	U
PFMPA	0.040 U	0.080	0.040	0.028	U
PFMBA	0.040 U	0.080	0.040	0.032	U
NFDHA	0.060 U	0.080	0.060	0.049	U
9CL-PF3ONS	0.040 U	0.080	0.040	0.024	U
11CL-PF3OUDS	0.040 U	0.080	0.040	0.027	U
3:3FTCA	0.080 U	0.16	0.080	0.064	U
5:3FTCA	0.080 U	0.16	0.080	0.065	U
7:3FTCA	0.080 U	0.16	0.080	0.050	U

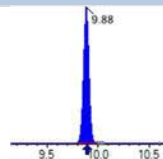
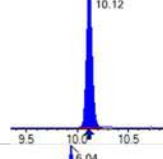
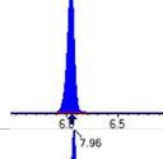
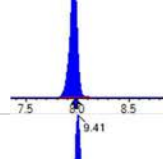
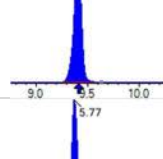
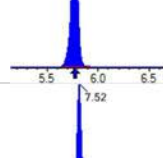
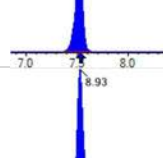
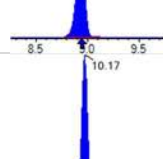
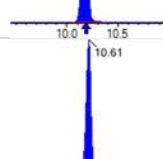
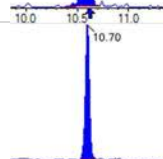
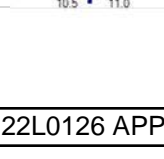
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(263.0 / 219.0) N/A (263.0 / 69.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDaA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

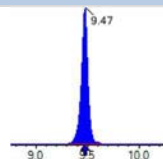

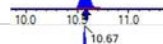
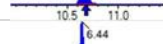

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) N/A (299.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	(349.0 / 80.0) N/A (349.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	(399.0 / 80.0) N/A (399.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) N/A (499.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(699.0 / 80.0) N/A (699.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) N/A (427.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(512.0 / 219.0) N/A (512.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSE	(630.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-PF3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(295.0 / 201.0) N/A (295.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 200505	(3.63 , N/A) (N/A , -0.01 , N/A)	710.2	N/A	0.9311 [1.0000]	93.1% { 99.2% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 410666	(6.10 , N/A) (N/A , 0.00 , N/A)	418.2	N/A	1.0818 [1.0000]	108.2% { 105.3% }			
13C4_PFOA_IIS	(417.0 / 372.0) 388721	(7.85 , N/A) (N/A , 0.00 , N/A)	567.8	N/A	1.0769 [1.0000]	107.7% { 101.3% }			
13C5_PFNA_IIS	(468.0 / 423.0) 307711	(8.59 , N/A) (N/A , -0.01 , N/A)	443.8	N/A	1.0464 [1.0000]	104.6% { 105.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 368295	(9.27, N/A) (N/A, 0.00, N/A)	396.5	N/A	1.0812 [1.0000]	108.1% { 105.7% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 587528	(7.96, N/A) (N/A, 0.00, N/A)	801.3	N/A	0.9710 [1.0000]	97.1% { 92.8% }			
13C4_PFOS_IIS	(503.0 / 79.9) 669599	(9.41, N/A) (N/A, 0.00, N/A)	412.3	N/A	1.0384 [1.0000]	103.8% { 105.3% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1669543	(3.63, N/A) (N/A, 0.00, N/A)	764.8	N/A	8.2937 [8.0000]	103.7% { 107.4% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1223705	(4.93, N/A) (N/A, 0.00, N/A)	575.0	N/A	3.9497 [4.0000]	98.7% { 99.7% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 850914	(6.10, N/A) (N/A, 0.00, N/A)	505.8	N/A	2.0248 [2.0000]	101.2% { 105.8% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 777230	(7.03, N/A) (N/A, 0.00, N/A)	498.4	N/A	2.1290 [2.0000]	106.5% { 100.3% }			
13C8_PFOA_EIS	(421.0 / 376.0) 780624	(7.85, N/A) (N/A, 0.00, N/A)	763.7	N/A	1.9628 [2.0000]	98.1% { 106.0% }			
13C9_PFNA_EIS	(472.0 / 427.0) 340916	(8.59, N/A) (N/A, -0.01, N/A)	535.9	N/A	1.0663 [1.0000]	106.6% { 106.9% }			
13C6_PFDA_EIS	(519.0 / 474.0) 418457	(9.27, N/A) (N/A, 0.00, N/A)	348.7	N/A	0.9406 [1.0000]	94.1% { 109.5% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 558301	(9.70, N/A) (N/A, -0.01, N/A)	353.9	N/A	1.0205 [1.0000]	102.0% { 102.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDaA_EIS	(615.0 / 570.0) 563807	(9.88 , N/A) (N/A , 0.00 , N/A)	376.4	N/A	1.0327 [1.0000]	103.3% { 97.5% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 315303	(10.12 , N/A) (N/A , 0.00 , N/A)	557.0	N/A	0.9114 [1.0000]	91.1% { 83.4% }			
13C3_PFBs_EIS	(302.0 / 80.0) 1940644	(6.04 , N/A) (N/A , 0.00 , N/A)	566.1	N/A	2.1825 [2.0000]	109.1% { 98.7% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 955246	(7.96 , N/A) (N/A , -0.01 , N/A)	706.2	N/A	1.9840 [2.0000]	99.2% { 96.6% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1466459	(9.41 , N/A) (N/A , 0.00 , N/A)	410.5	N/A	1.8173 [2.0000]	90.9% { 95.5% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 643222	(5.77 , N/A) (N/A , -0.01 , N/A)	630.0	N/A	6.4028 [4.0000]	160.1% { 129.3% }			S2,
13C2_6:2FTS_EIS	(429.0 / 81.0) 710850	(7.52 , N/A) (N/A , -0.01 , N/A)	841.5	N/A	5.3479 [4.0000]	133.7% { 122.1% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 687969	(8.93 , N/A) (N/A , -0.01 , N/A)	369.0	N/A	4.1060 [4.0000]	102.6% { 110.4% }			
13C8_PFOSA_EIS	(506.0 / 78.0) 1469086	(10.17 , N/A) (N/A , -0.01 , N/A)	955.4	N/A	1.5598 [2.0000]	78.0% { 77.2% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 16868	(10.61 , N/A) (N/A , -0.01 , N/A)	152.3	N/A	0.0947 [2.0000]	4.7% { 4.5% }			S1,
D5_NEtFOSA_EIS	(531.0 / 169.0) 17375	(10.70 , N/A) (N/A , -0.01 , N/A)	260.3	N/A	0.1065 [2.0000]	5.3% { 5.1% }			S1,

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 1054953	(9.47 , N/A) (N/A , 0.00 , N/A)	364.7	N/A	4.1551 [4.0000]	103.9% { 104.6% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 901744	(9.67 , N/A) (N/A , 0.00 , N/A)	114.7	N/A	4.4670 [4.0000]	111.7% { 100.9% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 385935	(10.58 , N/A) (N/A , 0.00 , N/A)	611.6	N/A	9.9182 [20.0000]	49.6% { 38.8% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 228054	(10.67 , N/A) (N/A , -0.01 , N/A)	861.5	N/A	12.7096 [20.0000]	63.5% { 48.5% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1858395	(6.44 , N/A) (N/A , 0.00 , N/A)	665.7	N/A	7.9051 [8.0000]	98.8% { 106.3% }			

ANALYSIS DATA SHEET

LCS

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	BBL0470-BS1
		File ID:	S2022-12-30A (18)
Sampled:		Prepared:	12/27/22 11:43
		Analyzed:	12/30/22 19:56
Solids:		Preparation:	EPA 1633
		Dilution:	1
Batch:	BBL0470	Sequence:	SB04022
		Calibration:	2253011
Column:	1	Instrument:	Saphira

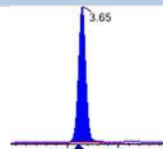
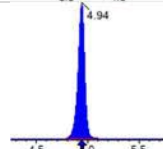
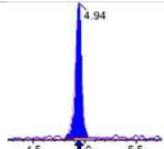
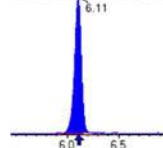
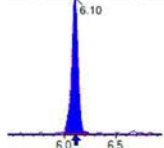
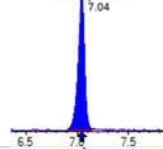
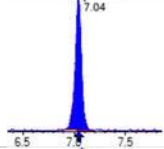
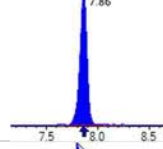
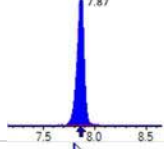
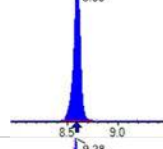
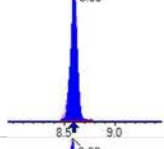
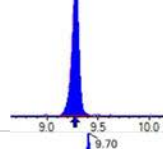
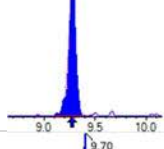
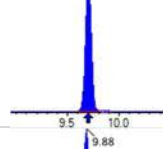
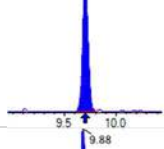
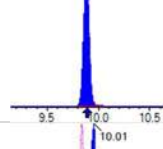
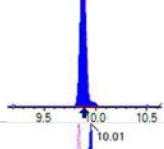
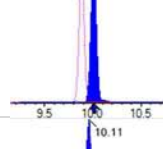
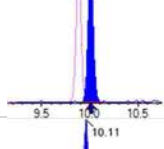
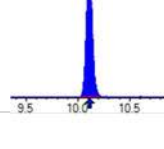
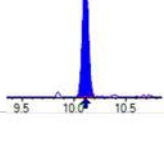
COMPOUND	CONC. (ug/kg Dry)	LOQ	DL	Q
PFBA	1.59	0.30	0.15	
PFPEA	0.797	0.080	0.022	
PFHXA	0.378	0.040	0.015	
PFHPA	0.383	0.040	0.015	
PFOA	0.370	0.040	0.021	
PFNA	0.397	0.040	0.022	
PFDA	0.409	0.040	0.022	
PFUnA	0.376	0.040	0.020	
PFDOA	0.388	0.040	0.023	
PFTRDA	0.389	0.040	0.016	
PFTEDA	0.394	0.040	0.025	
PFBS	0.336	0.040	0.016	
PFPEs	0.381	0.040	0.012	
PFHXS	0.350	0.040	0.015	
PFHPS	0.357	0.040	0.011	
PFOS	0.370	0.040	0.0097	
PFNS	0.372	0.040	0.015	
PFDS	0.347	0.040	0.014	
PFDOS	0.444	0.040	0.013	
4:2FTS	1.63	0.16	0.045	
6:2FTS	1.45	0.16	0.061	
8:2FTS	1.55	0.16	0.051	
PFOSA	0.381	0.040	0.012	
NMeFOSA	1.21	0.16	0.066	
NEtFOSA	1.62	0.16	0.027	
NMeFOSAA	0.405	0.040	0.010	
NEtFOSAA	0.429	0.040	0.018	
NMeFOSE	1.67	0.16	0.054	
NEtFOSE	1.48	0.16	0.047	
HFPO-DA	0.747	0.080	0.022	

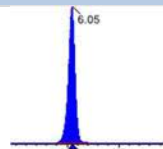
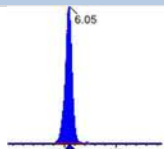
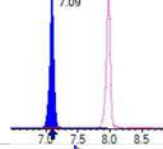
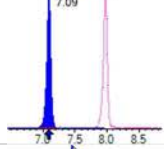
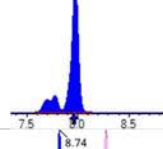
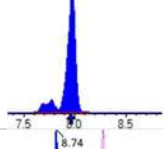
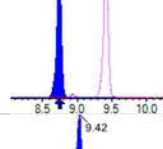
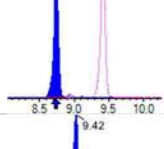
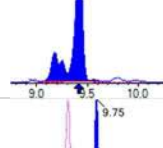
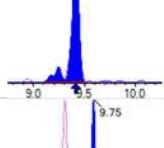
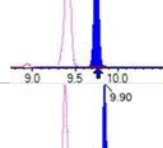
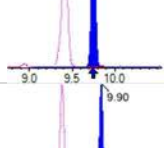
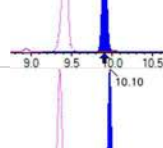
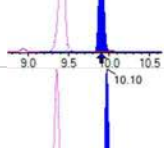
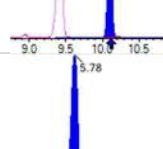
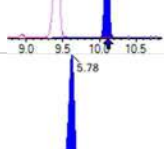
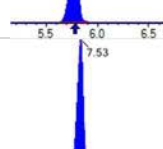
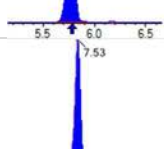
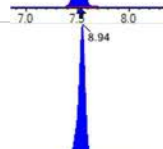
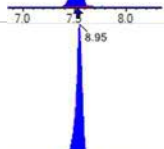

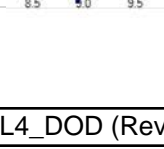
ANALYSIS DATA SHEET

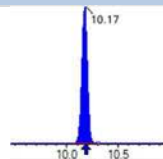
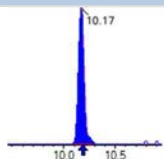
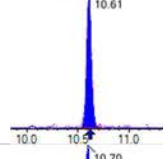
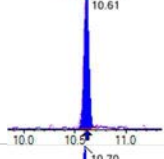
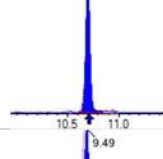
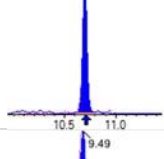
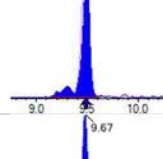
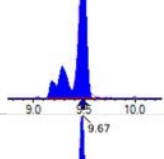
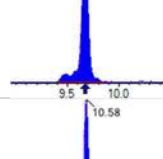
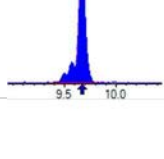
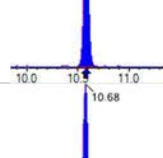
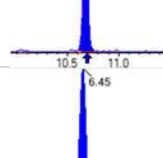
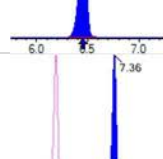
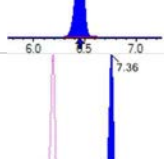
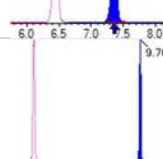
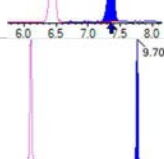
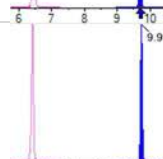
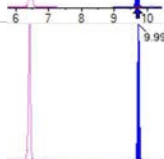

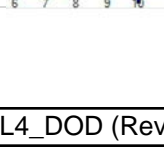
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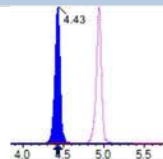
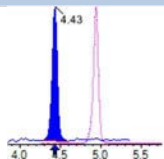
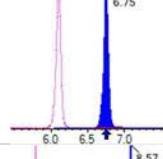
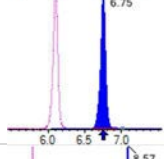
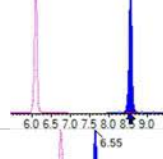
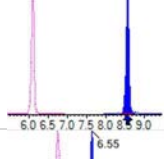
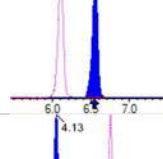
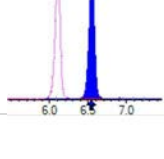
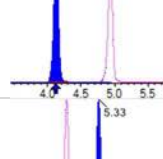
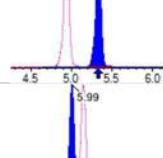
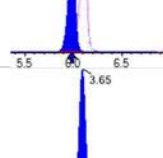
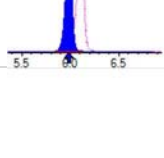
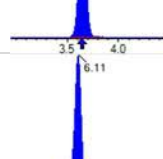
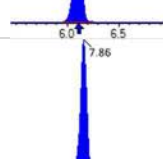
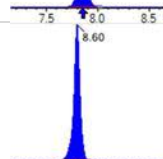

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	BBL0470-BS1
		File ID:	S2022-12-30A (18)
Sampled:		Prepared:	12/27/22 11:43
		Analyzed:	12/30/22 19:56
Solids:		Preparation:	EPA 1633
		Dilution:	1
Batch:	BBL0470	Sequence:	SB04022
		Calibration:	2253011
Column:	1	Instrument:	Saphira

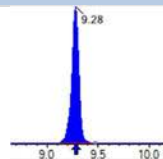
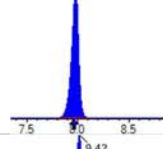
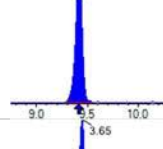
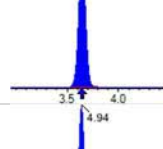
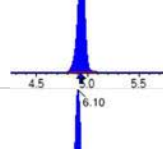
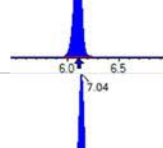
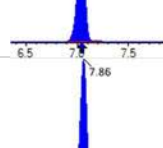
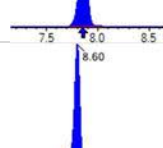
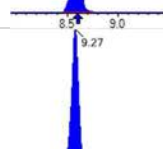
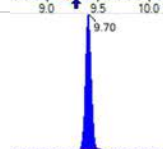
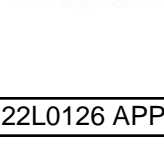
COMPOUND	CONC. (ug/kg Dry)	LOQ	DL	Q
ADONA	0.805	0.080	0.026	
PFEESA	0.701	0.080	0.017	
PFMPA	0.717	0.080	0.028	
PFMBA	0.811	0.080	0.032	
NFDHA	0.756	0.080	0.049	
9CL-PF3ONS	0.774	0.080	0.024	
11CL-PF3OUDS	0.816	0.080	0.027	
3:3FTCA	1.48	0.16	0.064	
5:3FTCA	1.51	0.16	0.065	
7:3FTCA	1.09	0.16	0.050	

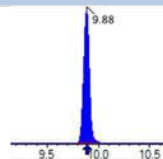
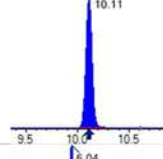
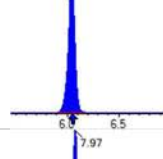
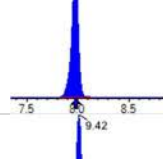
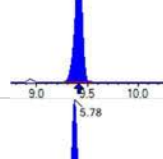
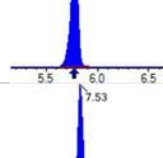
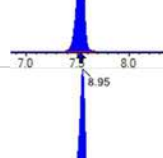
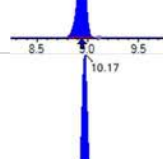
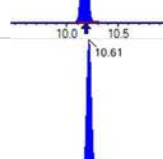
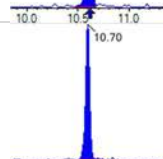
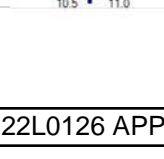
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 843489	(3.65 , 1.00) (0.00 , N/A , 0.0)	409.6	N/A 0.0 0.0	3.9721 [4.0000]	99.3%			
PFPeA	(263.0 / 219.0) 606825 (263.0 / 69.0) 7050	(4.94 , 1.00) (0.00 , N/A , -0.1)	416.2 134.2	0.0116 112.4 108.6	1.9927 [2.0000]	99.6%			
PFHxA	(313.0 / 269.0) 426663 (313.0 / 119.0) 40378	(6.11 , 1.00) (0.00 , N/A , 0.1)	384.5 207.0	0.0946 97.2 103.4	0.9449 [1.0000]	94.5%			
PFHpA	(363.0 / 319.0) 390826 (363.0 / 169.0) 115866	(7.04 , 1.00) (0.00 , N/A , 0.2)	374.7 306.8	0.2965 103.6 105.3	0.9584 [1.0000]	95.8%			
PFOA	(413.0 / 369.0) 418526 (413.0 / 169.0) 141309	(7.86 , 1.00) (0.00 , N/A , -0.2)	477.5 487.9	0.3376 111.2 100.4	0.9246 [1.0000]	92.5%			
PFNA	(463.0 / 419.0) 310381 (463.0 / 169.0) 67177	(8.60 , 1.00) (0.00 , N/A , 0.2)	465.8 396.7	0.2164 102.2 108.3	0.9924 [1.0000]	99.2%			
PFDA	(513.0 / 469.0) 450353 (513.0 / 169.0) 48541	(9.28 , 1.00) (0.01 , N/A , 0.2)	372.5 157.4	0.1078 116.9 118.6	1.0216 [1.0000]	102.2%			
PFUnA	(563.0 / 519.0) 519461 (563.0 / 169.0) 51993	(9.70 , 1.00) (0.00 , N/A , 0.1)	427.1 222.8	0.1001 130.1 101.9	0.9409 [1.0000]	94.1%			
PFDoA	(613.0 / 569.0) 515009 (613.0 / 169.0) 80863	(9.88 , 1.00) (0.00 , N/A , 0.3)	626.9 359.3	0.1570 116.6 118.5	0.9691 [1.0000]	96.9%			
PFTTrDA	(663.0 / 619.0) 451236 (663.0 / 169.0) 77356	(10.01 , 1.01) (N/A , -0.01 , -0.1)	751.4 260.4	0.1714 78.7 87.9	0.9731 [1.0000]	97.3%			
PFTeDA	(713.0 / 669.0) 301341 (713.0 / 169.0) 61423	(10.11 , 1.00) (0.00 , N/A , -0.1)	537.9 251.2	0.2038 103.3 110.5	0.9862 [1.0000]	98.6%			

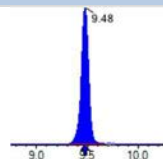




Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 598892 (299.0 / 99.0) 364195	(6.05 , 1.00) (0.00 , N/A , 0.0)	504.4 483.8	0.6081 92.5 100.3	0.8398 [0.8847]	94.9%			
PFPeS	(349.0 / 80.0) 1014555 (349.0 / 99.0) 374975	(7.09 , 0.89) (N/A , 0.00 , 0.0)	626.8 519.3	0.3696 99.7 108.4	0.9526 [0.9384]	101.5%			
PFHxS	(399.0 / 80.0) 819761 (399.0 / 99.0) 270725	(7.98 , 1.00) (0.00 , N/A , 0.1)	592.9 684.4	0.3302 101.3 105.7	0.8739 [0.9110]	95.9%			
PFHpS	(449.0 / 80.0) 752095 (449.0 / 99.0) 192413	(8.74 , 0.93) (N/A , 0.01 , 0.0)	668.3 358.5	0.2558 98.2 99.5	0.8936 [0.9514]	93.9%			
PFOS	(499.0 / 80.0) 896372 (499.0 / 99.0) 215855	(9.42 , 1.00) (0.00 , N/A , 0.2)	154.5 244.2	0.2408 115.8 100.9	0.9253 [0.9275]	99.8%			
PFNS	(549.0 / 80.0) 1021766 (549.0 / 99.0) 266296	(9.75 , 1.04) (N/A , 0.00 , -0.1)	524.3 466.4	0.2606 109.5 96.3	0.9305 [0.9599]	96.9%			
PFDS	(599.0 / 80.0) 1152832 (599.0 / 99.0) 294858	(9.90 , 1.05) (N/A , 0.00 , 0.2)	707.0 727.0	0.2558 97.2 109.1	0.8683 [0.9631]	90.2%			
PFDoS	(699.0 / 80.0) 693372 (699.0 / 99.0) 144753	(10.10 , 1.07) (N/A , -0.01 , -0.1)	855.1 467.3	0.2088 106.5 92.3	1.1090 [0.9696]	114.4%			
4:2FTS	(327.0 / 307.0) 2145128 (327.0 / 81.0) 1270637	(5.78 , 1.00) (0.00 , N/A , 0.0)	712.0 470.8	0.5923 82.8 107.1	4.0821 [3.7381]	109.2%			
6:2FTS	(427.0 / 407.0) 1100332 (427.0 / 81.0) 900141	(7.53 , 1.00) (0.00 , N/A , -0.3)	577.8 600.7	0.8181 110.7 98.4	3.6189 [3.7962]	95.3%			
8:2FTS	(527.0 / 507.0) 1090779 (527.0 / 81.0) 762770	(8.94 , 1.00) (0.00 , N/A , -0.2)	503.0 453.0	0.6993 114.3 94.5	3.8680 [3.8332]	100.9%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 907282 (498.0 / 478.0) 17115	(10.17 , 1.00) (0.00 , N/A , 0.4)	626.4 322.7	0.0189 90.4 96.9	0.9522 [1.0000]	95.2%			
NMeFOSA	(512.0 / 219.0) 35223 (512.0 / 169.0) 27169	(10.61 , 1.00) (0.00 , N/A , -0.4)	458.9 204.7	0.7713 111.5 109.3	3.0301 [4.0000]	75.8%			
NEIFOSA	(526.0 / 219.0) 48095 (526.0 / 169.0) 48697	(10.70 , 1.00) (0.00 , N/A , 0.0)	453.5 276.1	1.0125 102.0 92.5	4.0512 [4.0000]	101.3%			
NMeFOSAA	(570.0 / 419.0) 266061 (570.0 / 483.0) 98937	(9.49 , 1.00) (0.02 , N/A , 0.4)	237.7 551.3	0.3719 66.8 74.9	1.0128 [1.0000]	101.3%			
NEIFOSAA	(584.0 / 419.0) 231587 (584.0 / 526.0) 128166	(9.67 , 1.00) (0.00 , N/A , 0.0)	493.9 836.4	0.5534 93.3 93.9	1.0729 [1.0000]	107.3%			
NMeFOSE	(616.0 / 59.0) 105685	(10.58 , 1.00) (0.01 , N/A , 0.0)	481.5	N/A 0.0 0.0	4.1706 [4.0000]	104.3%			
NEIFOSE	(630.0 / 59.0) 21523	(10.68 , 1.00) (0.01 , N/A , 0.0)	336.5	N/A 0.0 0.0	3.7038 [4.0000]	92.6%			
HFPO-DA	(285.0 / 169.0) 306799 (285.0 / 185.0) 856261	(6.45 , 1.00) (0.00 , N/A , -0.1)	568.7 507.0	2.7909 108.9 103.9	1.8678 [2.0000]	93.4%			
ADONA	(377.0 / 85.0) 1317898 (377.0 / 251.0) 153266	(7.36 , 1.14) (N/A , 0.01 , 0.0)	570.6 333.6	0.1163 94.5 98.1	2.0134 [1.8854]	106.8%			
9CI-PF3ONS	(531.0 / 351.0) 3461415 (533.0 / 353.0) 1067435	(9.70 , 1.50) (N/A , 0.00 , 0.0)	834.6 490.1	0.3084 97.6 93.7	1.9362 [1.8665]	103.7%			
11CI-PF3OUDS	(631.0 / 451.0) 2063115 (633.0 / 453.0) 640622	(9.99 , 1.55) (N/A , 0.00 , -0.1)	1268.0 911.5	0.3105 100.2 93.6	2.0390 [1.8864]	108.1%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 38756 (241.0 / 117.0) 51988	(4.43 , 0.90) (N/A , 0.00 , -0.1)	644.3 181.7	1.3414 102.0 102.6	3.7027 [4.0000]	92.6%			
5:3FTCA	(341.0 / 236.7) 260142 (341.0 / 217.0) 407751	(6.75 , 1.11) (N/A , 0.01 , 0.0)	400.7 390.7	1.5674 87.3 101.5	3.7641 [4.0000]	94.1%			
7:3FTCA	(441.0 / 317.0) 246243 (441.0 / 337.0) 213670	(8.57 , 1.40) (N/A , 0.01 , -0.1)	352.5 309.8	0.8677 105.2 102.1	2.7351 [4.0000]	68.4%			QC,
PFEESA	(315.0 / 135.0) 726455 (315.0 / 83.0) 201524	(6.55 , 1.07) (N/A , 0.01 , 0.2)	653.2 534.9	0.2774 91.0 93.4	1.7523 [1.7849]	98.2%			
PFMPA	(229.0 / 85.0) 159440	(4.13 , 0.84) (N/A , 0.00 , 0.0)	888.7	N/A 0.0 0.0	1.7927 [2.0000]	89.6%			
PFMBA	(279.0 / 85.0) 513970	(5.33 , 1.08) (N/A , 0.00 , 0.0)	684.3	N/A 0.0 0.0	2.0265 [2.0000]	101.3%			
NFDHA	(295.0 / 201.0) 419038 (295.0 / 85.0) 374009	(5.99 , 0.98) (N/A , 0.00 , 0.1)	774.0 548.5	0.8925 103.9 101.5	1.8907 [2.0000]	94.5%			
13C3_PFBa_IIS	(216.0 / 172.0) 225807	(3.65 , N/A) (N/A , 0.01 , N/A)	752.0	N/A	1.0486 [1.0000]	104.9% { 111.7% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 414246	(6.11 , N/A) (N/A , 0.00 , N/A)	569.4	N/A	1.0912 [1.0000]	109.1% { 106.3% }			
13C4_PFOA_IIS	(417.0 / 372.0) 389380	(7.86 , N/A) (N/A , 0.00 , N/A)	525.5	N/A	1.0787 [1.0000]	107.9% { 101.5% }			
13C5_PFNA_IIS	(468.0 / 423.0) 348044	(8.60 , N/A) (N/A , 0.00 , N/A)	432.9	N/A	1.1836 [1.0000]	118.4% { 119.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 354358	(9.28 , N/A) (N/A , 0.01 , N/A)	336.6	N/A	1.0402 [1.0000]	104.0% { 101.7% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 627207	(7.98 , N/A) (N/A , 0.01 , N/A)	702.5	N/A	1.0366 [1.0000]	103.7% { 99.1% }			
13C4_PFOS_IIS	(503.0 / 79.9) 681370	(9.42 , N/A) (N/A , 0.01 , N/A)	397.5	N/A	1.0567 [1.0000]	105.7% { 107.2% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1818259	(3.65 , N/A) (N/A , 0.01 , N/A)	758.5	N/A	8.0204 [8.0000]	100.3% { 116.9% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1282840	(4.94 , N/A) (N/A , 0.01 , N/A)	547.6	N/A	4.1048 [4.0000]	102.6% { 104.6% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 910051	(6.10 , N/A) (N/A , 0.00 , N/A)	543.5	N/A	2.1469 [2.0000]	107.3% { 113.1% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 778347	(7.04 , N/A) (N/A , 0.00 , N/A)	449.3	N/A	2.1137 [2.0000]	105.7% { 100.4% }			
13C8_PFOA_EIS	(421.0 / 376.0) 849828	(7.86 , N/A) (N/A , 0.00 , N/A)	560.1	N/A	2.1331 [2.0000]	106.7% { 115.4% }			
13C9_PFNA_EIS	(472.0 / 427.0) 324062	(8.60 , N/A) (N/A , 0.00 , N/A)	451.9	N/A	0.8961 [1.0000]	89.6% { 101.7% }			
13C6_PFDA_EIS	(519.0 / 474.0) 444543	(9.27 , N/A) (N/A , 0.00 , N/A)	377.1	N/A	1.0386 [1.0000]	103.9% { 116.4% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 604942	(9.70 , N/A) (N/A , 0.00 , N/A)	679.4	N/A	1.1492 [1.0000]	114.9% { 111.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 554511	(9.88 , N/A) (N/A , 0.00 , N/A)	684.6	N/A	1.0556 [1.0000]	105.6% { 95.9% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 302067	(10.11 , N/A) (N/A , -0.01 , N/A)	2466.2	N/A	0.9075 [1.0000]	90.8% { 79.9% }			
13C3_PFBs_EIS	(302.0 / 80.0) 2235689	(6.04 , N/A) (N/A , 0.00 , N/A)	645.0	N/A	2.3552 [2.0000]	117.8% { 113.7% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1083137	(7.97 , N/A) (N/A , 0.00 , N/A)	701.2	N/A	2.1073 [2.0000]	105.4% { 109.5% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1663764	(9.42 , N/A) (N/A , 0.01 , N/A)	254.4	N/A	2.0262 [2.0000]	101.3% { 108.3% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 618150	(5.78 , N/A) (N/A , 0.00 , N/A)	627.8	N/A	5.7639 [4.0000]	144.1% { 124.2% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 757506	(7.53 , N/A) (N/A , 0.00 , N/A)	775.0	N/A	5.3384 [4.0000]	133.5% { 130.1% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 723131	(8.95 , N/A) (N/A , 0.02 , N/A)	591.8	N/A	4.0428 [4.0000]	101.1% { 116.0% }			
13C8_PFOA_EIS	(506.0 / 78.0) 1643282	(10.17 , N/A) (N/A , 0.00 , N/A)	764.8	N/A	1.7146 [2.0000]	85.7% { 86.3% }			
D3_NMeFOA_EIS	(515.0 / 169.0) 23933	(10.61 , N/A) (N/A , -0.01 , N/A)	194.0	N/A	0.1321 [2.0000]	6.6% { 6.4% }			S1,
D5_NEtFOA_EIS	(531.0 / 169.0) 23938	(10.70 , N/A) (N/A , -0.01 , N/A)	250.4	N/A	0.1442 [2.0000]	7.2% { 7.0% }			S1,

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 1157944	(9.48 , N/A) (N/A , 0.00 , N/A)	417.5	N/A	4.4820 [4.0000]	112.0% { 114.9% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 875861	(9.67 , N/A) (N/A , 0.00 , N/A)	114.2	N/A	4.2638 [4.0000]	106.6% { 98.0% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 415105	(10.58 , N/A) (N/A , 0.00 , N/A)	902.4	N/A	10.4835 [20.0000]	52.4% { 41.7% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 218960	(10.67 , N/A) (N/A , -0.01 , N/A)	970.4	N/A	11.9920 [20.0000]	60.0% { 46.6% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1893026	(6.45 , N/A) (N/A , 0.01 , N/A)	543.1	N/A	7.9828 [8.0000]	99.8% { 108.3% }			

ANALYSIS DATA SHEET

MRL Check

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	BBL0470-MRL1
		File ID:	S2022-12-30A (19)
Sampled:		Prepared:	12/27/22 11:43
		Analyzed:	12/30/22 20:09
Solids:		Preparation:	EPA 1633
		Dilution:	1
Batch:	BBL0470	Sequence:	SB04022
		Calibration:	2253011
Column:	1	Instrument:	Saphira

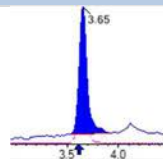
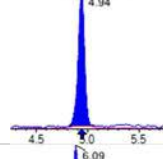
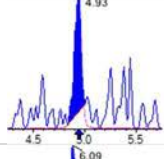
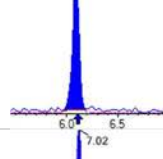
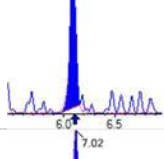
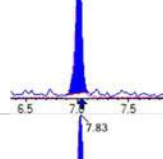
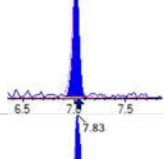
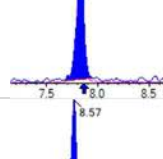
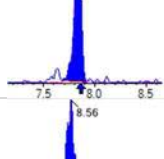
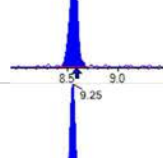
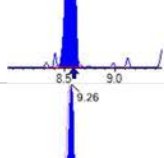
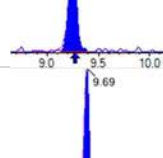
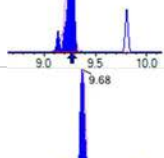
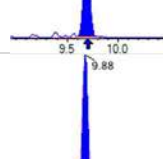
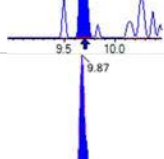
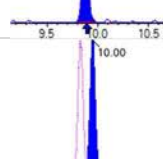
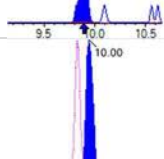
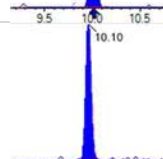
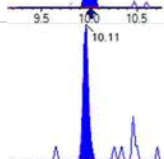
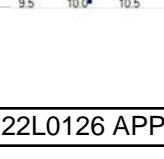
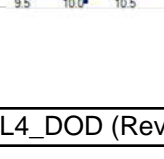
COMPOUND	CONC. (ug/kg Dry)	LOQ	DL	Q
PFBA	0.197	0.30	0.15	J
PFPEA	0.0829	0.080	0.022	
PFHXA	0.0472	0.040	0.015	
PFHPA	0.0392	0.040	0.015	J
PFOA	0.0447	0.040	0.021	
PFNA	0.0455	0.040	0.022	
PFDA	0.0423	0.040	0.022	
PFUnA	0.0481	0.040	0.020	
PFDOA	0.0464	0.040	0.023	
PFTRDA	0.0498	0.040	0.016	
PFTEDA	0.0479	0.040	0.025	
PFBS	0.0378	0.040	0.016	J
PFPEs	0.0403	0.040	0.012	
PFHXS	0.0405	0.040	0.015	
PFHPS	0.0408	0.040	0.011	
PFOS	0.0493	0.040	0.0097	BS2
PFNS	0.0387	0.040	0.015	J
PFDS	0.0366	0.040	0.014	J
PFDOS	0.0455	0.040	0.013	
4:2FTS	0.142	0.16	0.045	J
6:2FTS	0.157	0.16	0.061	J
8:2FTS	0.138	0.16	0.051	J
PFOSA	0.0395	0.040	0.012	J
NMeFOSA	0.0996	0.16	0.066	J
NEtFOSA	0.185	0.16	0.027	
NMeFOSAA	0.0447	0.040	0.010	
NEtFOSAA	0.0422	0.040	0.018	
NMeFOSE	0.171	0.16	0.054	
NEtFOSE	0.188	0.16	0.047	
HFPO-DA	0.0853	0.080	0.020	

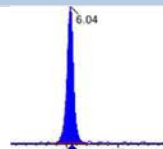
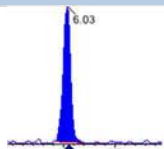
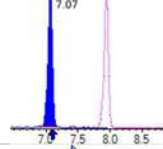
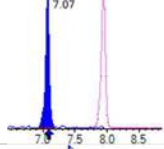
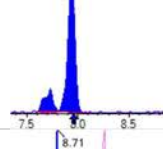
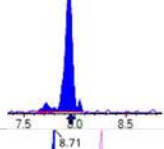
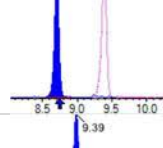
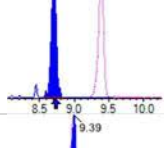
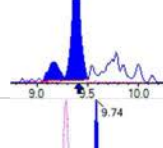
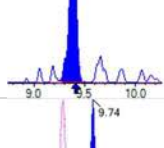
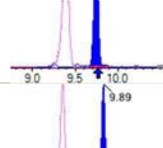
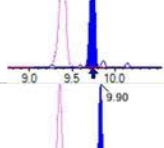
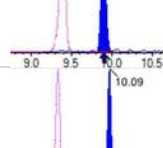
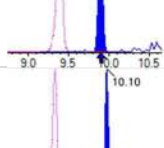
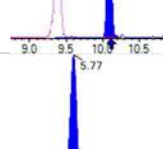
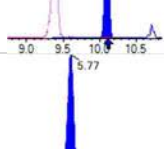
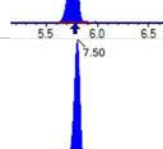
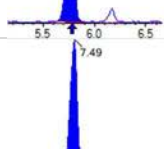
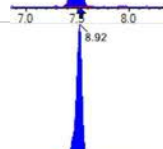
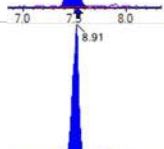

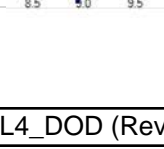
ANALYSIS DATA SHEET

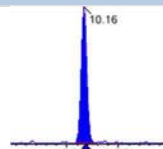
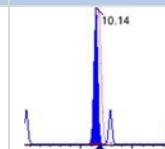
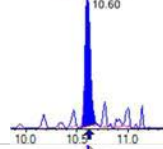
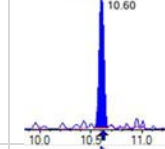
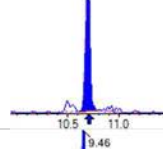
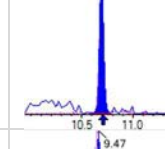
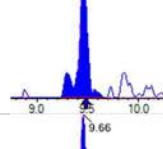
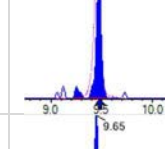
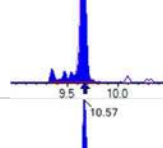
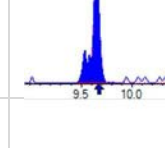
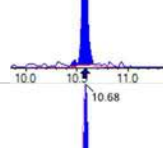
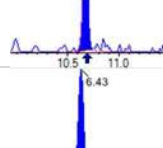
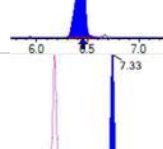
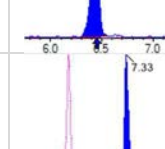
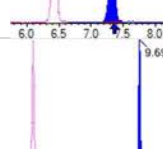
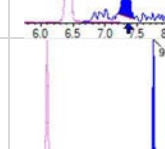
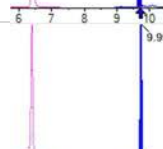
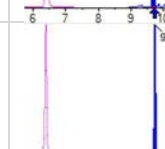

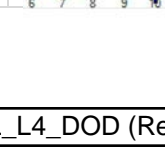
MRL Check

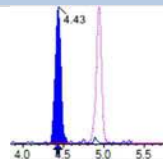
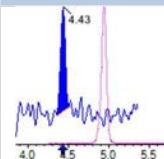
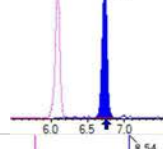
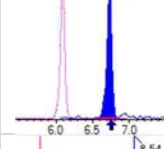
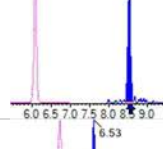
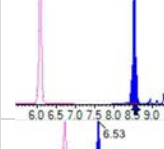
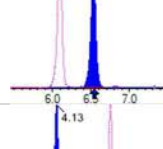
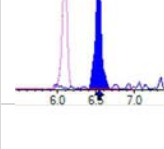
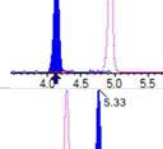
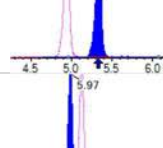
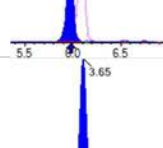
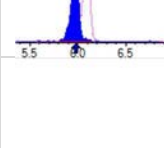
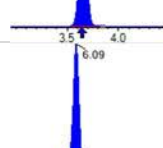
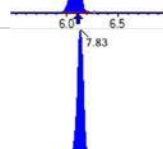
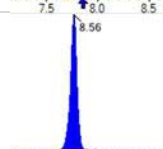
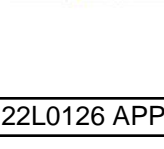
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Matrix:	Solid	Laboratory ID:	BBL0470-MRL1
		File ID:	S2022-12-30A (19)
Sampled:		Prepared:	12/27/22 11:43
		Analyzed:	12/30/22 20:09
Solids:		Preparation:	EPA 1633
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Batch:	BBL0470	Sequence:	SB04022
		Calibration:	2253011
Column:	1	Instrument:	Saphira

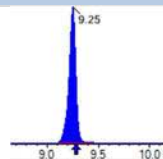
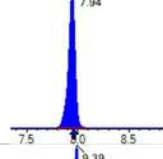
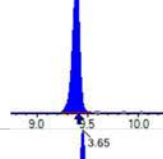
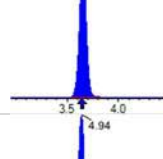
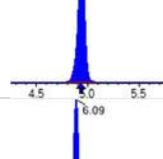
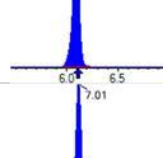
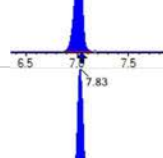
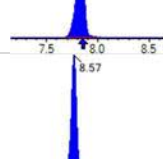
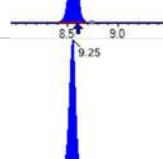
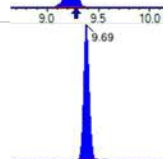

COMPOUND	CONC. (ug/kg Dry)	LOQ	DL	Q
ADONA	0.0868	0.080	0.026	
PFEESA	0.0681	0.080	0.017	J
PFMPA	0.0752	0.080	0.028	J
PFMBA	0.0801	0.080	0.032	
NFDHA	0.0888	0.080	0.049	
9CL-PF3ONS	0.0715	0.080	0.024	J
11CL-PF3OUDS	0.0897	0.080	0.027	
3:3FTCA	0.129	0.16	0.064	J
5:3FTCA	0.143	0.16	0.065	J
7:3FTCA	0.119	0.16	0.050	J

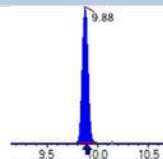
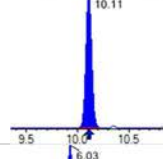
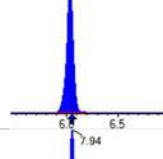
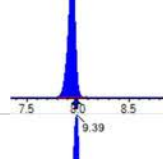
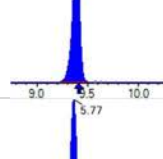
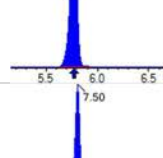
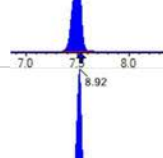
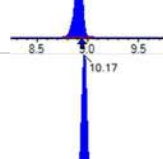
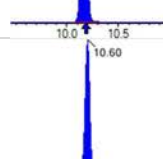
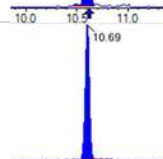
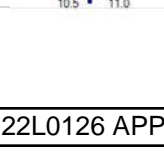
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 99771	(3.65 , 1.00) (0.00 , N/A , 0.0)	152.9	N/A 0.0 0.0	0.4935 [0.4000]	123.4%			
PFPeA	(263.0 / 219.0) 63498 (263.0 / 69.0) 703	(4.94 , 1.00) (0.00 , N/A , 0.4)	218.6 13.3	0.0111 107.1 103.4	0.2072 [0.2000]	103.6%			
PFHxA	(313.0 / 269.0) 52207 (313.0 / 119.0) 4281	(6.09 , 1.00) (0.00 , N/A , 0.1)	112.4 29.5	0.0820 84.2 89.6	0.1181 [0.1000]	118.1%			
PFHpA	(363.0 / 319.0) 39453 (363.0 / 169.0) 12891	(7.02 , 1.00) (0.00 , N/A , -0.1)	94.6 88.7	0.3267 114.2 116.0	0.0979 [0.1000]	97.9%			
PFOA	(413.0 / 369.0) 49843 (413.0 / 169.0) 17344	(7.83 , 1.00) (0.00 , N/A , -0.2)	114.9 96.2	0.3480 114.6 103.5	0.1118 [0.1000]	111.8%			
PFNA	(463.0 / 419.0) 36096 (463.0 / 169.0) 8866	(8.57 , 1.00) (0.00 , N/A , 0.5)	180.0 78.0	0.2456 116.0 122.9	0.1138 [0.1000]	113.8%			
PFDA	(513.0 / 469.0) 46402 (513.0 / 169.0) 3508	(9.25 , 1.00) (0.00 , N/A , -0.9)	107.9 207.5	0.0756 82.0 83.2	0.1058 [0.1000]	105.8%			
PFUnA	(563.0 / 519.0) 58156 (563.0 / 169.0) 5096	(9.69 , 1.00) (0.01 , N/A , 1.0)	126.2 25.8	0.0876 113.9 89.2	0.1202 [0.1000]	120.2%			
PFDoA	(613.0 / 569.0) 62001 (613.0 / 169.0) 3728	(9.88 , 1.00) (0.00 , N/A , 0.2)	194.3 90.0	0.0601 44.6 45.4	0.1161 [0.1000]	116.1%			IR1,
PFTTrDA	(663.0 / 619.0) 58045 (663.0 / 169.0) 15969	(10.00 , 1.01) (N/A , -0.01 , 0.2)	611.7 269.7	0.2751 126.3 141.1	0.1245 [0.1000]	124.5%			
PFTeDA	(713.0 / 669.0) 39716 (713.0 / 169.0) 4335	(10.10 , 1.00) (-0.01 , N/A , -0.2)	142.5 39.4	0.1092 55.3 59.2	0.1198 [0.1000]	119.8%			

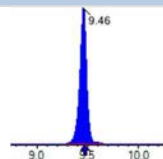

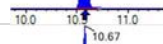


Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 61810 (299.0 / 99.0) 37921	(6.04 , 1.00) (0.00 , N/A , 0.2)	246.9 161.1	0.6135 93.4 101.2	0.0944 [0.0885]	106.7%			
PFPeS	(349.0 / 80.0) 102365 (349.0 / 99.0) 33838	(7.07 , 0.89) (N/A , -0.02 , -0.2)	296.1 224.6	0.3306 89.2 97.0	0.1007 [0.0938]	107.3%			
PFHxS	(399.0 / 80.0) 90582 (399.0 / 99.0) 35843	(7.94 , 1.00) (0.00 , N/A , -0.2)	276.1 212.3	0.3957 121.4 126.6	0.1012 [0.0911]	111.1%			
PFHpS	(449.0 / 80.0) 80913 (449.0 / 99.0) 18821	(8.71 , 0.93) (N/A , -0.03 , 0.0)	256.5 120.2	0.2326 89.3 90.5	0.1019 [0.0951]	107.1%			
PFOS	(499.0 / 80.0) 112516 (499.0 / 99.0) 21475	(9.39 , 1.00) (0.00 , N/A , -0.1)	47.8 77.7	0.1909 91.8 79.9	0.1231 [0.0927]	132.8%			QC,
PFNS	(549.0 / 80.0) 100126 (549.0 / 99.0) 27668	(9.74 , 1.04) (N/A , 0.00 , 0.3)	198.8 181.5	0.2763 116.1 102.1	0.0967 [0.0960]	100.7%			
PFDS	(599.0 / 80.0) 114486 (599.0 / 99.0) 29289	(9.89 , 1.05) (N/A , -0.01 , -0.1)	201.8 102.9	0.2558 97.2 109.1	0.0914 [0.0963]	94.9%			
PFDoS	(699.0 / 80.0) 67104 (699.0 / 99.0) 18709	(10.09 , 1.08) (N/A , -0.02 , -0.2)	387.7 647.8	0.2788 142.2 123.3	0.1138 [0.0970]	117.4%			
4:2FTS	(327.0 / 307.0) 195637 (327.0 / 81.0) 128639	(5.77 , 1.00) (0.00 , N/A , -0.2)	495.5 189.0	0.6575 91.9 118.9	0.3556 [0.3738]	95.1%			
6:2FTS	(427.0 / 407.0) 111492 (427.0 / 81.0) 77563	(7.50 , 1.00) (0.00 , N/A , 0.2)	391.9 293.1	0.6957 94.1 83.7	0.3930 [0.3796]	103.5%			
8:2FTS	(527.0 / 507.0) 110623 (527.0 / 81.0) 74153	(8.92 , 1.00) (0.00 , N/A , 0.3)	390.4 164.2	0.6703 109.6 90.6	0.3454 [0.3833]	90.1%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 91122 (498.0 / 478.0) 1112	(10.16 , 1.00) (0.00 , N/A , 1.1)	283.0 58.3	0.0122 58.5 62.7	0.0988 [0.1000]	98.8%			
NMeFOSA	(512.0 / 219.0) 3513 (512.0 / 169.0) 4647	(10.60 , 1.00) (0.00 , N/A , 0.0)	39.6 65.3	1.3226 191.1 187.4	0.2490 [0.4000]	62.3%			QC,IR2,
NEIFOSA	(526.0 / 219.0) 6572 (526.0 / 169.0) 7793	(10.70 , 1.00) (0.01 , N/A , 0.3)	120.0 65.9	1.1857 119.5 108.3	0.4627 [0.4000]	115.7%			
NMeFOSAA	(570.0 / 419.0) 26890 (570.0 / 483.0) 10207	(9.46 , 1.00) (0.00 , N/A , -0.6)	65.5 2276.9	0.3796 68.2 76.4	0.1117 [0.1000]	111.7%			
NEIFOSAA	(584.0 / 419.0) 24369 (584.0 / 526.0) 13483	(9.66 , 1.00) (0.01 , N/A , 0.5)	188.8 120.5	0.5533 93.3 93.9	0.1055 [0.1000]	105.5%			
NMeFOSE	(616.0 / 59.0) 12670	(10.57 , 1.00) (0.00 , N/A , 0.0)	116.3	N/A 0.0 0.0	0.4274 [0.4000]	106.8%			
NEtFOSE	(630.0 / 59.0) 2389	(10.68 , 1.00) (0.01 , N/A , 0.0)	68.0	N/A 0.0 0.0	0.4708 [0.4000]	117.7%			
HFPO-DA	(285.0 / 169.0) 34887 (285.0 / 185.0) 81613	(6.43 , 1.00) (0.00 , N/A , 0.0)	354.1 270.2	2.3393 91.3 87.1	0.2133 [0.2000]	106.7%			
ADONA	(377.0 / 85.0) 141439 (377.0 / 251.0) 14149	(7.33 , 1.14) (N/A , -0.03 , 0.0)	456.1 58.3	0.1000 81.3 84.4	0.2170 [0.1885]	115.1%			
9CI-PF3ONS	(531.0 / 351.0) 318150 (533.0 / 353.0) 106352	(9.69 , 1.51) (N/A , -0.01 , 0.1)	299.5 249.5	0.3343 105.8 101.5	0.1787 [0.1867]	95.8%			
11CI-PF3OUDS	(631.0 / 451.0) 225902 (633.0 / 453.0) 74462	(9.99 , 1.55) (N/A , -0.01 , 0.1)	338.8 518.0	0.3296 106.4 99.4	0.2242 [0.1886]	118.9%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 3406 (241.0 / 117.0) 3971	(4.43 , 0.90) (N/A , 0.01 , 0.2)	154.5 20.9	1.1660 88.7 89.2	0.3234 [0.4000]	80.8%			
5:3FTCA	(341.0 / 236.7) 24162 (341.0 / 217.0) 42928	(6.73 , 1.11) (N/A , -0.01 , 0.1)	250.6 154.7	1.7767 99.0 115.0	0.3571 [0.4000]	89.3%			
7:3FTCA	(441.0 / 317.0) 26146 (441.0 / 337.0) 20193	(8.54 , 1.40) (N/A , -0.03 , -0.1)	124.1 120.1	0.7723 93.7 90.9	0.2967 [0.4000]	74.2%			
PFEESA	(315.0 / 135.0) 69135 (315.0 / 83.0) 25395	(6.53 , 1.07) (N/A , -0.01 , 0.1)	412.3 81.2	0.3673 120.4 123.7	0.1704 [0.1785]	95.4%			
PFMPA	(229.0 / 85.0) 16830	(4.13 , 0.84) (N/A , 0.01 , 0.0)	283.1	N/A 0.0 0.0	0.1881 [0.2000]	94.0%			
PFMBA	(279.0 / 85.0) 51094	(5.33 , 1.08) (N/A , 0.00 , 0.0)	441.1	N/A 0.0 0.0	0.2002 [0.2000]	100.1%			
NFDHA	(295.0 / 201.0) 48144 (295.0 / 85.0) 44810	(5.97 , 0.98) (N/A , -0.01 , 0.1)	369.3 235.2	0.9308 108.4 105.8	0.2219 [0.2000]	111.0%			
13C3_PFBA_IIS	(216.0 / 172.0) 210045	(3.65 , N/A) (N/A , 0.02 , N/A)	704.7	N/A	0.9754 [1.0000]	97.5% { 103.9% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 425747	(6.09 , N/A) (N/A , -0.01 , N/A)	452.6	N/A	1.1215 [1.0000]	112.2% { 109.2% }			
13C4_PFOA_IIS	(417.0 / 372.0) 397554	(7.83 , N/A) (N/A , -0.03 , N/A)	615.5	N/A	1.1014 [1.0000]	110.1% { 103.6% }			
13C5_PFNA_IIS	(468.0 / 423.0) 332016	(8.56 , N/A) (N/A , -0.03 , N/A)	406.8	N/A	1.1291 [1.0000]	112.9% { 113.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 430592	(9.25, N/A) (N/A, -0.02, N/A)	393.7	N/A	1.2640 [1.0000]	126.4% { 123.6% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 668050	(7.94, N/A) (N/A, -0.03, N/A)	781.1	N/A	1.1041 [1.0000]	110.4% { 105.5% }			
13C4_PFOS_IIS	(503.0 / 79.9) 716990	(9.39, N/A) (N/A, -0.02, N/A)	334.1	N/A	1.1119 [1.0000]	111.2% { 112.8% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1730914	(3.65, N/A) (N/A, 0.02, N/A)	874.5	N/A	8.2080 [8.0000]	102.6% { 111.3% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1290708	(4.94, N/A) (N/A, 0.01, N/A)	623.2	N/A	4.0184 [4.0000]	100.5% { 105.2% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 890840	(6.09, N/A) (N/A, -0.01, N/A)	605.1	N/A	2.0448 [2.0000]	102.2% { 110.7% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 769316	(7.01, N/A) (N/A, -0.02, N/A)	520.9	N/A	2.0327 [2.0000]	101.6% { 99.3% }			
13C8_PFOA_EIS	(421.0 / 376.0) 836851	(7.83, N/A) (N/A, -0.03, N/A)	570.3	N/A	2.0574 [2.0000]	102.9% { 113.6% }			
13C9_PFNA_EIS	(472.0 / 427.0) 328640	(8.57, N/A) (N/A, -0.03, N/A)	432.4	N/A	0.9526 [1.0000]	95.3% { 103.1% }			
13C6_PFDA_EIS	(519.0 / 474.0) 442394	(9.25, N/A) (N/A, -0.03, N/A)	538.0	N/A	0.8506 [1.0000]	85.1% { 115.8% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 530043	(9.69, N/A) (N/A, -0.02, N/A)	526.5	N/A	0.8287 [1.0000]	82.9% { 97.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 557360	(9.88 , N/A) (N/A , -0.01 , N/A)	627.1	N/A	0.8732 [1.0000]	87.3% { 96.3% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 327595	(10.11 , N/A) (N/A , -0.01 , N/A)	724.5	N/A	0.8100 [1.0000]	81.0% { 86.6% }			
13C3_PFBs_EIS	(302.0 / 80.0) 2052606	(6.03 , N/A) (N/A , -0.01 , N/A)	521.0	N/A	2.0301 [2.0000]	101.5% { 104.4% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1033692	(7.94 , N/A) (N/A , -0.03 , N/A)	669.8	N/A	1.8882 [2.0000]	94.4% { 104.5% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1569402	(9.39 , N/A) (N/A , -0.02 , N/A)	442.3	N/A	1.8163 [2.0000]	90.8% { 102.2% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 647092	(5.77 , N/A) (N/A , -0.01 , N/A)	716.3	N/A	5.6649 [4.0000]	141.6% { 130.1% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 706794	(7.50 , N/A) (N/A , -0.02 , N/A)	579.6	N/A	4.6765 [4.0000]	116.9% { 121.4% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 821185	(8.92 , N/A) (N/A , -0.02 , N/A)	421.3	N/A	4.3103 [4.0000]	107.8% { 131.7% }			
13C8_PFOA_EIS	(506.0 / 78.0) 1591070	(10.17 , N/A) (N/A , -0.01 , N/A)	754.9	N/A	1.5777 [2.0000]	78.9% { 83.6% }			
D3_NMeFOA_EIS	(515.0 / 169.0) 29044	(10.60 , N/A) (N/A , -0.01 , N/A)	230.1	N/A	0.1523 [2.0000]	7.6% { 7.8% }			S1,
D5_NEtFOA_EIS	(531.0 / 169.0) 28642	(10.69 , N/A) (N/A , -0.01 , N/A)	307.8	N/A	0.1640 [2.0000]	8.2% { 8.4% }			S1,

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 1061306	(9.46 , N/A) (N/A , -0.01 , N/A)	244.0	N/A	3.9039 [4.0000]	97.6% { 105.3% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 937570	(9.65 , N/A) (N/A , -0.02 , N/A)	102.2	N/A	4.3375 [4.0000]	108.4% { 104.9% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 485632	(10.57 , N/A) (N/A , -0.01 , N/A)	1148.2	N/A	11.6554 [20.0000]	58.3% { 48.8% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 226053	(10.67 , N/A) (N/A , -0.01 , N/A)	1043.5	N/A	11.7654 [20.0000]	58.8% { 48.1% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1884728	(6.43 , N/A) (N/A , -0.01 , N/A)	495.1	N/A	7.7331 [8.0000]	96.7% { 107.8% }			

ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	BBL0470-MS1
		File ID:	S2022-12-30A (20)
Sampled:		Prepared:	12/27/22 11:43
		Analyzed:	12/30/22 20:21
Solids:		Preparation:	EPA 1633
		Dilution:	1
Batch:	BBL0470	Sequence:	SB04022
		Calibration:	2253011
Column:	1	Instrument:	Saphira

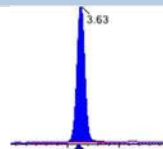
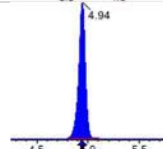
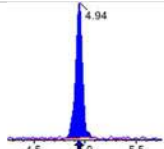
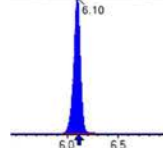
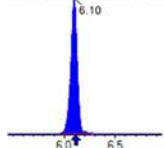
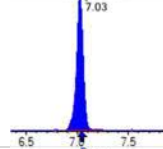
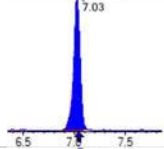
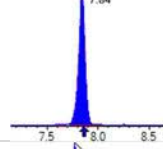
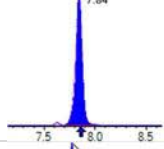
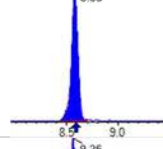
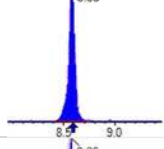
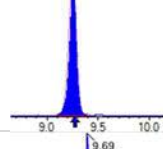
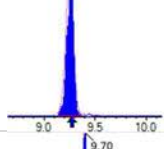
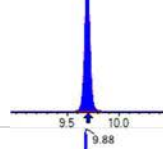
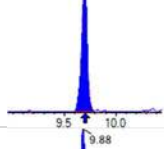
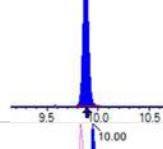
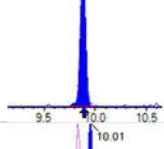
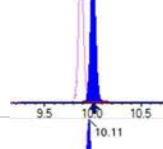
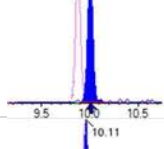
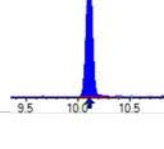
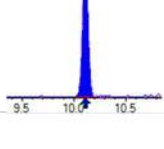
COMPOUND	CONC. (ug/kg Dry)	LOQ	DL	Q
PFBA	2.10	0.30	0.15	
PFPEA	2.04	0.080	0.022	
PFHXA	1.65	0.040	0.015	MS2
PFHPA	0.697	0.040	0.015	
PFOA	0.525	0.040	0.021	
PFNA	0.454	0.040	0.022	
PFDA	0.479	0.040	0.022	
PFUnA	0.470	0.040	0.020	
PFDOA	0.414	0.040	0.023	
PFTRDA	0.454	0.040	0.016	
PFTEDA	0.346	0.040	0.025	
PFBS	0.415	0.040	0.016	
PFPEs	0.453	0.040	0.012	
PFHXS	0.683	0.040	0.015	
PFHPS	0.375	0.040	0.011	
PFOS	1.23	0.040	0.0097	
PFNS	0.402	0.040	0.015	
PFDS	0.407	0.040	0.014	
PFDOS	0.413	0.040	0.013	
4:2FTS	1.86	0.16	0.045	
6:2FTS	13.8	0.16	0.061	MS2
8:2FTS	1.73	0.16	0.051	
PFOSA	0.400	0.040	0.012	
NMeFOSA	1.76	0.16	0.066	
NEtFOSA	1.72	0.16	0.027	
NMeFOSAA	0.375	0.040	0.010	
NEtFOSAA	0.416	0.040	0.018	
NMeFOSE	1.66	0.16	0.054	
NEtFOSE	2.03	0.16	0.047	
HFPO-DA	0.799	0.080	0.022	

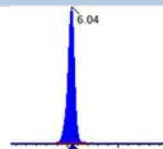
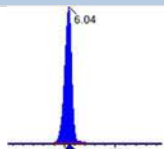
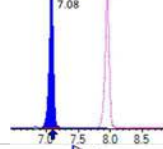
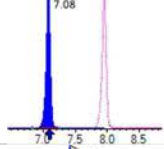
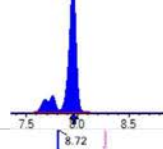
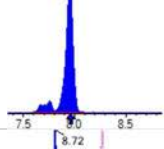
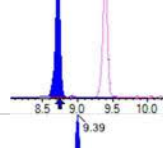
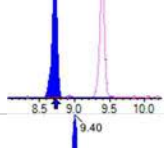
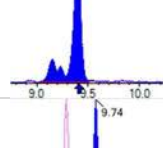
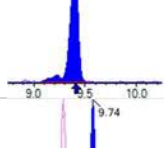
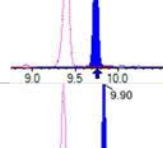
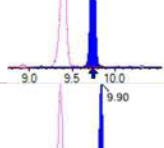
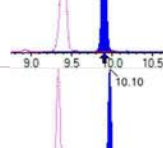
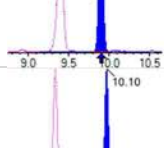
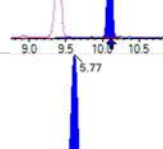
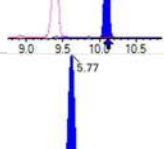
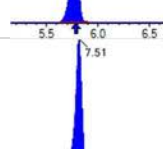
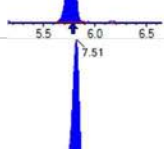
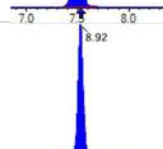
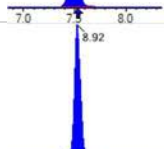

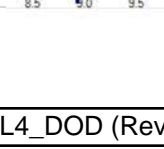
ANALYSIS DATA SHEET

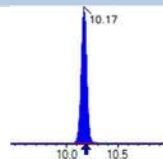
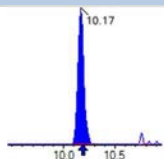
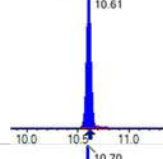
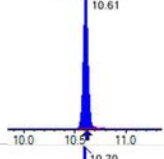
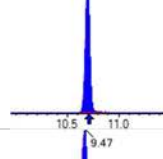
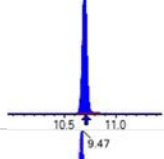
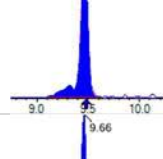
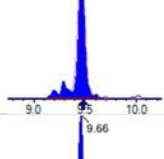
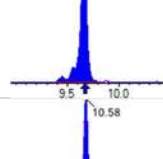
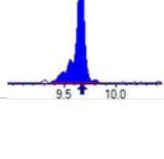
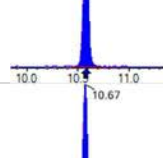
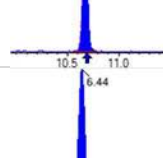
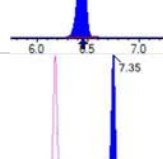
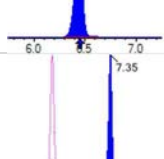
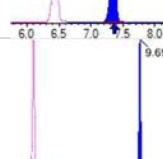
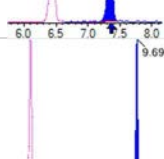
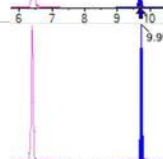
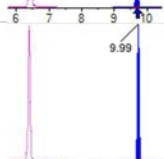

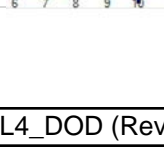
Matrix Spike

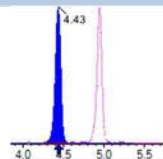
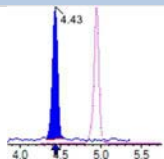
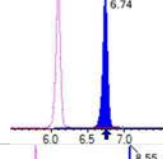
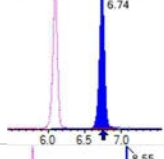
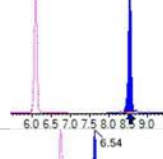
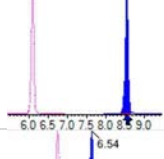
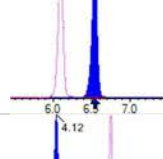
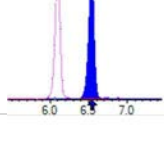
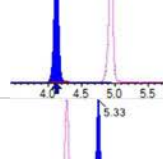
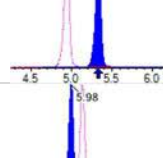
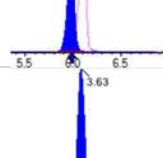
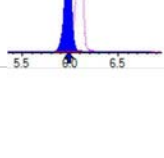
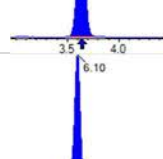
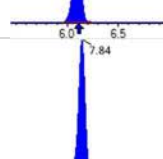
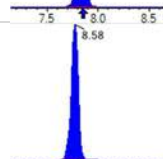

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Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	BBL0470-MS1
		File ID:	S2022-12-30A (20)
Sampled:		Prepared:	12/27/22 11:43
		Analyzed:	12/30/22 20:21
Solids:		Preparation:	EPA 1633
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Batch:	BBL0470	Sequence:	SB04022
		Calibration:	2253011
Column:	1	Instrument:	Saphira

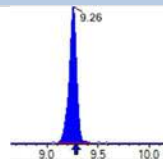
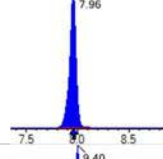
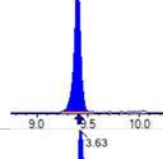
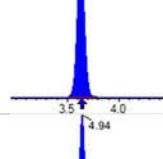
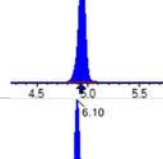
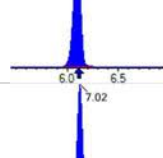
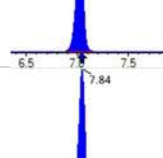
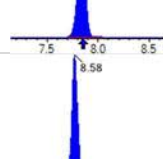
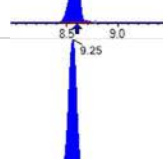
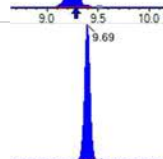

COMPOUND	CONC. (ug/kg Dry)	LOQ	DL	Q
ADONA	0.870	0.080	0.026	
PFEESA	0.800	0.080	0.017	
PFMPA	0.783	0.080	0.028	
PFMBA	0.851	0.080	0.032	
NFDHA	0.828	0.080	0.049	
9CL-PF3ONS	0.852	0.080	0.024	
11CL-PF3OUDS	0.878	0.080	0.027	
3:3FTCA	1.38	0.16	0.064	
5:3FTCA	1.76	0.16	0.065	
7:3FTCA	1.22	0.16	0.050	

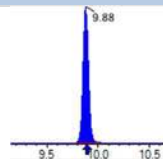
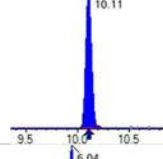
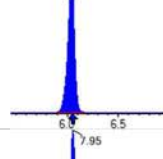
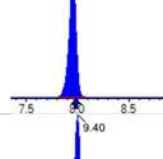
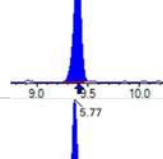
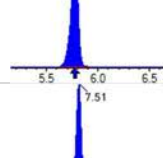
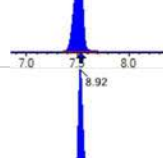
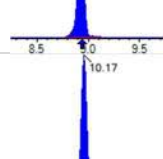
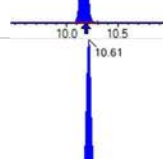
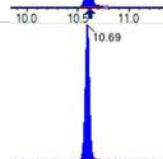
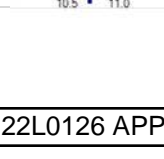
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 1034694	(3.63 , 1.00) (0.00 , N/A , 0.0)	444.3	N/A 0.0 0.0	5.2425 [4.0000]	131.1%			QC,
PFPeA	(263.0 / 219.0) 1511125 (263.0 / 69.0) 16078	(4.94 , 1.00) (0.00 , N/A , 0.1)	482.9 196.0	0.0106 103.0 99.4	5.1047 [2.0000]	255.2%			QC,
PFHxA	(313.0 / 269.0) 1668424 (313.0 / 119.0) 161008	(6.10 , 1.00) (0.00 , N/A , 0.1)	463.7 449.3	0.0965 99.2 105.5	4.1305 [1.0000]	413.0%			QC,
PFHpA	(363.0 / 319.0) 666000 (363.0 / 169.0) 189520	(7.03 , 1.00) (0.00 , N/A , 0.0)	488.6 494.3	0.2846 99.5 101.1	1.7431 [1.0000]	174.3%			QC,
PFOA	(413.0 / 369.0) 540231 (413.0 / 169.0) 155840	(7.84 , 1.00) (0.00 , N/A , 0.0)	402.1 347.8	0.2885 95.0 85.8	1.3135 [1.0000]	131.4%			QC,
PFNA	(463.0 / 419.0) 338124 (463.0 / 169.0) 76738	(8.58 , 1.00) (0.00 , N/A , -0.1)	455.0 413.3	0.2270 107.2 113.6	1.1359 [1.0000]	113.6%			
PFDA	(513.0 / 469.0) 500175 (513.0 / 169.0) 41936	(9.26 , 1.00) (0.01 , N/A , -0.3)	375.2 1040.6	0.0838 90.9 92.3	1.1986 [1.0000]	119.9%			
PFUnA	(563.0 / 519.0) 557759 (563.0 / 169.0) 52300	(9.69 , 1.00) (0.00 , N/A , -0.3)	467.5 184.0	0.0938 121.9 95.4	1.1760 [1.0000]	117.6%			
PFDoA	(613.0 / 569.0) 547167 (613.0 / 169.0) 70793	(9.88 , 1.00) (0.00 , N/A , -0.2)	498.7 230.3	0.1294 96.0 97.7	1.0342 [1.0000]	103.4%			
PFTTrDA	(663.0 / 619.0) 523893 (663.0 / 169.0) 71543	(10.00 , 1.01) (N/A , -0.01 , -0.2)	492.3 142.9	0.1366 62.7 70.0	1.1348 [1.0000]	113.5%			
PFTeDA	(713.0 / 669.0) 301989 (713.0 / 169.0) 73128	(10.11 , 1.00) (0.00 , N/A , 0.0)	390.1 291.8	0.2422 122.7 131.3	0.8649 [1.0000]	86.5%			

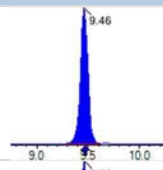

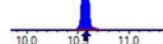


Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 643084 (299.0 / 99.0) 411941	(6.04 , 1.00) (0.00 , N/A , 0.0)	547.1 475.0	0.6406 97.5 105.6	1.0372 [0.8847]	117.2%			
PFPeS	(349.0 / 80.0) 1083331 (349.0 / 99.0) 395455	(7.08 , 0.89) (N/A , -0.01 , 0.1)	471.6 477.7	0.3650 98.5 107.1	1.1319 [0.9384]	120.6%			
PFHxS	(399.0 / 80.0) 1438647 (399.0 / 99.0) 427424	(7.95 , 1.00) (0.00 , N/A , 0.1)	679.3 726.8	0.2971 91.1 95.1	1.7067 [0.9110]	187.3%			QC,
PFHpS	(449.0 / 80.0) 749685 (449.0 / 99.0) 204324	(8.72 , 0.93) (N/A , -0.02 , 0.0)	488.4 564.1	0.2725 104.6 106.1	0.9385 [0.9514]	98.6%			
PFOS	(499.0 / 80.0) 2838099 (499.0 / 99.0) 729797	(9.39 , 1.00) (0.00 , N/A , -0.2)	224.5 561.3	0.2571 123.6 107.7	3.0872 [0.9275]	332.9%			QC,
PFNS	(549.0 / 80.0) 1047047 (549.0 / 99.0) 249440	(9.74 , 1.04) (N/A , -0.01 , -0.1)	422.0 439.3	0.2382 100.1 88.0	1.0047 [0.9599]	104.7%			
PFDS	(599.0 / 80.0) 1283505 (599.0 / 99.0) 302177	(9.90 , 1.05) (N/A , -0.01 , -0.1)	432.7 426.8	0.2354 89.5 100.4	1.0186 [0.9631]	105.8%			
PFDoS	(699.0 / 80.0) 612213 (699.0 / 99.0) 164375	(10.10 , 1.07) (N/A , -0.01 , 0.1)	541.6 519.4	0.2685 136.9 118.7	1.0318 [0.9696]	106.4%			
4:2FTS	(327.0 / 307.0) 2352950 (327.0 / 81.0) 1397475	(5.77 , 1.00) (0.00 , N/A , -0.1)	727.2 475.2	0.5939 83.0 107.4	4.6522 [3.7381]	124.5%			
6:2FTS	(427.0 / 407.0) 9313418 (427.0 / 81.0) 7264764	(7.51 , 1.00) (0.00 , N/A , -0.1)	537.2 684.0	0.7800 105.5 93.8	34.4680 [3.7962]	908.0%			QC,
8:2FTS	(527.0 / 507.0) 926218 (527.0 / 81.0) 530697	(8.92 , 1.00) (0.00 , N/A , 0.1)	413.3 336.5	0.5730 93.7 77.4	4.3349 [3.8332]	113.1%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (Δ RT-[min], Δ RT- CV[min], Δ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 922240 (498.0 / 478.0) 20451	(10.17 , 1.00) (0.00 , N/A , 0.1)	1067.0 279.4	0.0222 106.2 113.9	1.0009 [1.0000]	100.1%			
NMeFOSA	(512.0 / 219.0) 392226 (512.0 / 169.0) 279120	(10.61 , 1.00) (0.00 , N/A , 0.0)	957.8 808.3	0.7116 102.8 100.8	4.4121 [4.0000]	110.3%			
NEIFOSA	(526.0 / 219.0) 410174 (526.0 / 169.0) 440808	(10.70 , 1.00) (0.00 , N/A , 0.0)	778.8 860.8	1.0747 108.3 98.1	4.3032 [4.0000]	107.6%			
NMeFOSAA	(570.0 / 419.0) 207245 (570.0 / 483.0) 110533	(9.47 , 1.00) (0.00 , N/A , 0.0)	210.7 297.1	0.5333 95.8 107.4	0.9375 [1.0000]	93.7%			
NEIFOSAA	(584.0 / 419.0) 214639 (584.0 / 526.0) 133243	(9.66 , 1.00) (0.00 , N/A , 0.0)	549.2 332.8	0.6208 104.6 105.4	1.0407 [1.0000]	104.1%			
NMeFOSE	(616.0 / 59.0) 156223	(10.58 , 1.00) (0.01 , N/A , 0.0)	420.9	N/A 0.0 0.0	4.1602 [4.0000]	104.0%			
NEIFOSE	(630.0 / 59.0) 41530	(10.67 , 1.00) (0.01 , N/A , 0.0)	522.3	N/A 0.0 0.0	5.0803 [4.0000]	127.0%			
HFPO-DA	(285.0 / 169.0) 321602 (285.0 / 185.0) 845081	(6.44 , 1.00) (0.00 , N/A , 0.1)	635.0 508.9	2.6277 102.5 97.9	1.9974 [2.0000]	99.9%			
ADONA	(377.0 / 85.0) 1395353 (377.0 / 251.0) 168004	(7.35 , 1.14) (N/A , -0.01 , -0.1)	578.9 300.5	0.1204 97.9 101.5	2.1747 [1.8854]	115.3%			
9CI-PF3ONS	(531.0 / 351.0) 3733159 (533.0 / 353.0) 1153689	(9.69 , 1.50) (N/A , -0.01 , 0.0)	629.9 477.7	0.3090 97.8 93.9	2.1303 [1.8665]	114.1%			
11CI-PF3OUDS	(631.0 / 451.0) 2178053 (633.0 / 453.0) 690024	(9.99 , 1.55) (N/A , -0.01 , 0.0)	911.6 608.3	0.3168 102.3 95.5	2.1961 [1.8864]	116.4%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 35038 (241.0 / 117.0) 46848	(4.43 , 0.90) (N/A , 0.01 , 0.0)	361.4 171.9	1.3371 101.7 102.2	3.4436 [4.0000]	86.1%			
5:3FTCA	(341.0 / 236.7) 271801 (341.0 / 217.0) 402060	(6.74 , 1.11) (N/A , -0.01 , 0.2)	489.2 531.7	1.4792 82.4 95.8	4.3963 [4.0000]	109.9%			
7:3FTCA	(441.0 / 317.0) 245949 (441.0 / 337.0) 201472	(8.55 , 1.40) (N/A , -0.01 , 0.0)	264.4 451.9	0.8192 99.3 96.4	3.0538 [4.0000]	76.3%			
PFEESA	(315.0 / 135.0) 741426 (315.0 / 83.0) 220972	(6.54 , 1.07) (N/A , -0.01 , 0.0)	675.9 476.3	0.2980 97.7 100.3	1.9992 [1.7849]	112.0%			
PFMPA	(229.0 / 85.0) 169329	(4.12 , 0.83) (N/A , 0.00 , 0.0)	878.7	N/A 0.0 0.0	1.9586 [2.0000]	97.9%			
PFMBA	(279.0 / 85.0) 524697	(5.33 , 1.08) (N/A , 0.00 , 0.0)	709.7	N/A 0.0 0.0	2.1282 [2.0000]	106.4%			
NFDHA	(295.0 / 201.0) 410632 (295.0 / 85.0) 369562	(5.98 , 0.98) (N/A , 0.00 , 0.0)	651.0 612.2	0.9000 104.8 102.3	2.0711 [2.0000]	103.6%			
13C3_PFBA_IIS	(216.0 / 172.0) 209837	(3.63 , N/A) (N/A , 0.00 , N/A)	542.1	N/A	0.9744 [1.0000]	97.4% { 103.8% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 440695	(6.10 , N/A) (N/A , 0.00 , N/A)	609.8	N/A	1.1609 [1.0000]	116.1% { 113.0% }			
13C4_PFOA_IIS	(417.0 / 372.0) 379917	(7.84 , N/A) (N/A , -0.02 , N/A)	639.6	N/A	1.0525 [1.0000]	105.2% { 99.0% }			
13C5_PFNA_IIS	(468.0 / 423.0) 307196	(8.58 , N/A) (N/A , -0.02 , N/A)	369.5	N/A	1.0447 [1.0000]	104.5% { 105.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 343964	(9.26, N/A) (N/A, -0.01, N/A)	329.5	N/A	1.0097 [1.0000]	101.0% { 98.7% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 656115	(7.96, N/A) (N/A, -0.01, N/A)	593.1	N/A	1.0843 [1.0000]	108.4% { 103.6% }			
13C4_PFOS_IIS	(503.0 / 79.9) 645836	(9.40, N/A) (N/A, -0.01, N/A)	312.9	N/A	1.0016 [1.0000]	100.2% { 101.6% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1689925	(3.63, N/A) (N/A, 0.00, N/A)	747.2	N/A	8.0216 [8.0000]	100.3% { 108.7% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1247030	(4.94, N/A) (N/A, 0.01, N/A)	630.5	N/A	3.7507 [4.0000]	93.8% { 101.7% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 814102	(6.10, N/A) (N/A, -0.01, N/A)	509.6	N/A	1.8052 [2.0000]	90.3% { 101.2% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 729241	(7.02, N/A) (N/A, -0.01, N/A)	538.7	N/A	1.8615 [2.0000]	93.1% { 94.1% }			
13C8_PFOA_EIS	(421.0 / 376.0) 772156	(7.84, N/A) (N/A, -0.01, N/A)	488.9	N/A	1.9865 [2.0000]	99.3% { 104.9% }			
13C9_PFNA_EIS	(472.0 / 427.0) 308419	(8.58, N/A) (N/A, -0.02, N/A)	394.6	N/A	0.9663 [1.0000]	96.6% { 96.7% }			
13C6_PFDA_EIS	(519.0 / 474.0) 420797	(9.25, N/A) (N/A, -0.02, N/A)	291.6	N/A	1.0128 [1.0000]	101.3% { 110.1% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 519688	(9.69, N/A) (N/A, -0.01, N/A)	444.9	N/A	1.0171 [1.0000]	101.7% { 95.8% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 552076	(9.88 , N/A) (N/A , -0.01 , N/A)	653.5	N/A	1.0827 [1.0000]	108.3% { 95.4% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 345173	(10.11 , N/A) (N/A , -0.01 , N/A)	774.3	N/A	1.0684 [1.0000]	106.8% { 91.3% }			
13C3_PFBs_EIS	(302.0 / 80.0) 1943720	(6.04 , N/A) (N/A , 0.00 , N/A)	619.4	N/A	1.9574 [2.0000]	97.9% { 98.8% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 973334	(7.95 , N/A) (N/A , -0.02 , N/A)	727.7	N/A	1.8102 [2.0000]	90.5% { 98.4% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1578976	(9.40 , N/A) (N/A , -0.01 , N/A)	281.5	N/A	2.0288 [2.0000]	101.4% { 102.8% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 594943	(5.77 , N/A) (N/A , 0.00 , N/A)	633.0	N/A	5.3031 [4.0000]	132.6% { 119.6% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 673189	(7.51 , N/A) (N/A , -0.02 , N/A)	597.2	N/A	4.5351 [4.0000]	113.4% { 115.6% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 547902	(8.92 , N/A) (N/A , -0.01 , N/A)	412.9	N/A	2.9282 [4.0000]	73.2% { 87.9% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 1588997	(10.17 , N/A) (N/A , -0.01 , N/A)	915.4	N/A	1.7492 [2.0000]	87.5% { 83.5% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 183030	(10.61 , N/A) (N/A , -0.01 , N/A)	711.2	N/A	1.0655 [2.0000]	53.3% { 49.3% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 192192	(10.69 , N/A) (N/A , -0.01 , N/A)	685.6	N/A	1.2215 [2.0000]	61.1% { 56.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 974473	(9.46 , N/A) (N/A , -0.01 , N/A)	366.6	N/A	3.9794 [4.0000]	99.5% { 96.7% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 836834	(9.66 , N/A) (N/A , -0.01 , N/A)	117.5	N/A	4.2980 [4.0000]	107.4% { 93.6% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 615138	(10.57 , N/A) (N/A , -0.01 , N/A)	1288.5	N/A	16.3901 [20.0000]	82.0% { 61.8% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 306063	(10.67 , N/A) (N/A , -0.01 , N/A)	1323.4	N/A	17.6847 [20.0000]	88.4% { 65.1% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1855586	(6.44 , N/A) (N/A , -0.01 , N/A)	637.7	N/A	7.3553 [8.0000]	91.9% { 106.2% }			

ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	BBL0470-MSD1
		File ID:	S2022-12-30A (21)
Sampled:		Prepared:	12/27/22 11:43
		Analyzed:	12/30/22 20:34
Solids:		Preparation:	EPA 1633
		Dilution:	1
Batch:	BBL0470	Sequence:	SB04022
		Calibration:	2253011
		Instrument:	Saphira
Column:	1		

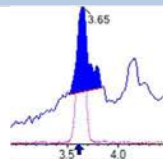
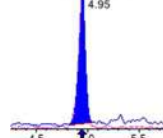
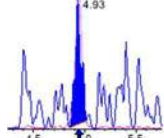
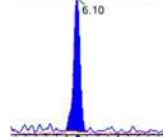
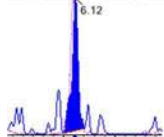
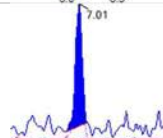
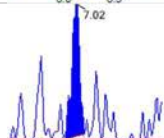
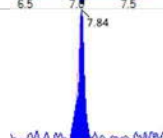
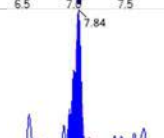
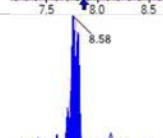
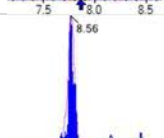
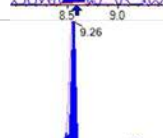
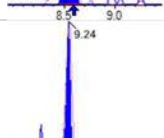
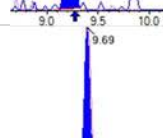
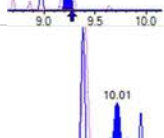
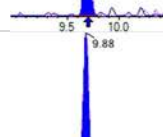
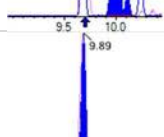
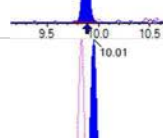
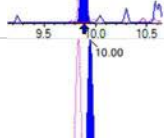
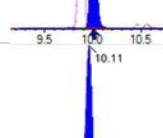
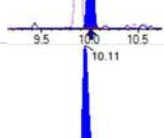
COMPOUND	CONC. (ug/kg Dry)	LOQ	DL	Q
PFBA	2.60	0.29	0.15	
PFPEA	1.76	0.078	0.021	
PFHXA	1.66	0.039	0.015	MS2
PFHPA	0.702	0.039	0.015	
PFOA	0.603	0.039	0.021	
PFNA	0.451	0.039	0.021	
PFDA	0.410	0.039	0.021	
PFUnA	0.453	0.039	0.020	
PFDOA	0.498	0.039	0.022	
PFTRDA	1.22	0.039	0.016	MS2, MS3
PFTEDA	0.485	0.039	0.024	MS3
PFBS	0.368	0.039	0.016	
PFPEs	0.342	0.039	0.011	
PFHXS	0.490	0.039	0.015	MS3
PFHPS	0.279	0.039	0.010	
PFOS	1.42	0.039	0.0095	MS2
PFNS	0.750	0.039	0.014	MS2, MS3
PFDS	1.42	0.039	0.013	MS2, MS3
PFDOS	5.33	0.039	0.013	MS2, MS3
4:2FTS	1.84	0.16	0.044	
6:2FTS	16.9	0.16	0.059	MS2
8:2FTS	1.06	0.16	0.050	MS3
PFOSA	0.422	0.039	0.012	
NMeFOSA	1.49	0.16	0.064	
NEtFOSA	1.77	0.16	0.026	
NMeFOSAA	0.501	0.039	0.0098	
NEtFOSAA	0.264	0.039	0.017	MS3
NMeFOSE	1.88	0.16	0.052	
NEtFOSE	2.02	0.16	0.046	
HFPO-DA	0.859	0.078	0.021	

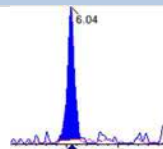
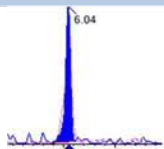
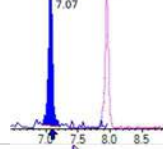
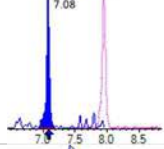
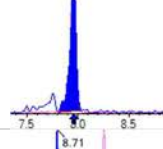
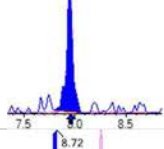
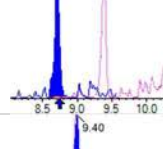
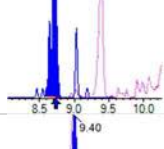
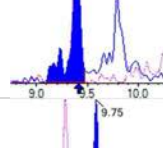
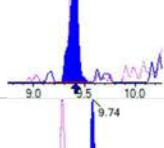
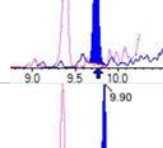
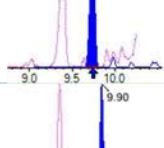
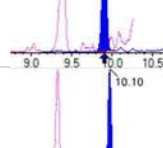
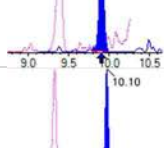
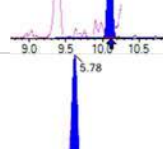
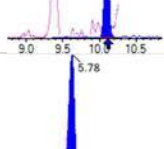
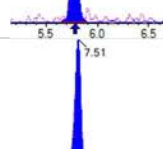
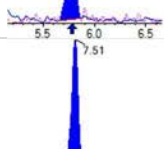
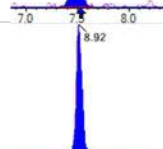
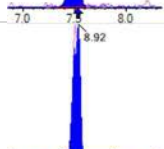

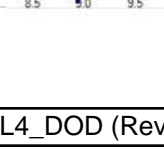
ANALYSIS DATA SHEET

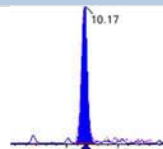
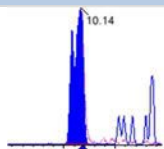
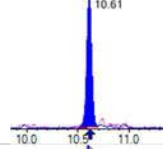
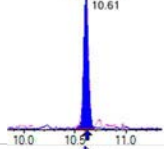
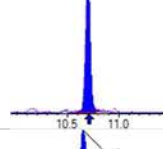
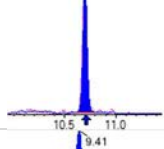
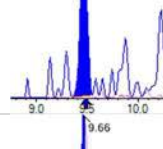
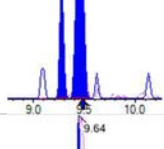
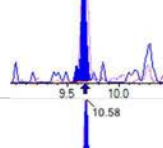
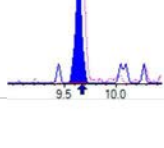
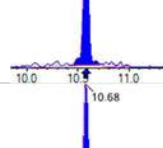
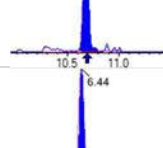
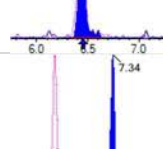
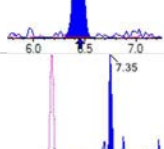
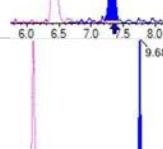
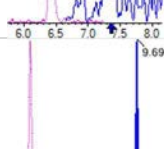
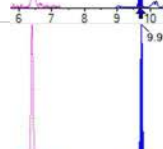
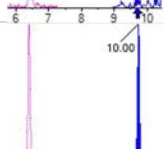

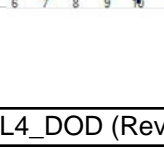
Matrix Spike Dup

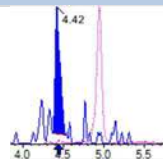
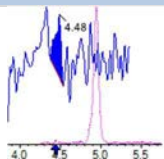
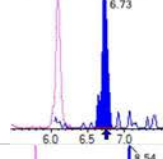
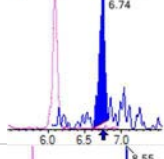
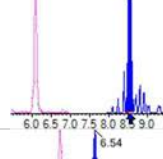
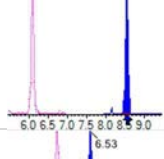
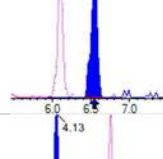
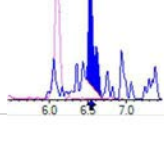
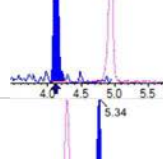
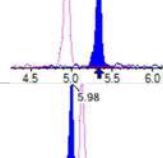
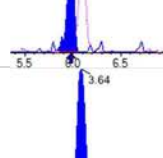
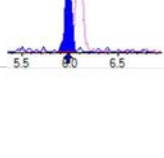
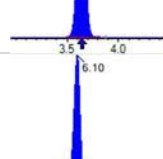
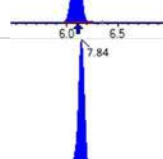
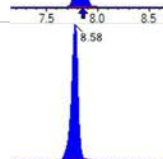

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	BBL0470-MSD1
		File ID:	S2022-12-30A (21)
Sampled:		Prepared:	12/27/22 11:43
		Analyzed:	12/30/22 20:34
Solids:		Preparation:	EPA 1633
		Dilution:	1
Batch:	BBL0470	Sequence:	SB04022
		Calibration:	2253011
Column:	1	Instrument:	Saphira

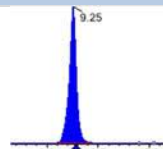
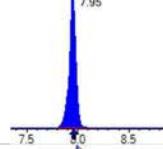
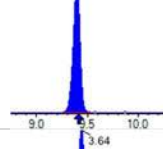
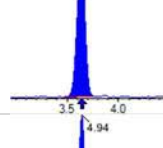
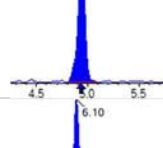
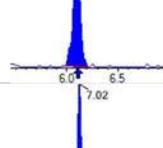
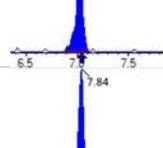
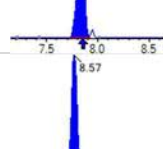
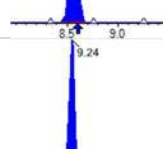
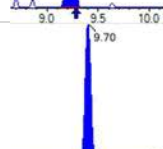

COMPOUND	CONC. (ug/kg Dry)	LOQ	DL	Q
ADONA	0.728	0.078	0.026	
PFEESA	0.687	0.078	0.017	
PFMPA	0.673	0.078	0.027	
PFMBA	0.810	0.078	0.032	
NFDHA	0.585	0.078	0.048	MS3
9CL-PF3ONS	1.68	0.078	0.023	MS2, MS3
11CL-PF3OUDS	5.03	0.078	0.026	MS2, MS3
3:3FTCA	0.966	0.16	0.062	MS3
5:3FTCA	2.10	0.16	0.063	
7:3FTCA	1.70	0.16	0.048	MS3

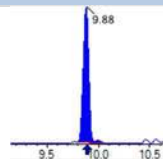
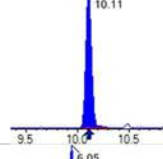
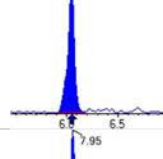
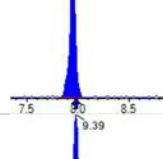
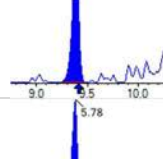
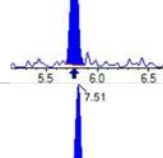
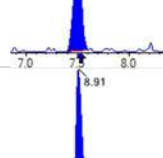
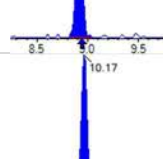
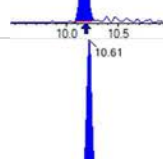
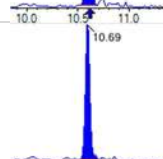
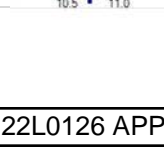
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 19693	(3.65 , 1.00) (0.01 , N/A , 0.0)	34.2	N/A 0.0 0.0	6.6815 [4.0000]	167.0%			QC,
PFPeA	(263.0 / 219.0) 19973 (263.0 / 69.0) 429	(4.95 , 1.00) (0.01 , N/A , 1.0)	116.2 11.1	0.0215 207.9 200.7	4.5164 [2.0000]	225.8%			QC,
PFHxA	(313.0 / 269.0) 28474 (313.0 / 119.0) 3266	(6.10 , 1.00) (0.00 , N/A , -0.9)	75.7 27.1	0.1147 117.9 125.4	4.2647 [1.0000]	426.5%			QC,
PFHpA	(363.0 / 319.0) 12321 (363.0 / 169.0) 3731	(7.01 , 1.00) (-0.01 , N/A , -0.1)	34.5 12.8	0.3028 105.8 107.6	1.8016 [1.0000]	180.2%			QC,
PFOA	(413.0 / 369.0) 12896 (413.0 / 169.0) 3725	(7.84 , 1.00) (0.01 , N/A , 0.2)	46.8 41.4	0.2888 95.1 85.9	1.5479 [1.0000]	154.8%			QC,
PFNA	(463.0 / 419.0) 8712 (463.0 / 169.0) 2598	(8.58 , 1.00) (0.01 , N/A , 0.8)	32.8 59.0	0.2982 140.8 149.2	1.1577 [1.0000]	115.8%			
PFDA	(513.0 / 469.0) 17536 (513.0 / 169.0) 1320	(9.26 , 1.00) (0.01 , N/A , 1.2)	49.1 10070.6	0.0753 81.7 82.8	1.0517 [1.0000]	105.2%			
PFUnA	(563.0 / 519.0) 40606 (563.0 / 169.0) 1982	(9.69 , 1.00) (-0.01 , N/A , -19.3)	100.7 13.8	0.0488 63.5 49.7	1.1616 [1.0000]	116.2%			IR1,
PFDaA	(613.0 / 569.0) 64251 (613.0 / 169.0) 7513	(9.88 , 1.00) (0.00 , N/A , -0.5)	229.0 72.0	0.1169 86.8 88.3	1.2780 [1.0000]	127.8%			
PFTTrDA	(663.0 / 619.0) 137148 (663.0 / 169.0) 25039	(10.01 , 1.01) (N/A , -0.01 , 0.3)	364.0 146.4	0.1826 83.8 93.6	3.1265 [1.0000]	312.7%			QC,
PFTeDA	(713.0 / 669.0) 140218 (713.0 / 169.0) 25912	(10.11 , 1.00) (0.00 , N/A , 0.4)	417.9 88.7	0.1848 93.6 100.2	1.2453 [1.0000]	124.5%			

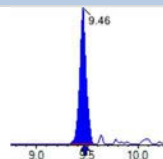
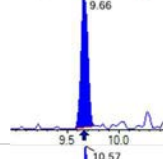
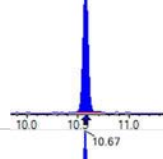
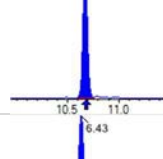
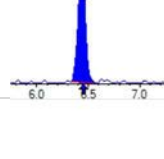
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 9141 (299.0 / 99.0) 9294	(6.04, 1.00) (-0.01, N/A, -0.2)	53.2 72.7	1.0167 154.7 167.6	0.9429 [0.8847]	106.6%			IR2,
PFPeS	(349.0 / 80.0) 18238 (349.0 / 99.0) 6204	(7.07, 0.89) (N/A, -0.02, -0.3)	82.5 60.2	0.3402 91.8 99.8	0.8779 [0.9384]	93.6%			
PFHxS	(399.0 / 80.0) 23000 (399.0 / 99.0) 7681	(7.96, 1.00) (0.01, N/A, 0.6)	152.2 72.3	0.3340 102.4 106.9	1.2570 [0.9110]	138.0%			QC,
PFHpS	(449.0 / 80.0) 15423 (449.0 / 99.0) 4611	(8.71, 0.93) (N/A, -0.02, -0.3)	52.6 41.5	0.2990 114.7 116.3	0.7146 [0.9514]	75.1%			
PFOS	(499.0 / 80.0) 90625 (499.0 / 99.0) 18352	(9.40, 1.00) (0.01, N/A, -0.4)	106.0 126.7	0.2025 97.3 84.8	3.6483 [0.9275]	393.3%			QC,
PFNS	(549.0 / 80.0) 54137 (549.0 / 99.0) 13245	(9.75, 1.04) (N/A, 0.00, 0.5)	55.8 94.5	0.2447 102.8 90.4	1.9226 [0.9599]	200.3%			QC,
PFDS	(599.0 / 80.0) 124249 (599.0 / 99.0) 21683	(9.90, 1.05) (N/A, 0.00, -0.2)	216.2 91.7	0.1745 66.3 74.4	3.6494 [0.9631]	378.9%			QC,
PFDoS	(699.0 / 80.0) 219272 (699.0 / 99.0) 72498	(10.10, 1.08) (N/A, -0.01, -0.1)	434.3 238.7	0.3306 168.6 146.2	13.6761 [0.9696]	1410.5%			QC,IR2,
4:2FTS	(327.0 / 307.0) 36115 (327.0 / 81.0) 23188	(5.78, 1.00) (0.00, N/A, -0.1)	373.4 97.9	0.6421 89.7 116.1	4.7220 [3.7381]	126.3%			
6:2FTS	(427.0 / 407.0) 224394 (427.0 / 81.0) 140044	(7.51, 1.00) (0.00, N/A, -0.1)	508.4 334.0	0.6241 84.4 75.1	43.2439 [3.7962]	1139.1%			QC,
8:2FTS	(527.0 / 507.0) 28444 (527.0 / 81.0) 23247	(8.92, 1.00) (0.00, N/A, -0.5)	244.1 98.3	0.8173 133.6 110.5	2.7212 [3.8332]	71.0%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 31365 (498.0 / 478.0) 3596	(10.17 , 1.00) (0.00 , N/A , 1.8)	105.1 18.8	0.1147 549.3 588.9	1.0834 [1.0000]	108.3%			
NMeFOSA	(512.0 / 219.0) 26040 (512.0 / 169.0) 18935	(10.61 , 1.00) (0.00 , N/A , 0.2)	172.9 262.0	0.7272 105.1 103.0	3.8340 [4.0000]	95.8%			
NEIFOSA	(526.0 / 219.0) 33699 (526.0 / 169.0) 40063	(10.70 , 1.00) (0.00 , N/A , 0.0)	432.7 301.5	1.1889 119.8 108.6	4.5506 [4.0000]	113.8%			
NMeFOSAA	(570.0 / 419.0) 9553 (570.0 / 483.0) 5732	(9.46 , 1.00) (0.01 , N/A , 2.8)	21.0 542.7	0.6001 107.8 120.8	1.2858 [1.0000]	128.6%			
NEIFOSAA	(584.0 / 419.0) 5771 (584.0 / 526.0) 3487	(9.66 , 1.00) (-0.01 , N/A , 1.2)	46.7 1673.1	0.6042 101.9 102.6	0.6765 [1.0000]	67.6%			QC,
NMeFOSE	(616.0 / 59.0) 29236	(10.58 , 1.00) (0.01 , N/A , 0.0)	132.0	N/A 0.0 0.0	4.8153 [4.0000]	120.4%			
NEIFOSE	(630.0 / 59.0) 8057	(10.68 , 1.00) (0.01 , N/A , 0.0)	113.1	N/A 0.0 0.0	5.1875 [4.0000]	129.7%			
HFPO-DA	(285.0 / 169.0) 5051 (285.0 / 185.0) 12443	(6.44 , 1.00) (0.00 , N/A , -0.1)	134.5 73.6	2.4635 96.1 91.8	2.2028 [2.0000]	110.1%			
ADONA	(377.0 / 85.0) 17071 (377.0 / 251.0) 2336	(7.34 , 1.14) (N/A , -0.02 , -0.5)	126.8 14.7	0.1368 111.2 115.4	1.8682 [1.8854]	99.1%			
9CI-PF3ONS	(531.0 / 351.0) 107470 (533.0 / 353.0) 33958	(9.68 , 1.51) (N/A , -0.01 , -0.2)	183.5 77.7	0.3160 100.0 96.0	4.3063 [1.8665]	230.7%			QC,
11CI-PF3OUDS	(631.0 / 451.0) 182088 (633.0 / 453.0) 56778	(9.99 , 1.55) (N/A , 0.00 , -0.2)	452.7 350.4	0.3118 100.7 94.0	12.8916 [1.8864]	683.4%			QC,

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 377 (241.0 / 117.0) 1145	(4.42 , 0.89) (N/A , 0.00 , -3.7)	27.1 7.3	3.0401 231.1 232.4	2.4780 [4.0000]	62.0%			QC,IR2,
5:3FTCA	(341.0 / 236.7) 5503 (341.0 / 217.0) 6881	(6.73 , 1.10) (N/A , -0.01 , -0.4)	43.0 23.3	1.2503 69.7 80.9	5.3851 [4.0000]	134.6%			QC,
7:3FTCA	(441.0 / 317.0) 5807 (441.0 / 337.0) 5280	(8.54 , 1.40) (N/A , -0.02 , -0.4)	31.8 598.4	0.9094 110.3 107.0	4.3620 [4.0000]	109.0%			
PFEESA	(315.0 / 135.0) 10806 (315.0 / 83.0) 3454	(6.54 , 1.07) (N/A , 0.00 , 1.0)	111.5 17.2	0.3196 104.8 107.6	1.7627 [1.7849]	98.8%			
PFMPA	(229.0 / 85.0) 2230	(4.13 , 0.83) (N/A , 0.00 , 0.0)	72.2	N/A 0.0 0.0	1.7266 [2.0000]	86.3%			
PFMBA	(279.0 / 85.0) 7654	(5.34 , 1.08) (N/A , 0.01 , 0.0)	147.3	N/A 0.0 0.0	2.0780 [2.0000]	103.9%			
NFDHA	(295.0 / 201.0) 4917 (295.0 / 85.0) 5774	(5.98 , 0.98) (N/A , 0.00 , 0.3)	79.4 107.5	1.1743 136.7 133.5	1.5005 [2.0000]	75.0%			
13C3_PFBA_IIS	(216.0 / 172.0) 182980	(3.64 , N/A) (N/A , 0.00 , N/A)	735.9	N/A	0.8497 [1.0000]	85.0% { 90.5% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 397506	(6.10 , N/A) (N/A , 0.00 , N/A)	531.2	N/A	1.0471 [1.0000]	104.7% { 102.0% }			
13C4_PFOA_IIS	(417.0 / 372.0) 377618	(7.84 , N/A) (N/A , -0.02 , N/A)	582.4	N/A	1.0461 [1.0000]	104.6% { 98.4% }			
13C5_PFNA_IIS	(468.0 / 423.0) 348111	(8.58 , N/A) (N/A , -0.02 , N/A)	467.3	N/A	1.1838 [1.0000]	118.4% { 119.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 375397	(9.25 , N/A) (N/A , -0.02 , N/A)	366.9	N/A	1.1020 [1.0000]	110.2% { 107.8% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 640491	(7.95 , N/A) (N/A , -0.02 , N/A)	701.7	N/A	1.0585 [1.0000]	105.9% { 101.2% }			
13C4_PFOS_IIS	(503.0 / 79.9) 687050	(9.40 , N/A) (N/A , -0.02 , N/A)	469.6	N/A	1.0655 [1.0000]	106.6% { 108.1% }			
13C4_PFBA_EIS	(217.0 / 172.0) 25237	(3.64 , N/A) (N/A , 0.00 , N/A)	334.8	N/A	0.1374 [8.0000]	1.7% { 1.6% }			S1,
13C5_PFPeA_EIS	(268.0 / 223.0) 18630	(4.94 , N/A) (N/A , 0.01 , N/A)	223.0	N/A	0.0621 [4.0000]	1.6% { 1.5% }			S1,
13C5_PFHxA_EIS	(318.0 / 273.0) 13457	(6.10 , N/A) (N/A , -0.01 , N/A)	175.3	N/A	0.0331 [2.0000]	1.7% { 1.7% }			S1,
13C4_PFHpA_EIS	(367.0 / 322.0) 13053	(7.02 , N/A) (N/A , -0.02 , N/A)	166.3	N/A	0.0369 [2.0000]	1.8% { 1.7% }			S1,
13C8_PFOA_EIS	(421.0 / 376.0) 15642	(7.84 , N/A) (N/A , -0.02 , N/A)	291.3	N/A	0.0405 [2.0000]	2.0% { 2.1% }			S1,
13C9_PFNA_EIS	(472.0 / 427.0) 7797	(8.57 , N/A) (N/A , -0.02 , N/A)	174.7	N/A	0.0216 [1.0000]	2.2% { 2.4% }			S1,
13C6_PFDA_EIS	(519.0 / 474.0) 16814	(9.24 , N/A) (N/A , -0.03 , N/A)	139.7	N/A	0.0371 [1.0000]	3.7% { 4.4% }			S1,
13C7_PFUnA_EIS	(570.0 / 525.0) 38304	(9.70 , N/A) (N/A , -0.01 , N/A)	144.9	N/A	0.0687 [1.0000]	6.9% { 7.1% }			S1,

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 52458	(9.88 , N/A) (N/A , -0.01 , N/A)	140.9	N/A	0.0943 [1.0000]	9.4% { 9.1% }			S1,
13C2_PFTeDA_EIS	(715.0 / 670.0) 111313	(10.11 , N/A) (N/A , -0.01 , N/A)	1615.4	N/A	0.3157 [1.0000]	31.6% { 29.4% }			
13C3_PFBs_EIS	(302.0 / 80.0) 30391	(6.05 , N/A) (N/A , 0.00 , N/A)	129.2	N/A	0.0314 [2.0000]	1.6% { 1.5% }			S1,
13C3_PFHxS_EIS	(402.0 / 80.0) 21129	(7.95 , N/A) (N/A , -0.02 , N/A)	251.0	N/A	0.0403 [2.0000]	2.0% { 2.1% }			S1,
13C8_PFOS_EIS	(507.0 / 80.0) 42665	(9.39 , N/A) (N/A , -0.02 , N/A)	47.1	N/A	0.0515 [2.0000]	2.6% { 2.8% }			S1,
13C2_4:2FTS_EIS	(329.0 / 81.0) 8997	(5.78 , N/A) (N/A , 0.00 , N/A)	71.0	N/A	0.0821 [4.0000]	2.1% { 1.8% }			S1,
13C2_6:2FTS_EIS	(429.0 / 81.0) 12928	(7.51 , N/A) (N/A , -0.02 , N/A)	123.3	N/A	0.0892 [4.0000]	2.2% { 2.2% }			S1,
13C2_8:2FTS_EIS	(529.0 / 81.0) 26804	(8.91 , N/A) (N/A , -0.02 , N/A)	178.6	N/A	0.1467 [4.0000]	3.7% { 4.3% }			S1,
13C8_PFOsa_EIS	(506.0 / 78.0) 49925	(10.17 , N/A) (N/A , -0.01 , N/A)	108.2	N/A	0.0517 [2.0000]	2.6% { 2.6% }			S1,
D3_NMeFOsa_EIS	(515.0 / 169.0) 13984	(10.61 , N/A) (N/A , -0.01 , N/A)	124.0	N/A	0.0765 [2.0000]	3.8% { 3.8% }			S1,
D5_NEtFOsa_EIS	(531.0 / 169.0) 14932	(10.69 , N/A) (N/A , -0.01 , N/A)	161.9	N/A	0.0892 [2.0000]	4.5% { 4.4% }			S1,

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 32748	(9.46 , N/A) (N/A , -0.02 , N/A)	92.2	N/A	0.1257 [4.0000]	3.1% { 3.2% }			S1,
D5_EtFOSAA_EIS	(589.0 / 419.0) 34617	(9.66 , N/A) (N/A , 0.00 , N/A)	41.1	N/A	0.1671 [4.0000]	4.2% { 3.9% }			S1,
D7_NMeFOSE_EIS	(623.0 / 58.9) 99456	(10.57 , N/A) (N/A , -0.01 , N/A)	303.1	N/A	2.4910 [20.0000]	12.5% { 10.0% }			S1,
D9_NEtFOSE_EIS	(639.0 / 58.9) 58127	(10.67 , N/A) (N/A , -0.01 , N/A)	383.7	N/A	3.1572 [20.0000]	15.8% { 12.4% }			S1,
13C3_HFPODA_EIS	(287.0 / 169.0) 26426	(6.43 , N/A) (N/A , -0.01 , N/A)	151.3	N/A	0.1161 [8.0000]	1.5% { 1.5% }			S1,

PREPARATION BATCH SUMMARY

EPA 1633

Laboratory: APPL, LLC

Work Order: 22L0126

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Batch: BBL0470

Batch Matrix: Solid

Preparation: EPA 1633

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT g	FINAL VOL. ml
ADIT6-DU05-SON01MI-22DEC	22L0126-01	12/27/22 11:43	5.00	2.00
ADIT6-DU06-SON01MI-22DEC	22L0126-02	12/27/22 11:43	5.15	2.00
ADIT6-DU07-SON01MI-22DEC	22L0126-03	12/27/22 11:43	5.28	2.00
ADIT6-DU08-SON01MI-22DEC	22L0126-04	12/27/22 11:43	5.16	2.00
Blank	BBL0470-BLK1	12/27/22 11:43	5.00	2.00
LCS	BBL0470-BS1	12/27/22 11:43	5.00	2.00
MRL Check	BBL0470-MRL1	12/27/22 11:43	5.00	2.00
ADIT6-DU05-SON01MI-22DEC	BBL0470-MS1	12/27/22 11:43	5.00	2.00
ADIT6-DU05-SON01MI-22DEC	BBL0470-MSD1	12/27/22 11:43	5.13	2.00

PREPARATION BENCH SHEET

Organics

BBL0470

Print Date/Time: 12/27/2022 11:50 am

Matrix: Solid

Prepared using: PFAS - 1633

Analyses		Spiking Solution(s)				Surrogate Solution(s)			
1633 MIS Dry		22L0269	PFAS - MIX 1633 10ng/mL		22L0357	MPFAC-HIF-ES 20.0ng/mL			
Lab Number	Sample and Source ID	Date Due	Extract by	Prepared	Initial (g)	Final (mL)	ul Spike	ul Surrogate	Extraction Comments
22L0126-01	ADIT6-DU05-SON01MI-22DEC	12/27/2022	01/12/2023	12/27/2022 11:43:00AM	5	2		200	"Report relevant surrogates"
22L0126-02	ADIT6-DU06-SON01MI-22DEC	12/27/2022	01/12/2023	12/27/2022 11:43:00AM	5	2		200	"Report relevant surrogates"
22L0126-03	ADIT6-DU07-SON01MI-22DEC	12/27/2022	01/12/2023	12/27/2022 11:43:00AM	5	2		200	"Report relevant surrogates"
22L0126-04	ADIT6-DU08-SON01MI-22DEC	12/27/2022	01/12/2023	12/27/2022 11:43:00AM	5	2		200	"Report relevant surrogates"
BBL0470-BLK1	Blank			12/27/2022 11:43:00AM	5	2		200	
BBL0470-BS1	LCS			12/27/2022 11:43:00AM	5	2	200	200	
BBL0470-BSD1	LCS Dup			12/27/2022 11:43:00AM	5	2	200	200	
BBL0470-MRL1	MRL Check			12/27/2022 11:43:00AM	5	2	200	200	
BBL0470-MS1	Matrix Spike [22L0126-01]			12/27/2022 11:43:00AM	5	2	200	200	
BBL0470-MSD1	Matrix Spike Dup [22L0126-01]			12/27/2022 11:43:00AM	5	2	200	200	

Start Date/Time _____

Stop Date/Time _____

Reagents		
Standard	Description	LotNum

INJECTION LOG - ANALYSIS SEQUENCE SUMMARY

EPA 1633

Laboratory: APPL, LLC

SDG:

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Sequence: SB03989

Instrument: Saphira

Calibration: 2253007

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Blank	SB03989-CCB1	S2022-12-27B (1)	12/27/22 19:32
Low Cal Check	SB03989-LCV1	S2022-12-27B (2)	12/27/22 19:45
Calibration Check	SB03989-CCV1	S2022-12-27B (3)	12/27/22 19:57
Calibration Blank	SB03989-CCB2	S2022-12-27B (4)	12/27/22 20:36
Calibration Check	SB03989-CCV2	S2022-12-27B (17)	12/27/22 23:24
Calibration Blank	SB03989-CCB3	S2022-12-27B (18)	12/27/22 23:36
LCS	BBL0475-BS1	S2022-12-27B (20)B	12/28/22 00:02
MRL Check	BBL0475-MRL1	S2022-12-27B (21)B	12/28/22 00:15
Calibration Check	SB03989-CCV3	S2022-12-27B (32)	12/28/22 02:37
Calibration Blank	SB03989-CCB4	S2022-12-27B (33)	12/28/22 02:50

INJECTION LOG - ANALYSIS SEQUENCE SUMMARY

EPA 1633

Laboratory: APPL, LLC

SDG:

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Sequence: SB04012

Instrument: Saphira

Calibration: 2253011

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	SB04012-CAL1	S2022-12-29A (1)	12/29/22 12:08
Cal Standard	SB04012-CAL2	S2022-12-29A (2)	12/29/22 12:20
Cal Standard	SB04012-CAL3	S2022-12-29A (3)	12/29/22 12:33
Cal Standard	SB04012-CAL4	S2022-12-29A (4)	12/29/22 12:46
Cal Standard	SB04012-CAL5	S2022-12-29A (5)	12/29/22 12:59
Cal Standard	SB04012-CAL6	S2022-12-29A (6)	12/29/22 13:12
Cal Standard	SB04012-CAL7	S2022-12-29A (7)	12/29/22 13:25
Cal Standard	SB04012-CAL8	S2022-12-29A (8)	12/29/22 13:38
Initial Cal Blank	SB04012-ICB1	S2022-12-29A (9)	12/29/22 13:51
Secondary Cal Check	SB04012-SCV1	S2022-12-29A (10)	12/29/22 14:03

INJECTION LOG - ANALYSIS SEQUENCE SUMMARY

EPA 1633

Laboratory: APPL, LLC

SDG:

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Sequence: SB04022

Instrument: Saphira

Calibration: 2253011

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Blank	SB04022-CCB1	S2022-12-30A (1)	12/30/22 16:17
Low Cal Check	SB04022-LCV1	S2022-12-30A (2)	12/30/22 16:29
Calibration Check	SB04022-CCV1	S2022-12-30A (3)	12/30/22 16:42
Calibration Blank	SB04022-CCB2	S2022-12-30A (6)	12/30/22 17:21
Calibration Check	SB04022-CCV2	S2022-12-30A (15)	12/30/22 19:17
Calibration Blank	SB04022-CCB3	S2022-12-30A (16)	12/30/22 19:30
Blank	BBL0470-BLK1	S2022-12-30A (17)	12/30/22 19:43
LCS	BBL0470-BS1	S2022-12-30A (18)	12/30/22 19:56
MRL Check	BBL0470-MRL1	S2022-12-30A (19)	12/30/22 20:09
ADIT6-DU05-SON01MI-22DEC	BBL0470-MS1	S2022-12-30A (20)	12/30/22 20:21
ADIT6-DU05-SON01MI-22DEC	BBL0470-MSD1	S2022-12-30A (21)	12/30/22 20:34
ADIT6-DU05-SON01MI-22DEC	22L0126-01	S2022-12-30A (22)	12/30/22 20:47
ADIT6-DU06-SON01MI-22DEC	22L0126-02	S2022-12-30A (24)	12/30/22 21:13
ADIT6-DU07-SON01MI-22DEC	22L0126-03	S2022-12-30A (26)	12/30/22 21:39
ADIT6-DU08-SON01MI-22DEC	22L0126-04	S2022-12-30A (28)	12/30/22 22:05
Calibration Check	SB04022-CCV3	S2022-12-30A (30)	12/30/22 22:30
Calibration Blank	SB04022-CCB4	S2022-12-30A (31)	12/30/22 22:43
Blank	BBL0475-BLK1	S2022-12-30A (32)	12/30/22 22:56
ADIT6-DU05-SON01MI-22DEC	22L0126-01	S2022-12-30A (36)	12/30/22 23:48
ADIT6-DU05-SON01MI-22DEC	22L0126-01RE1	S2022-12-30A (37)	12/31/22 00:01
ADIT6-DU06-SON01MI-22DEC	22L0126-02	S2022-12-30A (38)	12/31/22 00:13
ADIT6-DU07-SON01MI-22DEC	22L0126-03	S2022-12-30A (40)	12/31/22 00:39
ADIT6-DU07-SON01MI-22DEC	22L0126-03RE1	S2022-12-30A (41)	12/31/22 00:52
ADIT6-DU08-SON01MI-22DEC	22L0126-04	S2022-12-30A (42)	12/31/22 01:05
ADIT6-DU08-SON01MI-22DEC	22L0126-04RE1	S2022-12-30A (43)	12/31/22 01:18
Calibration Check	SB04022-CCV4	S2022-12-30A (46)	12/31/22 01:56
Calibration Blank	SB04022-CCB5	S2022-12-30A (47)	12/31/22 02:09

SAMPLE DATA

FORM I

ANALYSIS DATA SHEET

ADIT6-DU05-SON01MI-22DEC

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	22L0126-01
		File ID:	S2022-12-30A (36)
Sampled:	12/15/22 15:10	Prepared:	12/27/22 13:57
		Analyzed:	12/30/22 23:48
Solids:	79.91	Preparation:	PFAS Leachates
		Dilution:	1
Initial/Final:	94.45 mL / 2 mL	Instrument:	Saphira
Batch:	BBL0475	Sequence:	SB04022
		Calibration:	2253011

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
PFBA	18	8.5	4.2	1.1	
PFPEA	37	4.2	4.2	0.34	
PFHXA	45	2.1	2.1	0.29	
PFHPA	9.3	2.1	1.1	0.22	
PFOA	3.0	2.1	1.1	0.79	
PFNA	0.53 J	2.1	1.1	0.43	
PFDA	1.1 U	2.1	1.1	0.53	
PFUnA	1.1 U	2.1	1.1	0.85	
PFDOA	1.1 U	2.1	1.1	0.58	
PFTRDA	1.6 U	2.1	1.6	1.1	
PFTEDA	1.1 U	2.1	1.1	1.1	
PFBS	1.2 J	2.1	1.1	0.20	
PFPEs	1.3 J	2.1	1.1	0.33	
PFHXS	12	2.1	1.1	0.17	
PFHPS	0.45 J	2.1	1.1	0.27	
PFOS	25	2.1	1.1	0.34	
PFNS	1.1 U	2.1	1.1	0.64	
PFDS	1.1 U	2.1	1.1	0.79	
PFDOS	1.1 U	2.1	1.1	0.64	
4:2FTS	4.2 U	8.5	4.2	1.5	
6:2FTS	1100	8.5	4.2	1.6	
8:2FTS	4.2 U	8.5	4.2	0.43	
PFOSA	1.1 U	2.1	1.1	0.53	
NMeFOSA	4.2 U	8.5	4.2	2.5	
NEtFOSA	4.2 U	8.5	4.2	2.2	
NMeFOSAA	1.1 U	2.1	1.1	0.58	
NEtFOSAA	1.1 U	2.1	1.1	0.58	
NMeFOSE	6.4 U	8.5	6.4	5.3	
NEtFOSE	6.4 U	8.5	6.4	5.3	
HFPO-DA	2.1 U	4.2	2.1	0.90	

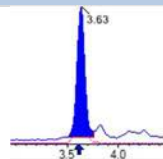
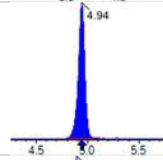
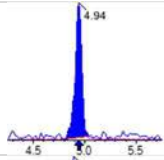
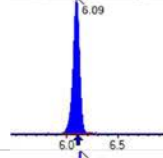
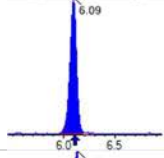
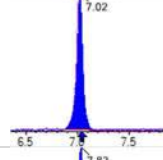
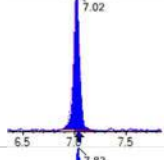
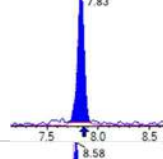
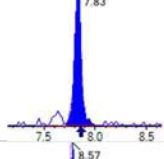
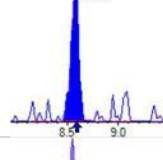
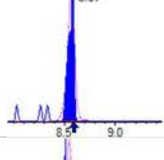
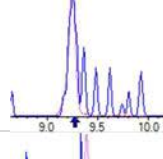
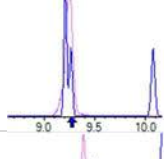
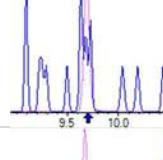
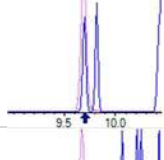
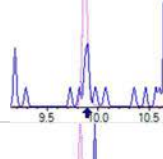
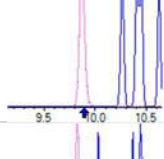
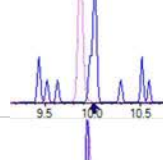
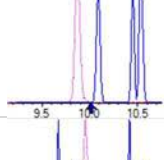
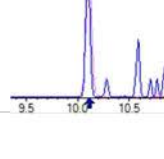
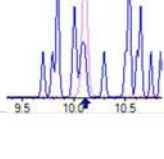
FORM I

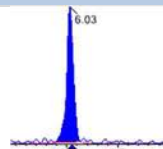
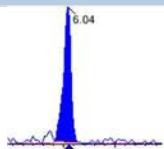
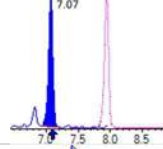
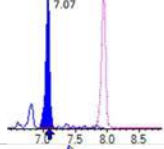
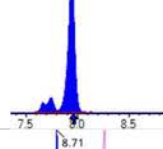
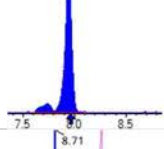
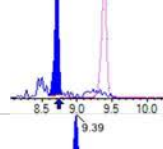
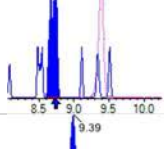
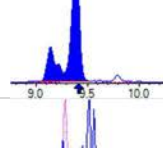
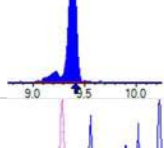
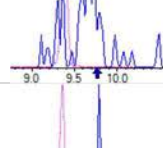
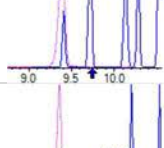
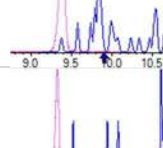
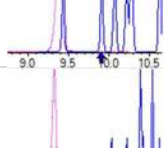
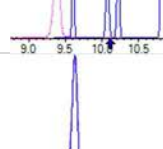
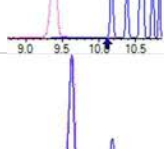
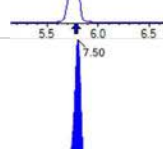
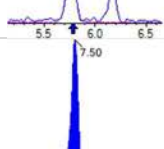
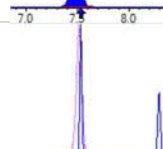
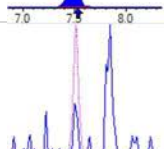

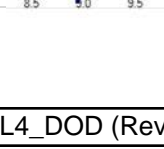
ANALYSIS DATA SHEET

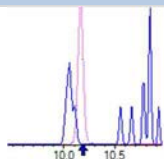
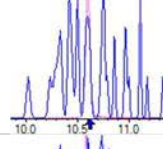
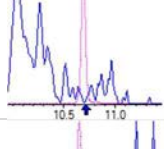
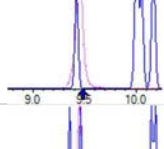
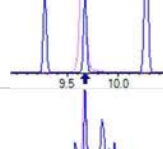
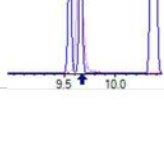
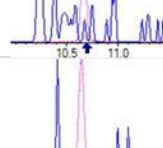
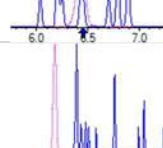
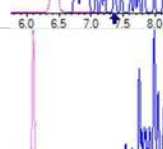
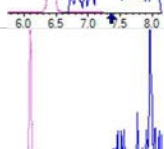
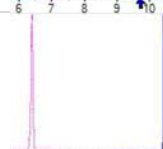
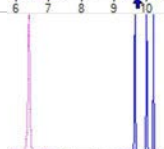
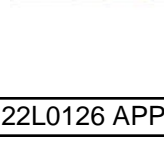
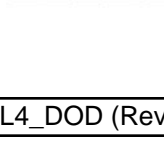
ADIT6-DU05-SON01MI-22DEC

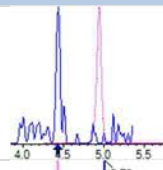
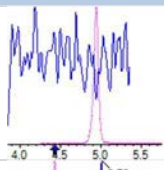
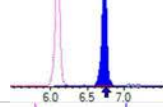
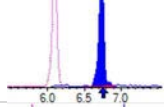
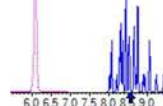
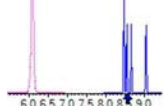
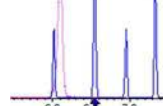
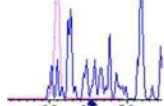
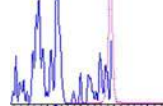
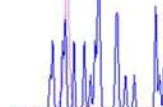

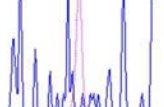

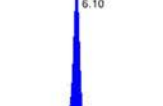
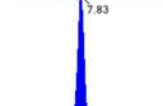
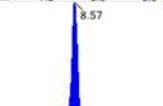
Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	22L0126-01
		File ID:	S2022-12-30A (36)
Sampled:	12/15/22 15:10	Prepared:	12/27/22 13:57
		Analyzed:	12/30/22 23:48
Solids:	79.91	Preparation:	PFAS Leachates
		Dilution:	1
Initial/Final:	94.45 mL / 2 mL	Instrument:	Saphira
Batch:	BBL0475	Sequence:	SB04022
		Calibration:	2253011

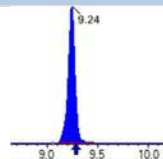
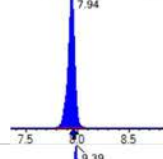
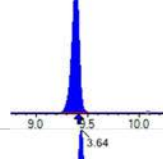
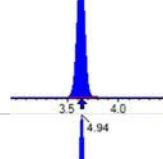
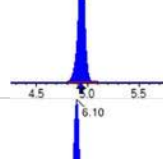
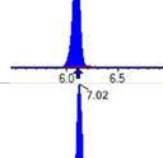
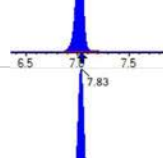
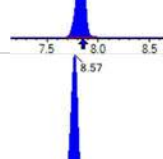
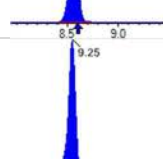
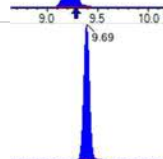

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
ADONA	2.1 U	4.2	2.1	0.64	
PFEESA	2.1 U	4.2	2.1	0.58	
PFMPA	2.1 U	4.2	2.1	0.29	
PFMBA	2.1 U	4.2	2.1	0.48	
NFDHA	2.1 U	4.2	2.1	1.6	
9CL-PF3ONS	2.1 U	4.2	2.1	1.1	
11CL-PF3OUDS	2.1 U	4.2	2.1	1.1	
3:3FTCA	4.2 U	8.5	4.2	3.0	
5:3FTCA	16	8.5	4.2	2.3	
7:3FTCA	4.2 U	8.5	4.2	2.9	

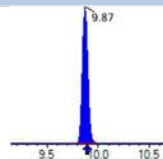
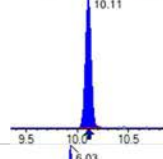
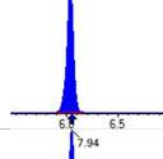
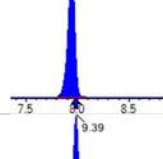
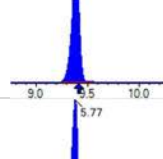
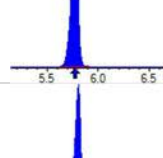
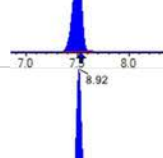
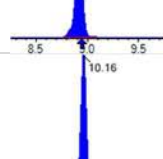
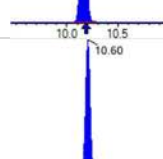
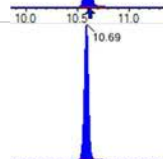
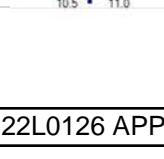
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 143023	(3.63 , 1.00) (0.00 , N/A , 0.0)	141.6	N/A 0.0 0.0	0.8370	N/A			
PFPeA	(263.0 / 219.0) 488955 (263.0 / 69.0) 5634	(4.94 , 1.00) (0.00 , N/A , 0.0)	456.1 77.8	0.0115 111.5 107.7	1.7474	N/A			
PFHxA	(313.0 / 269.0) 866834 (313.0 / 119.0) 81742	(6.09 , 1.00) (0.00 , N/A , 0.0)	565.0 300.0	0.0943 96.9 103.1	2.1039	N/A			
PFHpA	(363.0 / 319.0) 167395 (363.0 / 169.0) 45114	(7.02 , 1.00) (0.01 , N/A , 0.1)	284.7 198.7	0.2695 94.2 95.7	0.4413	N/A			
PFOA	(413.0 / 369.0) 53131 (413.0 / 169.0) 18183	(7.83 , 1.00) (0.00 , N/A , 0.1)	127.8 72.0	0.3422 112.7 101.8	0.1422	N/A			
PFNA	(463.0 / 419.0) 7292 (463.0 / 169.0) 1676	(8.58 , 1.00) (0.01 , N/A , 0.2)	29.1 93.0	0.2298 108.5 115.0	0.0250	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDaA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

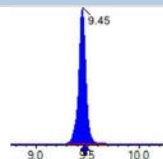

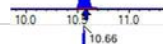


Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (Δ RT-[min], Δ RT- CV[min], Δ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 35601 (299.0 / 99.0) 23000	(6.03 , 1.00) (0.00 , N/A , -0.4)	116.2 75.2	0.6460 98.3 106.5	0.0558	N/A			
PFPeS	(349.0 / 80.0) 59475 (349.0 / 99.0) 19890	(7.07 , 0.89) (N/A , -0.02 , -0.1)	121.2 79.1	0.3344 90.2 98.1	0.0613	N/A			
PFHxS	(399.0 / 80.0) 493683 (399.0 / 99.0) 163869	(7.94 , 1.00) (0.00 , N/A , 0.0)	622.3 528.4	0.3319 101.8 106.2	0.5781	N/A			
PFHpS	(449.0 / 80.0) 15557 (449.0 / 99.0) 2771	(8.71 , 0.93) (N/A , -0.03 , -0.4)	56.3 16.6	0.1781 68.4 69.3	0.0213	N/A			
PFOS	(499.0 / 80.0) 1003201 (499.0 / 99.0) 239560	(9.39 , 1.00) (0.00 , N/A , 0.0)	208.5 455.8	0.2388 114.8 100.0	1.1959	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(699.0 / 80.0) N/A (699.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) 12975155 (427.0 / 81.0) 10006310	(7.50 , 1.00) (0.00 , N/A , -0.1)	787.3 589.7	0.7712 104.3 92.8	50.5032	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(512.0 / 219.0) N/A (512.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSE	(630.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-PF3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) 48401 (341.0 / 217.0) 83326	(6.73 , 1.10) (N/A , -0.01 , -0.1)	283.3 206.7	1.7216 95.9 111.4	0.7675	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(295.0 / 201.0) N/A (295.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 214298	(3.63 , N/A) (N/A , 0.00 , N/A)	756.7	N/A	0.9951 [1.0000]	99.5% { 106.0% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 367090	(6.10 , N/A) (N/A , -0.01 , N/A)	561.4	N/A	0.9670 [1.0000]	96.7% { 94.2% }			
13C4_PFOA_IIS	(417.0 / 372.0) 365338	(7.83 , N/A) (N/A , -0.03 , N/A)	537.2	N/A	1.0121 [1.0000]	101.2% { 95.2% }			
13C5_PFNA_IIS	(468.0 / 423.0) 288550	(8.57 , N/A) (N/A , -0.02 , N/A)	382.1	N/A	0.9813 [1.0000]	98.1% { 99.0% }			

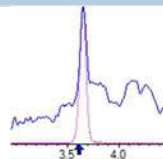
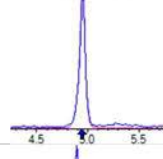
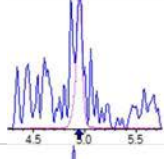
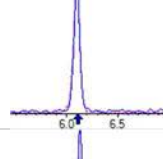
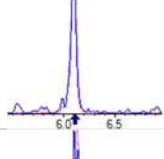
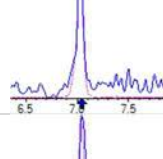
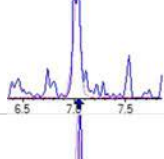
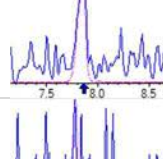
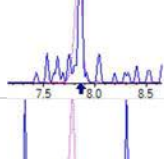
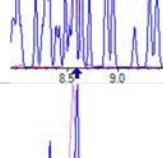
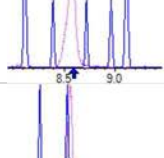
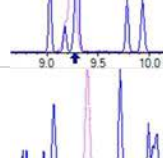
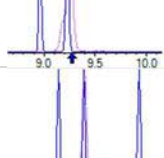
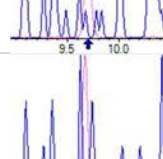
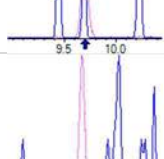
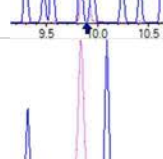
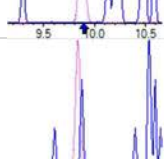
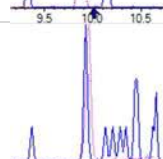
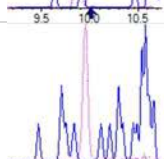
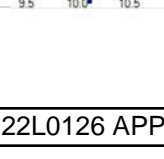
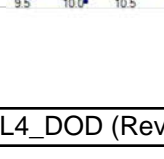
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 333369	(9.24 , N/A) (N/A , -0.03 , N/A)	405.4	N/A	0.9786 [1.0000]	97.9% { 95.7% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 548259	(7.94 , N/A) (N/A , -0.03 , N/A)	759.5	N/A	0.9061 [1.0000]	90.6% { 86.6% }			
13C4_PFOS_IIS	(503.0 / 79.9) 602800	(9.39 , N/A) (N/A , -0.02 , N/A)	420.1	N/A	0.9348 [1.0000]	93.5% { 94.8% }			
13C4_PFBA_EIS	(217.0 / 172.0) 2926252	(3.64 , N/A) (N/A , 0.00 , N/A)	884.1	N/A	13.6009 [16.0000]	85.0% { 188.2% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 2357517	(4.94 , N/A) (N/A , 0.01 , N/A)	707.6	N/A	8.5125 [8.0000]	106.4% { 192.2% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 1660787	(6.10 , N/A) (N/A , -0.01 , N/A)	564.3	N/A	4.4212 [4.0000]	110.5% { 206.4% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 1448031	(7.02 , N/A) (N/A , -0.02 , N/A)	522.2	N/A	4.4374 [4.0000]	110.9% { 186.8% }			
13C8_PFOA_EIS	(421.0 / 376.0) 1403213	(7.83 , N/A) (N/A , -0.03 , N/A)	657.3	N/A	3.7540 [4.0000]	93.8% { 190.5% }			
13C9_PFNA_EIS	(472.0 / 427.0) 604200	(8.57 , N/A) (N/A , -0.03 , N/A)	492.3	N/A	2.0152 [2.0000]	100.8% { 189.5% }			
13C6_PFDA_EIS	(519.0 / 474.0) 790152	(9.25 , N/A) (N/A , -0.02 , N/A)	431.2	N/A	1.9623 [2.0000]	98.1% { 206.8% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 1072957	(9.69 , N/A) (N/A , -0.02 , N/A)	420.4	N/A	2.1666 [2.0000]	108.3% { 197.8% }			

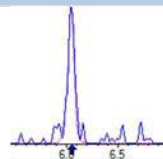
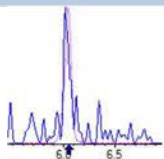
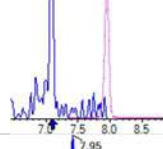
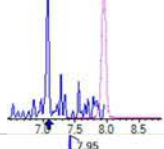
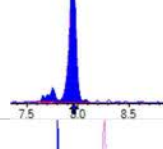
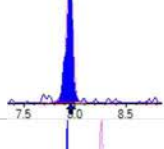
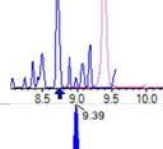
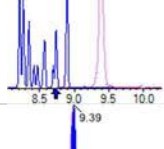
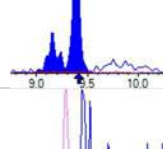
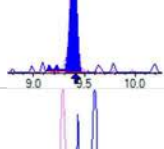
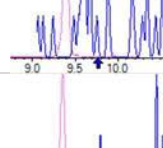
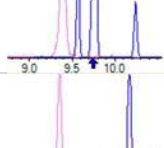
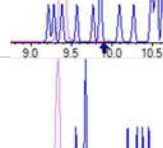
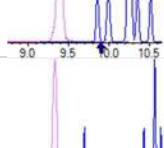
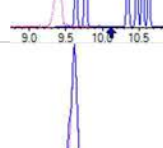
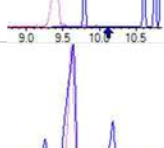
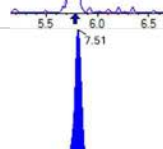
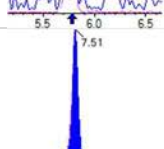
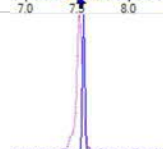
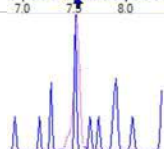
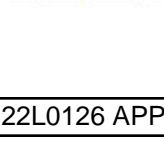
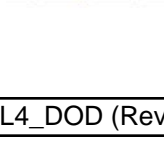
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 1044087	(9.87 , N/A) (N/A , -0.02 , N/A)	521.6	N/A	2.1127 [2.0000]	105.6% { 180.5% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 363247	(10.11 , N/A) (N/A , -0.01 , N/A)	1566.2	N/A	1.1600 [2.0000]	58.0% { 96.0% }			
13C3_PFBs_EIS	(302.0 / 80.0) 4000435	(6.03 , N/A) (N/A , -0.01 , N/A)	567.5	N/A	4.8212 [4.0000]	120.5% { 203.4% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1972297	(7.94 , N/A) (N/A , -0.03 , N/A)	661.2	N/A	4.3898 [4.0000]	109.7% { 199.4% }			
13C8_PFOS_EIS	(507.0 / 80.0) 2881669	(9.39 , N/A) (N/A , -0.02 , N/A)	490.6	N/A	3.9669 [4.0000]	99.2% { 187.6% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 1290812	(5.77 , N/A) (N/A , 0.00 , N/A)	527.6	N/A	13.7693 [8.0000]	172.1% { 259.4% }			S2,
13C2_6:2FTS_EIS	(429.0 / 81.0) 1280170	(7.50 , N/A) (N/A , -0.02 , N/A)	700.5	N/A	10.3208 [8.0000]	129.0% { 219.8% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 869655	(8.92 , N/A) (N/A , -0.02 , N/A)	402.0	N/A	5.5620 [8.0000]	69.5% { 139.5% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 4047722	(10.16 , N/A) (N/A , -0.02 , N/A)	753.2	N/A	4.7740 [4.0000]	119.3% { 212.7% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 399394	(10.60 , N/A) (N/A , -0.02 , N/A)	1061.0	N/A	2.4910 [4.0000]	62.3% { 107.6% }			
D5_NEtFOSA_EIS	(531.0 / 169.0) 324524	(10.69 , N/A) (N/A , -0.02 , N/A)	741.3	N/A	2.2098 [4.0000]	55.2% { 95.0% }			

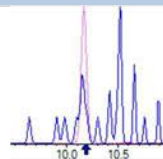
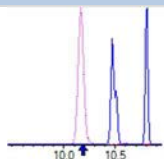
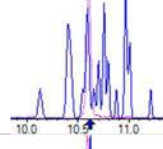
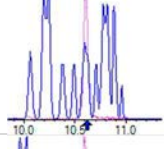
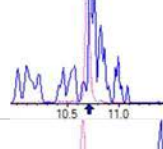
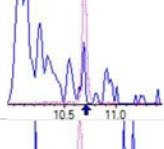
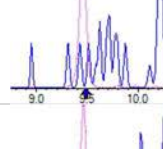
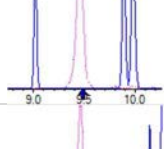
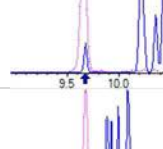
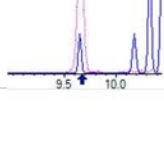
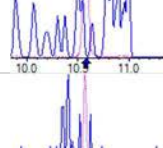
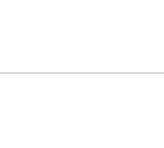
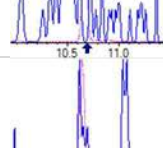
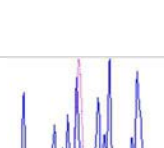
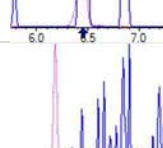
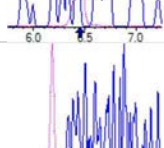
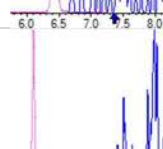
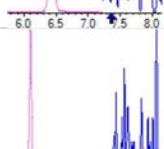
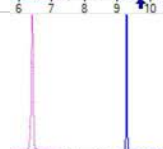
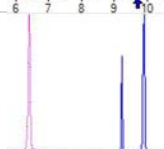
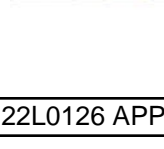
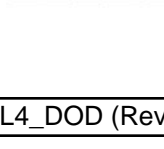
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 1850689	(9.45 , N/A) (N/A , -0.02 , N/A)	483.0	N/A	8.0971 [8.0000]	101.2% { 183.6% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 1530570	(9.65 , N/A) (N/A , -0.02 , N/A)	143.2	N/A	8.4223 [8.0000]	105.3% { 171.2% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 1139508	(10.57 , N/A) (N/A , -0.01 , N/A)	898.0	N/A	32.5294 [40.0000]	81.3% { 114.5% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 475192	(10.66 , N/A) (N/A , -0.01 , N/A)	1085.0	N/A	29.4175 [40.0000]	73.5% { 101.1% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 3449212	(6.43 , N/A) (N/A , -0.01 , N/A)	724.3	N/A	16.4136 [16.0000]	102.6% { 197.3% }			

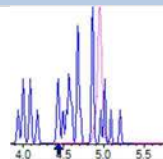
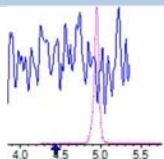
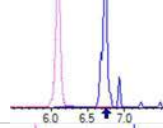
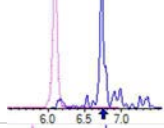
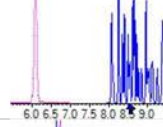
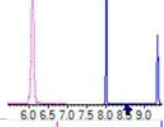
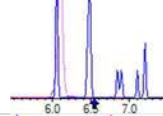
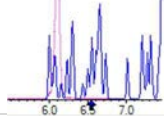
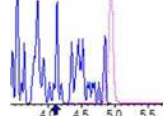
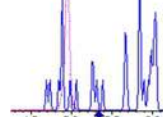
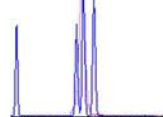
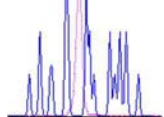
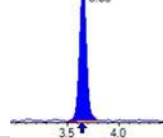
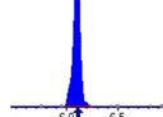
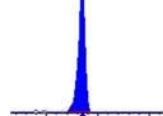

FORM I
ANALYSIS DATA SHEET
ADIT6-DU05-SON01MI-22DEC

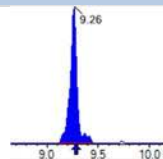
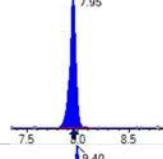
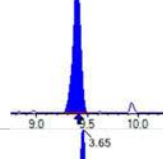
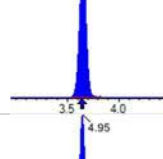
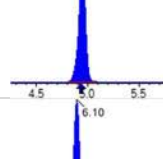
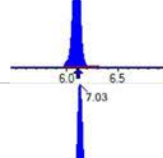
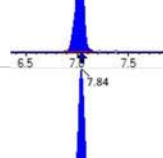
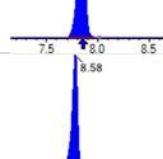
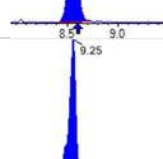
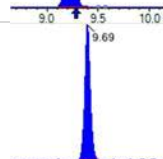

Laboratory:	APPL, LLC	Work Order:	22L0126		
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling		
Matrix:	Solid	Laboratory ID:	22L0126-01RE1	File ID:	S2022-12-30A (37)
Sampled:	12/15/22 15:10	Prepared:	12/27/22 13:57	Analyzed:	12/31/22 00:01
Solids:	79.91	Preparation:	PFAS Leachates	Dilution:	10
Initial/Final:	94.45 mL / 2 mL			Instrument:	Saphira
Batch:	BBL0475	Sequence:	SB04022	Calibration:	2253011

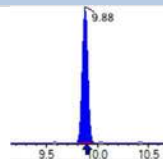
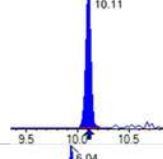
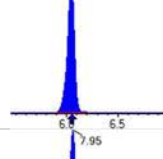
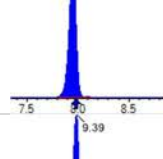
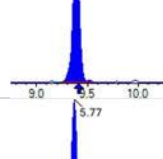
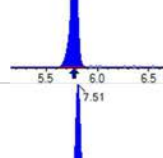
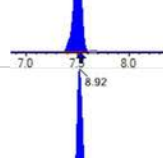
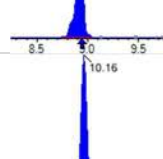
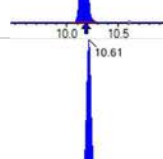
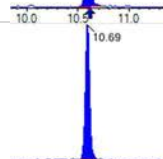
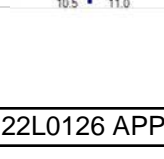
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(263.0 / 219.0) N/A (263.0 / 69.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

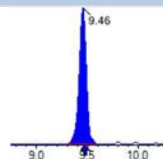
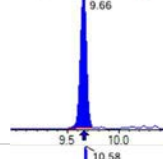
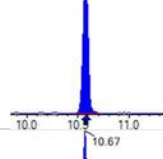
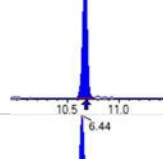
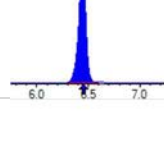
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) N/A (299.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	(349.0 / 80.0) N/A (349.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	(399.0 / 80.0) 52169 (399.0 / 99.0) 14686	(7.95 , 1.00) (0.00 , N/A , -0.1)	232.4 159.4	0.2815 86.3 90.1	0.0643	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) 112454 (499.0 / 99.0) 23744	(9.39 , 1.00) (0.00 , N/A , -0.3)	143.7 100.4	0.2111 101.5 88.4	0.1389	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(699.0 / 80.0) N/A (699.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) 1238803 (427.0 / 81.0) 982269	(7.51 , 1.00) (0.00 , N/A , 0.0)	563.0 662.7	0.7929 107.3 95.4	4.4441	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(512.0 / 219.0) N/A (512.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSE	(630.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-PF3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(295.0 / 201.0) N/A (295.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 21306	(3.65 , N/A) (N/A , 0.02 , N/A)	305.3	N/A	0.9894 [1.0000]	98.9% { 10.5% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 37245	(6.10 , N/A) (N/A , 0.00 , N/A)	402.3	N/A	0.9811 [1.0000]	98.1% { 9.6% }			
13C4_PFOA_IIS	(417.0 / 372.0) 34007	(7.85 , N/A) (N/A , -0.01 , N/A)	403.7	N/A	0.9421 [1.0000]	94.2% { 8.9% }			
13C5_PFNA_IIS	(468.0 / 423.0) 26818	(8.57 , N/A) (N/A , -0.02 , N/A)	192.4	N/A	0.9120 [1.0000]	91.2% { 9.2% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (Δ RT-[min], Δ RT- CV[min], Δ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 32133	(9.26, N/A) (N/A, -0.01, N/A)	192.9	N/A	0.9433 [1.0000]	94.3% { 9.2% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 58009	(7.95, N/A) (N/A, -0.02, N/A)	335.4	N/A	0.9587 [1.0000]	95.9% { 9.2% }			
13C4_PFOS_IIS	(503.0 / 79.9) 69198	(9.40, N/A) (N/A, -0.01, N/A)	209.8	N/A	1.0732 [1.0000]	107.3% { 10.9% }			
13C4_PFBA_EIS	(217.0 / 172.0) 314219	(3.65, N/A) (N/A, 0.02, N/A)	780.2	N/A	1.4689 [1.6000]	91.8% { 20.2% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 225963	(4.95, N/A) (N/A, 0.01, N/A)	573.1	N/A	0.8042 [0.8000]	100.5% { 18.4% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 151635	(6.10, N/A) (N/A, 0.00, N/A)	371.2	N/A	0.3979 [0.4000]	99.5% { 18.8% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 137146	(7.03, N/A) (N/A, -0.01, N/A)	336.9	N/A	0.4142 [0.4000]	103.6% { 17.7% }			
13C8_PFOA_EIS	(421.0 / 376.0) 141293	(7.84, N/A) (N/A, -0.02, N/A)	468.4	N/A	0.4061 [0.4000]	101.5% { 19.2% }			
13C9_PFNA_EIS	(472.0 / 427.0) 55597	(8.58, N/A) (N/A, -0.02, N/A)	272.9	N/A	0.1995 [0.2000]	99.8% { 17.4% }			
13C6_PFDA_EIS	(519.0 / 474.0) 63050	(9.25, N/A) (N/A, -0.02, N/A)	282.9	N/A	0.1624 [0.2000]	81.2% { 16.5% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 92139	(9.69, N/A) (N/A, -0.01, N/A)	262.6	N/A	0.1930 [0.2000]	96.5% { 17.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 108281	(9.88 , N/A) (N/A , -0.01 , N/A)	320.8	N/A	0.2273 [0.2000]	113.7% { 18.7% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 41064	(10.11 , N/A) (N/A , -0.01 , N/A)	324.6	N/A	0.1361 [0.2000]	68.0% { 10.9% }			
13C3_PFBs_EIS	(302.0 / 80.0) 359957	(6.04 , N/A) (N/A , 0.00 , N/A)	590.0	N/A	0.4100 [0.4000]	102.5% { 18.3% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 187406	(7.95 , N/A) (N/A , -0.02 , N/A)	500.9	N/A	0.3942 [0.4000]	98.6% { 18.9% }			
13C8_PFOS_EIS	(507.0 / 80.0) 278162	(9.39 , N/A) (N/A , -0.02 , N/A)	381.7	N/A	0.3336 [0.4000]	83.4% { 18.1% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 111559	(5.77 , N/A) (N/A , 0.00 , N/A)	429.3	N/A	1.1247 [0.8000]	140.6% { 22.4% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 138898	(7.51 , N/A) (N/A , -0.02 , N/A)	472.7	N/A	1.0584 [0.8000]	132.3% { 23.8% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 128346	(8.92 , N/A) (N/A , -0.01 , N/A)	325.6	N/A	0.7758 [0.8000]	97.0% { 20.6% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 361324	(10.16 , N/A) (N/A , -0.01 , N/A)	540.2	N/A	0.3712 [0.4000]	92.8% { 19.0% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 39743	(10.61 , N/A) (N/A , -0.01 , N/A)	300.7	N/A	0.2159 [0.4000]	54.0% { 10.7% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 35546	(10.69 , N/A) (N/A , -0.01 , N/A)	290.4	N/A	0.2109 [0.4000]	52.7% { 10.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 175231	(9.46 , N/A) (N/A , -0.02 , N/A)	258.6	N/A	0.6679 [0.8000]	83.5% { 17.4% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 162283	(9.66 , N/A) (N/A , -0.01 , N/A)	123.0	N/A	0.7779 [0.8000]	97.2% { 18.2% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 110003	(10.58 , N/A) (N/A , -0.01 , N/A)	510.2	N/A	2.7355 [4.0000]	68.4% { 11.1% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 49783	(10.67 , N/A) (N/A , -0.01 , N/A)	509.0	N/A	2.6847 [4.0000]	67.1% { 10.6% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 321479	(6.44 , N/A) (N/A , 0.00 , N/A)	535.2	N/A	1.5078 [1.6000]	94.2% { 18.4% }			

FORM I

ANALYSIS DATA SHEET

ADIT6-DU06-SON01MI-22DEC

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	22L0126-02
		File ID:	S2022-12-30A (38)
Sampled:	12/15/22 14:40	Prepared:	12/27/22 13:57
		Analyzed:	12/31/22 00:13
Solids:	79.36	Preparation:	PFAS Leachates
		Dilution:	1
Initial/Final:	97.56 mL / 2 mL	Instrument:	Saphira
Batch:	BBL0475	Sequence:	SB04022
		Calibration:	2253011

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
PFBA	5.0 J	8.2	4.1	1.1	
PFPEA	6.4	4.1	4.1	0.33	
PFHXA	7.7	2.1	2.1	0.28	
PFHPA	2.3	2.1	1.0	0.21	
PFOA	3.8	2.1	1.0	0.77	
PFNA	0.53 J	2.1	1.0	0.42	
PFDA	1.0 U	2.1	1.0	0.51	
PFUnA	1.0 U	2.1	1.0	0.82	
PFDOA	1.0 U	2.1	1.0	0.56	
PFTRDA	1.5 U	2.1	1.5	1.0	
PFTEDA	1.0 U	2.1	1.0	1.0	
PFBS	0.55 J	2.1	1.0	0.19	
PFPEs	0.39 J	2.1	1.0	0.32	
PFHXS	5.3	2.1	1.0	0.16	
PFHPS	0.40 J	2.1	1.0	0.26	
PFOS	49	2.1	1.0	0.33	
PFNS	1.0 U	2.1	1.0	0.62	
PFDS	1.0 U	2.1	1.0	0.77	
PFDOS	1.0 U	2.1	1.0	0.62	
4:2FTS	4.1 U	8.2	4.1	1.5	
6:2FTS	10	8.2	4.1	1.6	
8:2FTS	4.1 U	8.2	4.1	0.42	
PFOSA	1.0 U	2.1	1.0	0.51	
NMeFOSA	4.1 U	8.2	4.1	2.4	
NEtFOSA	4.1 U	8.2	4.1	2.1	
NMeFOSAA	1.0 U	2.1	1.0	0.56	
NEtFOSAA	1.0 U	2.1	1.0	0.56	
NMeFOSE	6.2 U	8.2	6.2	5.1	
NEtFOSE	6.2 U	8.2	6.2	5.1	
HFPO-DA	2.1 U	4.1	2.1	0.87	

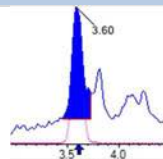
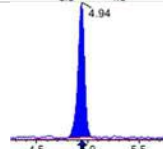
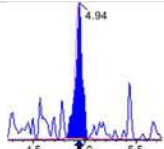
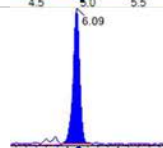
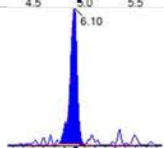
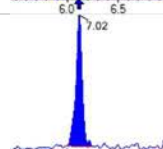
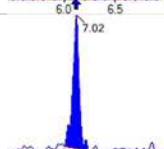
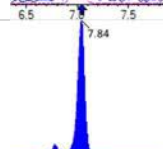
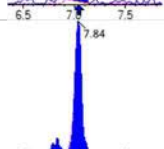
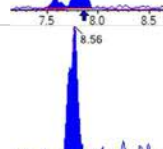
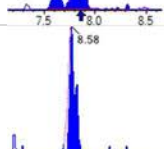
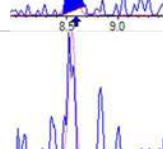
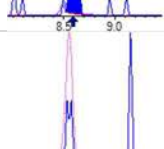
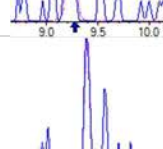
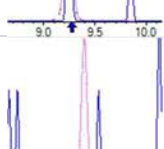
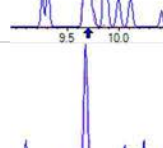
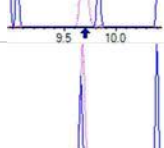
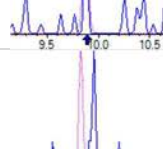
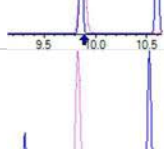
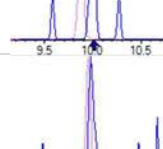
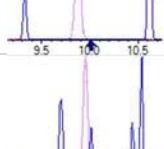
FORM I

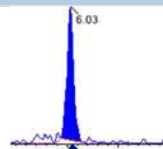
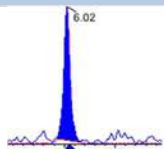
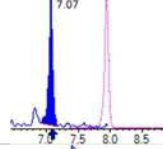
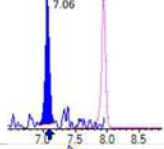
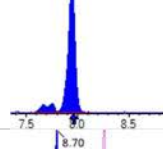
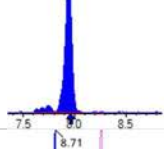
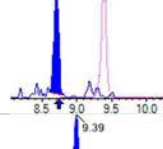
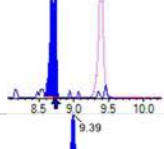
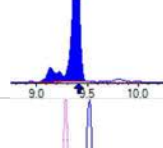
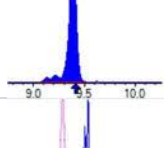
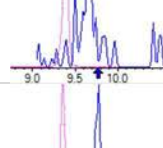
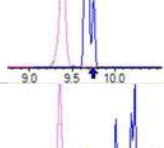
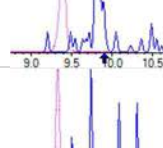
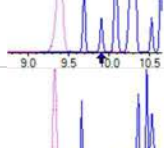
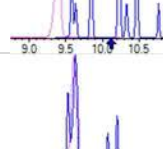
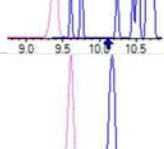
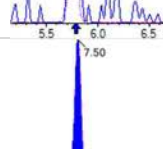
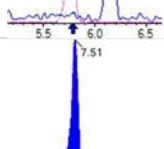
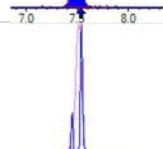
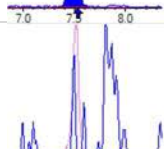

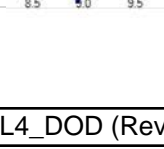
ANALYSIS DATA SHEET

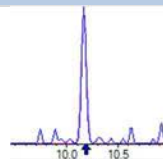
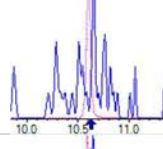
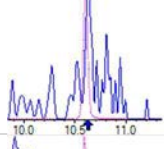
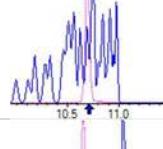
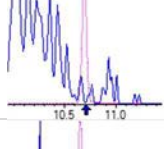
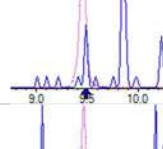
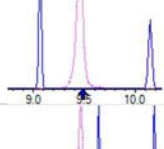
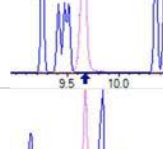
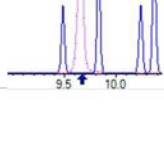
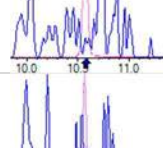
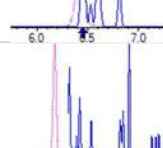
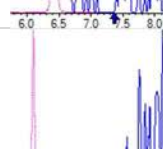
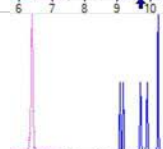
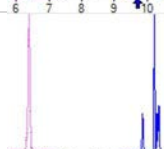
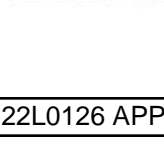
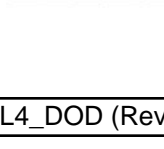
ADIT6-DU06-SON01MI-22DEC

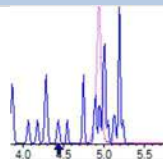
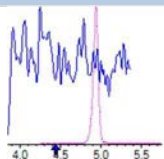
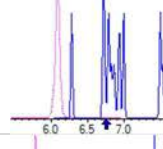
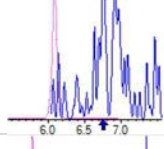
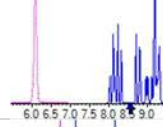
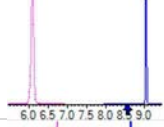
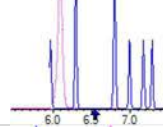
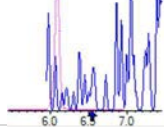
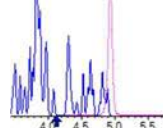
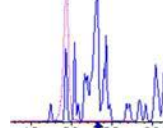
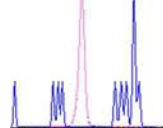
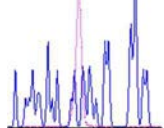
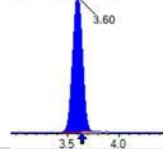
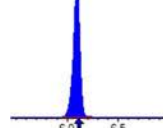
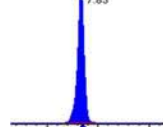
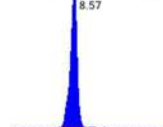
Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	22L0126-02
		File ID:	S2022-12-30A (38)
Sampled:	12/15/22 14:40	Prepared:	12/27/22 13:57
		Analyzed:	12/31/22 00:13
Solids:	79.36	Preparation:	PFAS Leachates
		Dilution:	1
Initial/Final:	97.56 mL / 2 mL	Instrument:	Saphira
Batch:	BBL0475	Sequence:	SB04022
		Calibration:	2253011

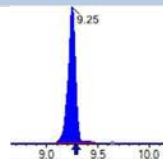
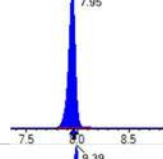
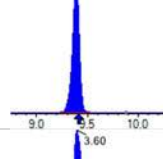
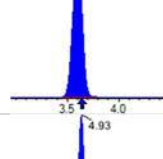
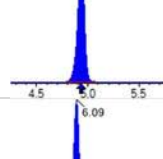
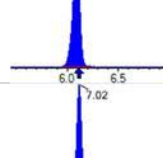
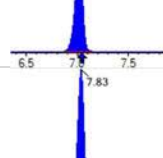
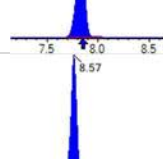
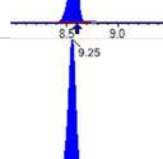
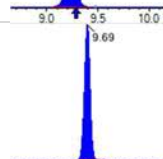

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
ADONA	2.1 U	4.1	2.1	0.62	
PFEESA	2.1 U	4.1	2.1	0.56	
PFMPA	2.1 U	4.1	2.1	0.28	
PFMBA	2.1 U	4.1	2.1	0.47	
NFDHA	2.1 U	4.1	2.1	1.5	
9CL-PF3ONS	2.1 U	4.1	2.1	1.1	
11CL-PF3OUDS	2.1 U	4.1	2.1	1.1	
3:3FTCA	4.1 U	8.2	4.1	2.9	
5:3FTCA	4.1 U	8.2	4.1	2.3	
7:3FTCA	4.1 U	8.2	4.1	2.8	

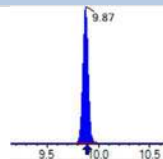
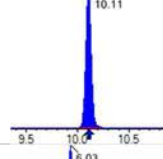
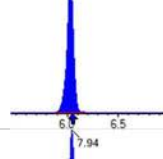
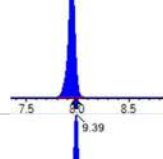
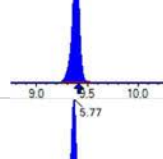
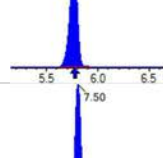
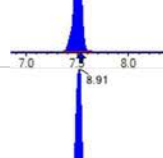
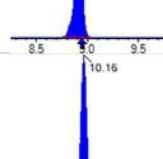
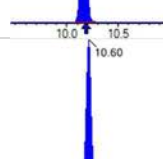
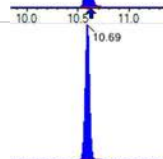
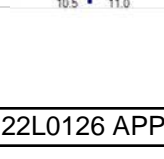
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 43150	(3.60 , 1.00) (0.00 , N/A , 0.0)	50.1	N/A 0.0 0.0	0.2446	N/A			
PFPeA	(263.0 / 219.0) 90679 (263.0 / 69.0) 1083	(4.94 , 1.00) (0.00 , N/A , -0.5)	273.8 20.4	0.0119 115.6 111.7	0.3118	N/A			
PFHxA	(313.0 / 269.0) 155384 (313.0 / 119.0) 12936	(6.09 , 1.00) (0.00 , N/A , -0.2)	156.5 53.6	0.0832 85.5 91.0	0.3751	N/A			
PFHpA	(363.0 / 319.0) 43212 (363.0 / 169.0) 13803	(7.02 , 1.00) (0.00 , N/A , 0.0)	92.8 73.2	0.3194 111.6 113.4	0.1123	N/A			
PFOA	(413.0 / 369.0) 74885 (413.0 / 169.0) 23970	(7.84 , 1.00) (0.00 , N/A , 0.1)	275.8 81382.7	0.3201 105.4 95.2	0.1850	N/A			
PFNA	(463.0 / 419.0) 7393 (463.0 / 169.0) 1627	(8.56 , 1.00) (-0.01 , N/A , -1.1)	33.0 47.8	0.2201 103.9 110.2	0.0259	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDaA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

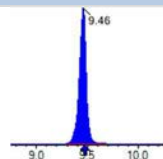
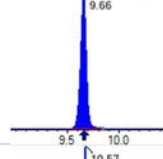
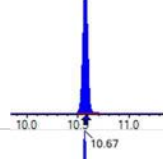
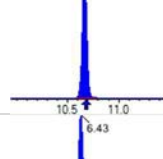
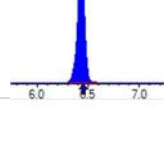
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 16954 (299.0 / 99.0) 12694	(6.03 , 1.00) (0.00 , N/A , 0.4)	74.2 65.2	0.7487 113.9 123.4	0.0270	N/A			
PFPeS	(349.0 / 80.0) 20282 (349.0 / 99.0) 6737	(7.07 , 0.89) (N/A , -0.02 , 0.5)	67.1 41.8	0.3322 89.6 97.4	0.0188	N/A			
PFHxS	(399.0 / 80.0) 245152 (399.0 / 99.0) 81606	(7.95 , 1.00) (0.00 , N/A , 0.2)	521.9 371.8	0.3329 102.1 106.5	0.2582	N/A			
PFHpS	(449.0 / 80.0) 16335 (449.0 / 99.0) 6061	(8.70 , 0.93) (N/A , -0.03 , -0.2)	61.1 62.4	0.3710 142.4 144.4	0.0195	N/A			
PFOS	(499.0 / 80.0) 2293035 (499.0 / 99.0) 584011	(9.39 , 1.00) (0.00 , N/A , 0.1)	279.0 467.7	0.2547 122.4 106.7	2.3750	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(699.0 / 80.0) N/A (699.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) 140474 (427.0 / 81.0) 86862	(7.50 , 1.00) (0.00 , N/A , -0.1)	431.1 285.8	0.6183 83.7 74.4	0.4903	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(512.0 / 219.0) N/A (512.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEIFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEIFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEIFOSE	(630.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-PF3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(295.0 / 201.0) N/A (295.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 208678	(3.60 , N/A) (N/A , -0.03 , N/A)	606.0	N/A	0.9690 [1.0000]	96.9% { 103.2% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 411509	(6.09 , N/A) (N/A , -0.01 , N/A)	436.3	N/A	1.0840 [1.0000]	108.4% { 105.6% }			
13C4_PFOA_IIS	(417.0 / 372.0) 392992	(7.83 , N/A) (N/A , -0.02 , N/A)	665.8	N/A	1.0887 [1.0000]	108.9% { 102.5% }			
13C5_PFNA_IIS	(468.0 / 423.0) 314169	(8.57 , N/A) (N/A , -0.02 , N/A)	447.4	N/A	1.0684 [1.0000]	106.8% { 107.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 386715	(9.25, N/A) (N/A, -0.02, N/A)	213.7	N/A	1.1352 [1.0000]	113.5% { 111.0% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 612050	(7.95, N/A) (N/A, -0.02, N/A)	515.4	N/A	1.0115 [1.0000]	101.2% { 96.7% }			
13C4_PFOS_IIS	(503.0 / 79.9) 772599	(9.39, N/A) (N/A, -0.02, N/A)	402.5	N/A	1.1982 [1.0000]	119.8% { 121.5% }			
13C4_PFBA_EIS	(217.0 / 172.0) 3020562	(3.60, N/A) (N/A, -0.03, N/A)	714.9	N/A	14.4174 [16.0000]	90.1% { 194.3% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 2449985	(4.93, N/A) (N/A, 0.00, N/A)	604.6	N/A	7.8915 [8.0000]	98.6% { 199.7% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 1669955	(6.09, N/A) (N/A, -0.01, N/A)	534.6	N/A	3.9657 [4.0000]	99.1% { 207.5% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 1469422	(7.02, N/A) (N/A, -0.02, N/A)	656.7	N/A	4.0169 [4.0000]	100.4% { 189.6% }			
13C8_PFOA_EIS	(421.0 / 376.0) 1519699	(7.83, N/A) (N/A, -0.02, N/A)	605.4	N/A	3.7795 [4.0000]	94.5% { 206.4% }			
13C9_PFNA_EIS	(472.0 / 427.0) 591770	(8.57, N/A) (N/A, -0.03, N/A)	423.5	N/A	1.8128 [2.0000]	90.6% { 185.6% }			
13C6_PFDA_EIS	(519.0 / 474.0) 838773	(9.25, N/A) (N/A, -0.03, N/A)	452.1	N/A	1.7957 [2.0000]	89.8% { 219.5% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 1108061	(9.69, N/A) (N/A, -0.01, N/A)	555.9	N/A	1.9289 [2.0000]	96.4% { 204.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 1107484	(9.87, N/A) (N/A, -0.01, N/A)	633.7	N/A	1.9319 [2.0000]	96.6% { 191.4% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 604664	(10.11, N/A) (N/A, -0.01, N/A)	1209.0	N/A	1.6646 [2.0000]	83.2% { 159.9% }			
13C3_PFBs_EIS	(302.0 / 80.0) 3942712	(6.03, N/A) (N/A, -0.01, N/A)	557.6	N/A	4.2563 [4.0000]	106.4% { 200.5% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 2192332	(7.94, N/A) (N/A, -0.03, N/A)	932.0	N/A	4.3709 [4.0000]	109.3% { 221.6% }			
13C8_PFOS_EIS	(507.0 / 80.0) 3316564	(9.39, N/A) (N/A, -0.02, N/A)	494.3	N/A	3.5621 [4.0000]	89.1% { 216.0% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 1206996	(5.77, N/A) (N/A, -0.01, N/A)	583.8	N/A	11.5333 [8.0000]	144.2% { 242.6% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 1427683	(7.50, N/A) (N/A, -0.02, N/A)	696.5	N/A	10.3104 [8.0000]	128.9% { 245.1% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 1567045	(8.91, N/A) (N/A, -0.02, N/A)	661.1	N/A	8.9778 [8.0000]	112.2% { 251.4% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 4321507	(10.16, N/A) (N/A, -0.01, N/A)	1161.1	N/A	3.9767 [4.0000]	99.4% { 227.1% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 506616	(10.60, N/A) (N/A, -0.01, N/A)	919.3	N/A	2.4653 [4.0000]	61.6% { 136.4% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 462189	(10.69, N/A) (N/A, -0.01, N/A)	829.7	N/A	2.4555 [4.0000]	61.4% { 135.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 2134333	(9.46 , N/A) (N/A , -0.02 , N/A)	449.5	N/A	7.2858 [8.0000]	91.1% { 211.7% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 2024475	(9.66 , N/A) (N/A , -0.01 , N/A)	144.1	N/A	8.6917 [8.0000]	108.6% { 226.5% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 1358738	(10.57 , N/A) (N/A , -0.01 , N/A)	1471.1	N/A	30.2631 [40.0000]	75.7% { 136.6% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 641227	(10.67 , N/A) (N/A , -0.01 , N/A)	1580.8	N/A	30.9718 [40.0000]	77.4% { 136.4% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 3543884	(6.43 , N/A) (N/A , -0.01 , N/A)	674.3	N/A	15.0438 [16.0000]	94.0% { 202.8% }			

FORM I

ANALYSIS DATA SHEET

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Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	22L0126-03
		File ID:	S2022-12-30A (40)
Sampled:	12/15/22 14:55	Prepared:	12/27/22 13:57
		Analyzed:	12/31/22 00:39
Solids:	80.57	Preparation:	PFAS Leachates
		Dilution:	1
Initial/Final:	98.32 mL / 2 mL	Instrument:	Saphira
Batch:	BBL0475	Sequence:	SB04022
		Calibration:	2253011

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
PFBA	11	8.1	4.1	1.1	
PFPEA	36	4.1	4.1	0.33	
PFHXA	21	2.0	2.0	0.28	
PFHPA	4.9	2.0	1.0	0.21	
PFOA	2.2	2.0	1.0	0.76	
PFNA	1.0 U	2.0	1.0	0.42	
PFDA	1.0 U	2.0	1.0	0.51	
PFUnA	1.0 U	2.0	1.0	0.81	
PFDOA	1.0 U	2.0	1.0	0.56	
PFTRDA	1.5 U	2.0	1.5	1.0	
PFTEDA	1.0 U	2.0	1.0	1.0	
PFBS	1.3 J	2.0	1.0	0.19	
PFPEs	1.0 U	2.0	1.0	0.32	
PFHXS	5.7	2.0	1.0	0.16	
PFHPS	1.0 U	2.0	1.0	0.26	
PFOS	22	2.0	1.0	0.33	
PFNS	1.0 U	2.0	1.0	0.61	
PFDS	1.0 U	2.0	1.0	0.76	
PFDOS	1.0 U	2.0	1.0	0.61	
4:2FTS	4.1 U	8.1	4.1	1.5	
6:2FTS	49	8.1	4.1	1.6	
8:2FTS	4.1 U	8.1	4.1	0.42	
PFOSA	1.0 U	2.0	1.0	0.51	
NMeFOSA	4.1 U	8.1	4.1	2.4	
NEtFOSA	4.1 U	8.1	4.1	2.1	
NMeFOSAA	1.0 U	2.0	1.0	0.56	
NEtFOSAA	1.0 U	2.0	1.0	0.56	
NMeFOSE	6.1 U	8.1	6.1	5.1	
NEtFOSE	6.1 U	8.1	6.1	5.1	
HFPO-DA	2.0 U	4.1	2.0	0.86	

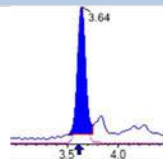
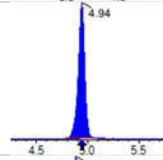
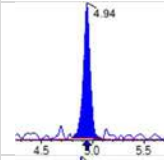
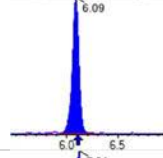
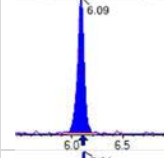
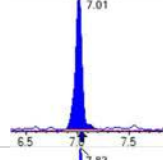
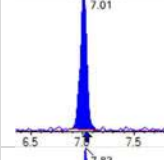
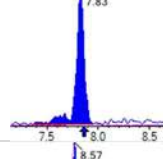
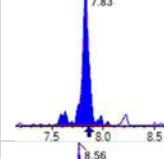
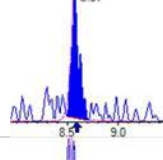
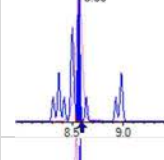
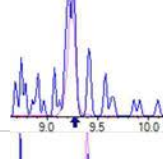
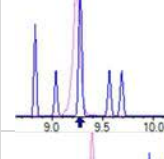
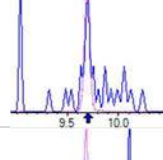
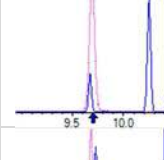
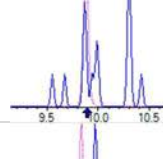
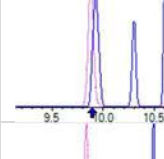
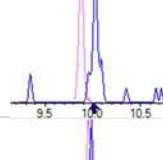
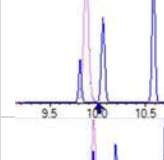
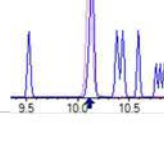
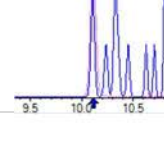
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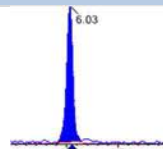
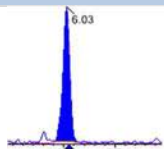
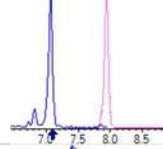
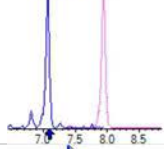
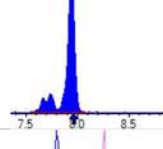
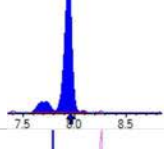
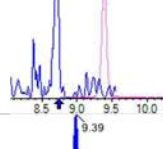
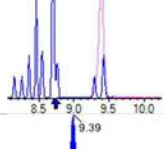
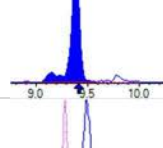
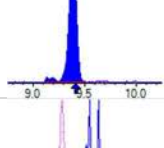
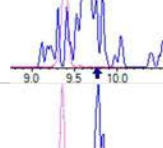
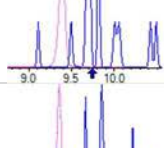
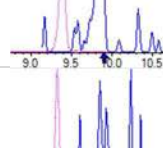
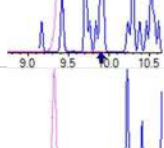
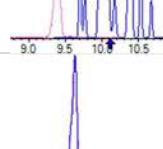
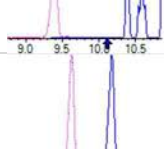
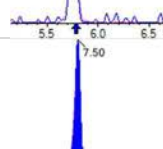
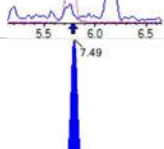
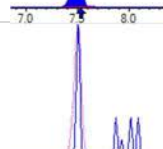
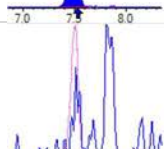

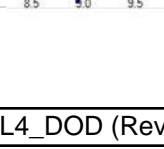
ANALYSIS DATA SHEET

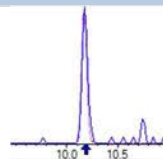
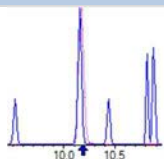
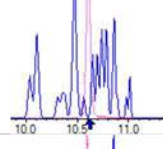
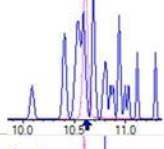
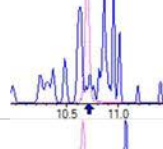
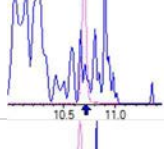
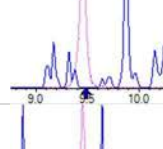
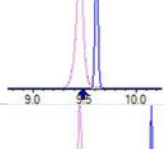
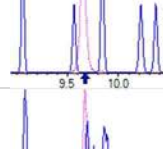
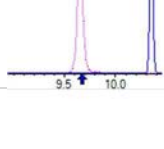
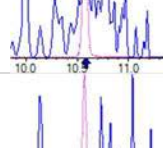
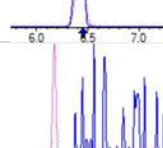
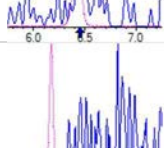
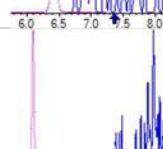
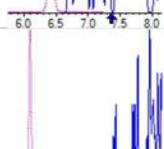
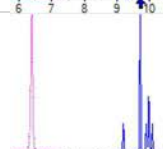
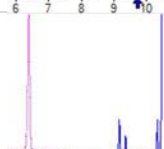
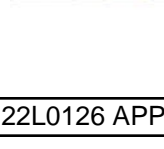
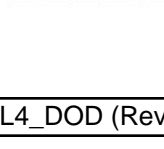
ADIT6-DU07-SON01MI-22DEC

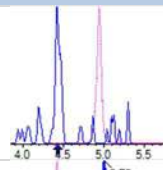
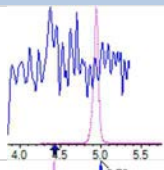
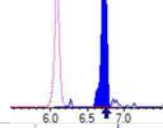
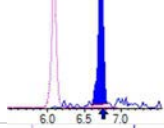
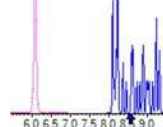
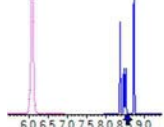
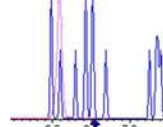
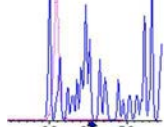
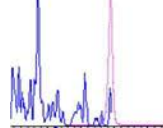
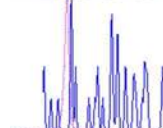
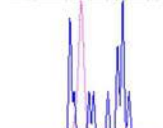
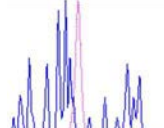
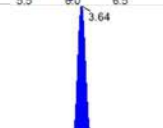
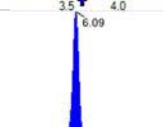
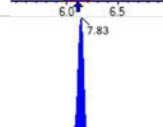
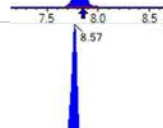
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Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	22L0126-03
		File ID:	S2022-12-30A (40)
Sampled:	12/15/22 14:55	Prepared:	12/27/22 13:57
		Analyzed:	12/31/22 00:39
Solids:	80.57	Preparation:	PFAS Leachates
		Dilution:	1
Initial/Final:	98.32 mL / 2 mL	Instrument:	Saphira
Batch:	BBL0475	Sequence:	SB04022
		Calibration:	2253011

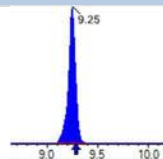
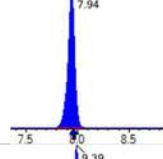
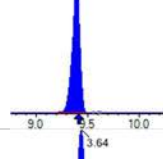
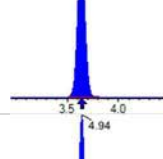
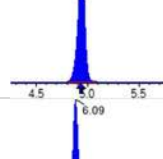
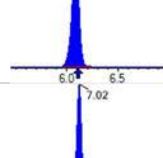
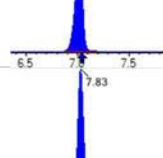
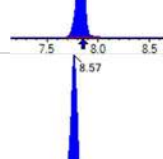
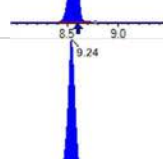
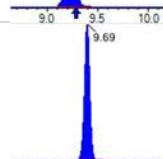

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
ADONA	2.0 U	4.1	2.0	0.61	
PFEESA	2.0 U	4.1	2.0	0.56	
PFMPA	2.0 U	4.1	2.0	0.27	
PFMBA	2.0 U	4.1	2.0	0.46	
NFDHA	2.0 U	4.1	2.0	1.5	
9CL-PF3ONS	2.0 U	4.1	2.0	1.1	
11CL-PF3OUDS	2.0 U	4.1	2.0	1.1	
3:3FTCA	4.1 U	8.1	4.1	2.9	
5:3FTCA	4.6 J	8.1	4.1	2.2	
7:3FTCA	4.1 U	8.1	4.1	2.8	

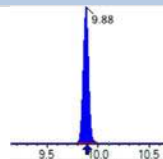
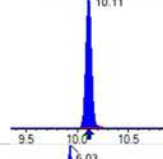
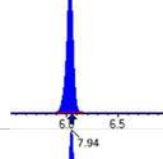
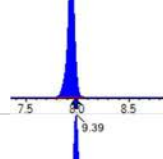
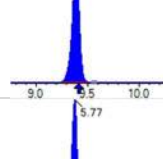
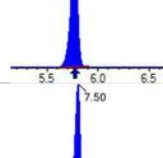
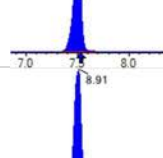
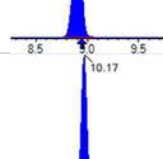
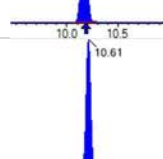
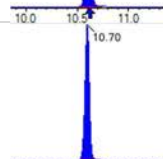
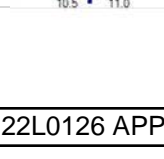
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 101643	(3.64 , 1.00) (0.00 , N/A , 0.0)	118.7	N/A 0.0 0.0	0.5577	N/A			
PFPeA	(263.0 / 219.0) 500138 (263.0 / 69.0) 5045	(4.94 , 1.00) (0.00 , N/A , -0.1)	521.3 81.8	0.0101 97.6 94.3	1.7831	N/A			
PFHxA	(313.0 / 269.0) 411079 (313.0 / 119.0) 34066	(6.09 , 1.00) (0.00 , N/A , -0.2)	356.1 176.5	0.0829 85.1 90.6	1.0127	N/A			
PFHpA	(363.0 / 319.0) 98769 (363.0 / 169.0) 32832	(7.01 , 1.00) (0.00 , N/A , 0.0)	159.7 142.8	0.3324 116.2 118.1	0.2413	N/A			
PFOA	(413.0 / 369.0) 44761 (413.0 / 169.0) 15514	(7.83 , 1.00) (0.00 , N/A , 0.1)	182.9 6732.0	0.3466 114.1 103.1	0.1059	N/A			
PFNA	(463.0 / 419.0) 5491 (463.0 / 169.0) 499	(8.57 , 1.00) (0.01 , N/A , 0.6)	19.6 17.7	0.0910 43.0 45.5	0.0165	N/A			IR1,
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDaA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

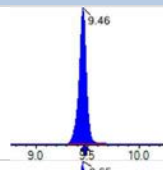


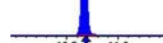

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 43836 (299.0 / 99.0) 28497	(6.03 , 1.00) (0.00 , N/A , 0.2)	166.8 121.6	0.6501 98.9 107.2	0.0651	N/A			
PFPeS	(349.0 / 80.0) N/A (349.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	(399.0 / 80.0) 251395 (399.0 / 99.0) 80142	(7.94 , 1.00) (0.00 , N/A , 0.0)	425.4 325.9	0.3188 97.8 102.0	0.2820	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) 1107774 (499.0 / 99.0) 272995	(9.39 , 1.00) (0.00 , N/A , -0.1)	226.3 404.5	0.2464 118.5 103.2	1.0866	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(699.0 / 80.0) N/A (699.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) 661657 (427.0 / 81.0) 470158	(7.50 , 1.00) (0.00 , N/A , 0.4)	653.6 613.6	0.7106 96.1 85.5	2.3979	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(512.0 / 219.0) N/A (512.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSE	(630.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-PF3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) 14175 (341.0 / 217.0) 20116	(6.73 , 1.11) (N/A , -0.01 , 0.3)	125.4 71.1	1.4192 79.1 91.9	0.2281	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(295.0 / 201.0) N/A (295.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 222164	(3.64 , N/A) (N/A , 0.01 , N/A)	645.8	N/A	1.0316 [1.0000]	103.2% { 109.9% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 435843	(6.09 , N/A) (N/A , -0.01 , N/A)	559.6	N/A	1.1481 [1.0000]	114.8% { 111.8% }			
13C4_PFOA_IIS	(417.0 / 372.0) 418076	(7.83 , N/A) (N/A , -0.03 , N/A)	503.2	N/A	1.1582 [1.0000]	115.8% { 109.0% }			
13C5_PFNA_IIS	(468.0 / 423.0) 338408	(8.57 , N/A) (N/A , -0.03 , N/A)	482.8	N/A	1.1508 [1.0000]	115.1% { 116.1% }			

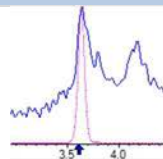
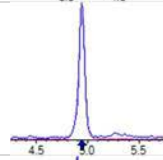
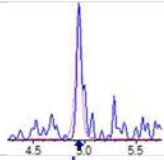
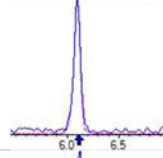
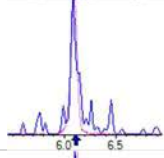
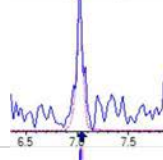
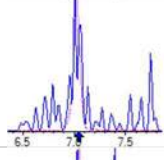
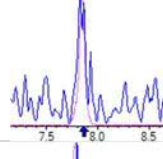
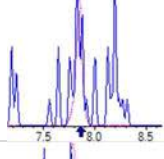
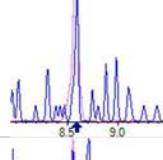
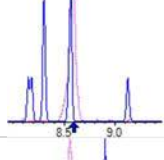
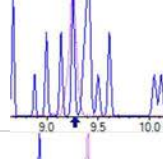
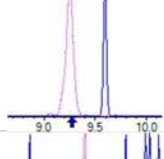
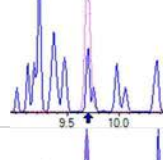
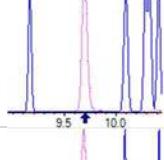
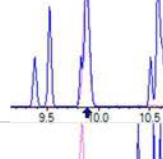
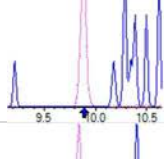
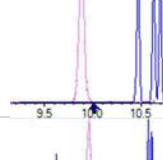
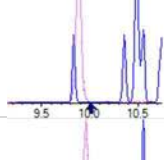
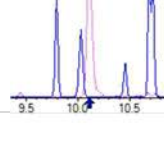
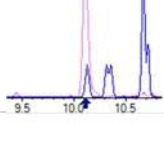
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 386185	(9.25, N/A) (N/A, -0.02, N/A)	497.1	N/A	1.1337 [1.0000]	113.4% { 110.9% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 652384	(7.94, N/A) (N/A, -0.03, N/A)	703.9	N/A	1.0782 [1.0000]	107.8% { 103.0% }			
13C4_PFOS_IIS	(503.0 / 79.9) 708476	(9.39, N/A) (N/A, -0.02, N/A)	417.1	N/A	1.0987 [1.0000]	109.9% { 111.4% }			
13C4_PFBA_EIS	(217.0 / 172.0) 3120802	(3.64, N/A) (N/A, 0.00, N/A)	771.9	N/A	13.9916 [16.0000]	87.4% { 200.7% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 2363202	(4.94, N/A) (N/A, 0.01, N/A)	615.3	N/A	7.1869 [8.0000]	89.8% { 192.6% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 1636306	(6.09, N/A) (N/A, -0.02, N/A)	522.5	N/A	3.6688 [4.0000]	91.7% { 203.4% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 1562770	(7.02, N/A) (N/A, -0.02, N/A)	459.5	N/A	4.0335 [4.0000]	100.8% { 201.6% }			
13C8_PFOA_EIS	(421.0 / 376.0) 1586909	(7.83, N/A) (N/A, -0.03, N/A)	622.8	N/A	3.7099 [4.0000]	92.7% { 215.5% }			
13C9_PFNA_EIS	(472.0 / 427.0) 689733	(8.57, N/A) (N/A, -0.03, N/A)	429.7	N/A	1.9616 [2.0000]	98.1% { 216.4% }			
13C6_PFDA_EIS	(519.0 / 474.0) 869765	(9.24, N/A) (N/A, -0.03, N/A)	431.2	N/A	1.8646 [2.0000]	93.2% { 227.6% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 1195665	(9.69, N/A) (N/A, -0.01, N/A)	603.0	N/A	2.0842 [2.0000]	104.2% { 220.4% }			

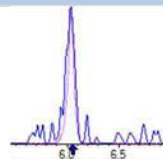
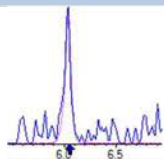
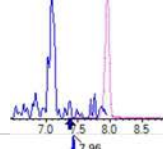
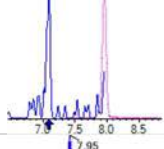
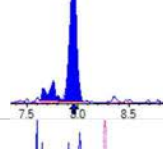
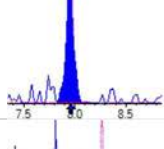
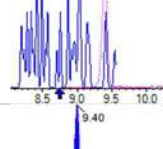
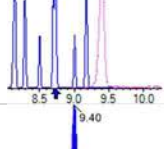
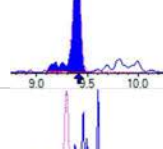
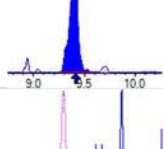
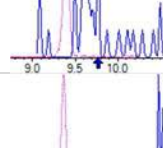
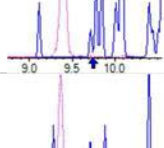
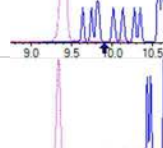
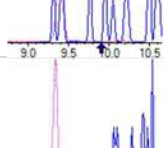
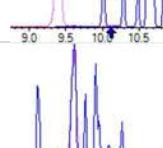
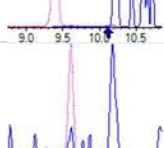
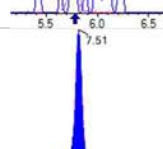
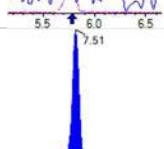
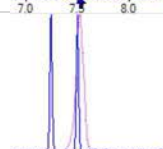
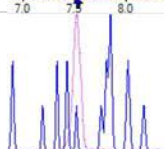
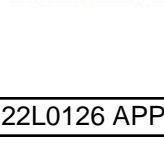
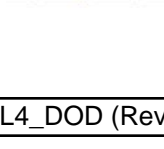
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 1140089	(9.88 , N/A) (N/A , -0.01 , N/A)	605.7	N/A	1.9915 [2.0000]	99.6% { 197.1% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 666944	(10.11 , N/A) (N/A , -0.01 , N/A)	2234.8	N/A	1.8386 [2.0000]	91.9% { 176.3% }			
13C3_PFBs_EIS	(302.0 / 80.0) 4220935	(6.03 , N/A) (N/A , -0.01 , N/A)	653.0	N/A	4.2750 [4.0000]	106.9% { 214.7% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 2058551	(7.94 , N/A) (N/A , -0.03 , N/A)	858.7	N/A	3.8505 [4.0000]	96.3% { 208.1% }			
13C8_PFOS_EIS	(507.0 / 80.0) 3502179	(9.39 , N/A) (N/A , -0.02 , N/A)	434.0	N/A	4.1020 [4.0000]	102.5% { 228.1% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 1376200	(5.77 , N/A) (N/A , -0.01 , N/A)	523.5	N/A	12.3371 [8.0000]	154.2% { 276.6% }			S2,
13C2_6:2FTS_EIS	(429.0 / 81.0) 1374890	(7.50 , N/A) (N/A , -0.03 , N/A)	608.6	N/A	9.3153 [8.0000]	116.4% { 236.1% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 1358557	(8.91 , N/A) (N/A , -0.03 , N/A)	578.7	N/A	7.3021 [8.0000]	91.3% { 217.9% }			
13C8_PFOA_EIS	(506.0 / 78.0) 4331881	(10.17 , N/A) (N/A , -0.01 , N/A)	1225.6	N/A	4.3470 [4.0000]	108.7% { 227.6% }			
D3_NMeFOA_EIS	(515.0 / 169.0) 465593	(10.61 , N/A) (N/A , -0.01 , N/A)	749.8	N/A	2.4707 [4.0000]	61.8% { 125.4% }			
D5_NEtFOA_EIS	(531.0 / 169.0) 408177	(10.70 , N/A) (N/A , -0.01 , N/A)	1568.9	N/A	2.3648 [4.0000]	59.1% { 119.5% }			

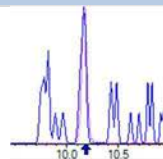
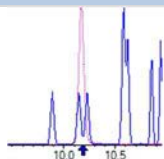
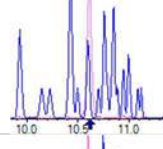
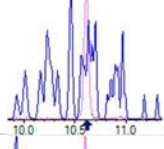
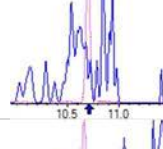
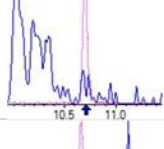
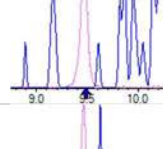
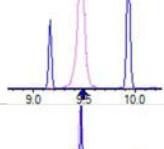
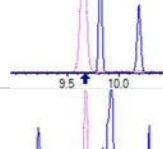
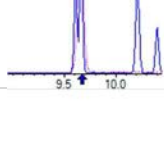
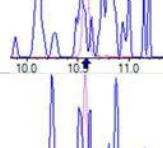
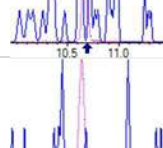
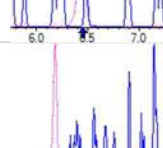
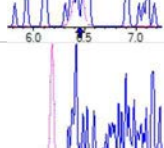
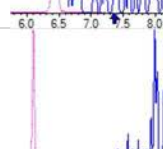
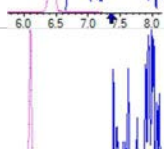
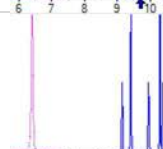
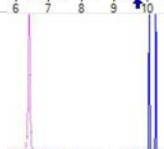
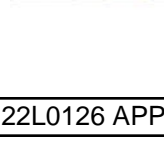
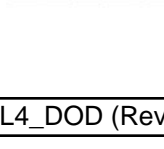
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 1936545	(9.46 , N/A) (N/A , -0.02 , N/A)	274.0	N/A	7.2089 [8.0000]	90.1% { 192.1% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 2037186	(9.65 , N/A) (N/A , -0.02 , N/A)	131.9	N/A	9.5379 [8.0000]	119.2% { 227.9% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 1400793	(10.57 , N/A) (N/A , -0.01 , N/A)	1275.3	N/A	34.0236 [40.0000]	85.1% { 140.8% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 703518	(10.67 , N/A) (N/A , -0.01 , N/A)	1551.1	N/A	37.0560 [40.0000]	92.6% { 149.7% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 3658201	(6.43 , N/A) (N/A , -0.02 , N/A)	560.1	N/A	14.6620 [16.0000]	91.6% { 209.3% }			

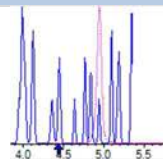
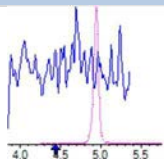
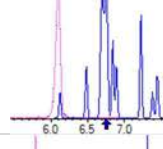
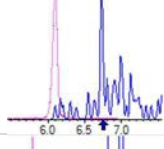
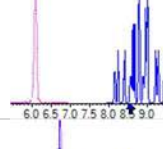
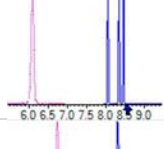
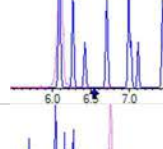
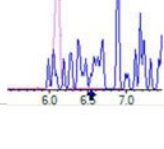
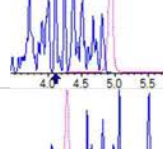
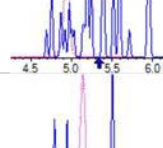
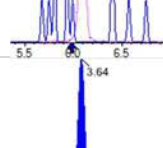
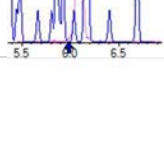
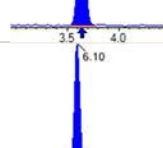
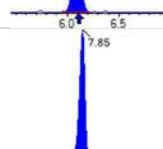
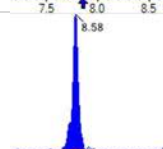
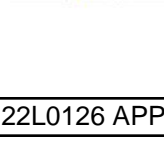
FORM I
ANALYSIS DATA SHEET
ADIT6-DU07-SON01MI-22DEC

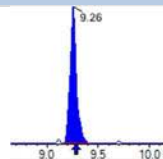
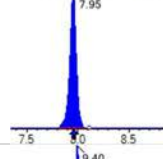
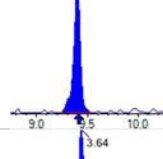
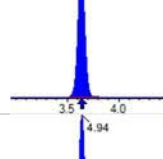
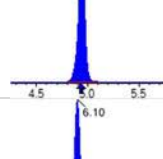
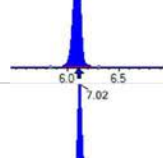
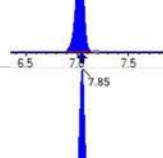
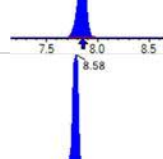
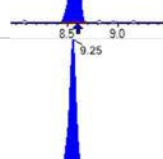
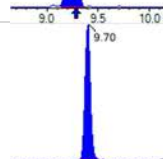

Laboratory:	APPL, LLC	Work Order:	22L0126		
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling		
Matrix:	Solid	Laboratory ID:	22L0126-03RE1	File ID:	S2022-12-30A (41)
Sampled:	12/15/22 14:55	Prepared:	12/27/22 13:57	Analyzed:	12/31/22 00:52
Solids:	80.57	Preparation:	PFAS Leachates	Dilution:	10
Initial/Final:	98.32 mL / 2 mL			Instrument:	Saphira
Batch:	BBL0475	Sequence:	SB04022	Calibration:	2253011

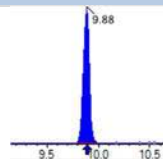
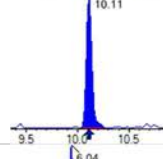
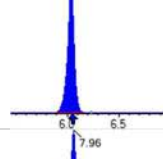
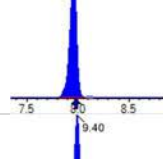
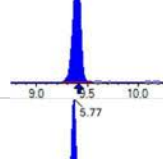
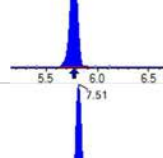
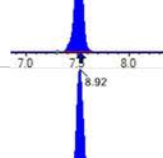
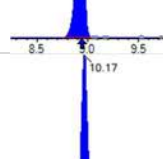
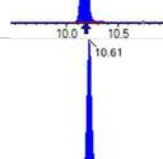
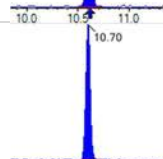
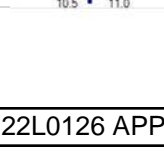
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(263.0 / 219.0) N/A (263.0 / 69.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

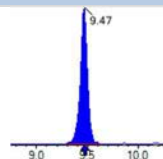




Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) N/A (299.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	(349.0 / 80.0) N/A (349.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	(399.0 / 80.0) 23736 (399.0 / 99.0) 5673	(7.96 , 1.00) (0.00 , N/A , 0.4)	138.7 64.1	0.2390 73.3 76.5	0.0282	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) 118384 (499.0 / 99.0) 23679	(9.40 , 1.00) (0.00 , N/A , -0.3)	90.8 917.3	0.2000 96.2 83.8	0.1280	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(699.0 / 80.0) N/A (699.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) 61758 (427.0 / 81.0) 47372	(7.51 , 1.00) (0.00 , N/A , 0.0)	254.4 170.7	0.7671 103.8 92.3	0.2019	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(512.0 / 219.0) N/A (512.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEIFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEIFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEtFOSE	(630.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-PF3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(295.0 / 201.0) N/A (295.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 22400	(3.64 , N/A) (N/A , 0.00 , N/A)	312.5	N/A	1.0402 [1.0000]	104.0% { 11.1% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 41236	(6.10 , N/A) (N/A , -0.01 , N/A)	330.2	N/A	1.0863 [1.0000]	108.6% { 10.6% }			
13C4_PFOA_IIS	(417.0 / 372.0) 36587	(7.85 , N/A) (N/A , -0.01 , N/A)	379.7	N/A	1.0136 [1.0000]	101.4% { 9.5% }			
13C5_PFNA_IIS	(468.0 / 423.0) 31798	(8.58 , N/A) (N/A , -0.01 , N/A)	210.9	N/A	1.0813 [1.0000]	108.1% { 10.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 37413	(9.26 , N/A) (N/A , -0.01 , N/A)	309.2	N/A	1.0983 [1.0000]	109.8% { 10.7% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 57955	(7.95 , N/A) (N/A , -0.02 , N/A)	572.2	N/A	0.9578 [1.0000]	95.8% { 9.2% }			
13C4_PFOS_IIS	(503.0 / 79.9) 73325	(9.40 , N/A) (N/A , -0.01 , N/A)	105.9	N/A	1.1372 [1.0000]	113.7% { 11.5% }			
13C4_PFBA_EIS	(217.0 / 172.0) 317229	(3.64 , N/A) (N/A , 0.00 , N/A)	783.7	N/A	1.4106 [1.6000]	88.2% { 20.4% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 235441	(4.94 , N/A) (N/A , 0.01 , N/A)	508.7	N/A	0.7568 [0.8000]	94.6% { 19.2% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 140394	(6.10 , N/A) (N/A , 0.00 , N/A)	344.2	N/A	0.3327 [0.4000]	83.2% { 17.4% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 129257	(7.02 , N/A) (N/A , -0.01 , N/A)	407.9	N/A	0.3526 [0.4000]	88.2% { 16.7% }			
13C8_PFOA_EIS	(421.0 / 376.0) 147685	(7.85 , N/A) (N/A , -0.01 , N/A)	668.0	N/A	0.3945 [0.4000]	98.6% { 20.1% }			
13C9_PFNA_EIS	(472.0 / 427.0) 64891	(8.58 , N/A) (N/A , -0.01 , N/A)	269.0	N/A	0.1964 [0.2000]	98.2% { 20.4% }			
13C6_PFDA_EIS	(519.0 / 474.0) 78457	(9.25 , N/A) (N/A , -0.02 , N/A)	251.1	N/A	0.1736 [0.2000]	86.8% { 20.5% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 114412	(9.70 , N/A) (N/A , -0.01 , N/A)	329.9	N/A	0.2059 [0.2000]	102.9% { 21.1% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 89534	(9.88 , N/A) (N/A , 0.00 , N/A)	289.5	N/A	0.1614 [0.2000]	80.7% { 15.5% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 58197	(10.11 , N/A) (N/A , -0.01 , N/A)	305.5	N/A	0.1656 [0.2000]	82.8% { 15.4% }			
13C3_PFBs_EIS	(302.0 / 80.0) 378122	(6.04 , N/A) (N/A , 0.00 , N/A)	533.8	N/A	0.4311 [0.4000]	107.8% { 19.2% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 194249	(7.96 , N/A) (N/A , -0.01 , N/A)	509.1	N/A	0.4090 [0.4000]	102.3% { 19.6% }			
13C8_PFOS_EIS	(507.0 / 80.0) 317751	(9.40 , N/A) (N/A , -0.01 , N/A)	279.8	N/A	0.3596 [0.4000]	89.9% { 20.7% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 127581	(5.77 , N/A) (N/A , 0.00 , N/A)	509.4	N/A	1.2875 [0.8000]	160.9% { 25.6% }			S2,
13C2_6:2FTS_EIS	(429.0 / 81.0) 152451	(7.51 , N/A) (N/A , -0.01 , N/A)	588.8	N/A	1.1627 [0.8000]	145.3% { 26.2% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 130385	(8.92 , N/A) (N/A , -0.01 , N/A)	368.3	N/A	0.7889 [0.8000]	98.6% { 20.9% }			
13C8_PFOA_EIS	(506.0 / 78.0) 417104	(10.17 , N/A) (N/A , -0.01 , N/A)	426.2	N/A	0.4044 [0.4000]	101.1% { 21.9% }			
D3_NMeFOA_EIS	(515.0 / 169.0) 48813	(10.61 , N/A) (N/A , -0.01 , N/A)	397.4	N/A	0.2503 [0.4000]	62.6% { 13.1% }			
D5_NEtFOA_EIS	(531.0 / 169.0) 43301	(10.70 , N/A) (N/A , -0.01 , N/A)	391.0	N/A	0.2424 [0.4000]	60.6% { 12.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 196618	(9.47, N/A) (N/A, -0.01, N/A)	289.0	N/A	0.7072 [0.8000]	88.4% { 19.5% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 173425	(9.66, N/A) (N/A, -0.01, N/A)	138.8	N/A	0.7845 [0.8000]	98.1% { 19.4% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 145165	(10.58, N/A) (N/A, -0.01, N/A)	421.4	N/A	3.4068 [4.0000]	85.2% { 14.6% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 62253	(10.67, N/A) (N/A, -0.01, N/A)	629.9	N/A	3.1683 [4.0000]	79.2% { 13.2% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 346779	(6.44, N/A) (N/A, -0.01, N/A)	651.9	N/A	1.4690 [1.6000]	91.8% { 19.8% }			

FORM I

ANALYSIS DATA SHEET

ADIT6-DU08-SON01MI-22DEC

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	22L0126-04
		File ID:	S2022-12-30A (42)
Sampled:	12/15/22 11:32	Prepared:	12/27/22 13:57
		Analyzed:	12/31/22 01:05
Solids:	82.02	Preparation:	PFAS Leachates
		Dilution:	1
Initial/Final:	95.54 mL / 2 mL	Instrument:	Saphira
Batch:	BBL0475	Sequence:	SB04022
		Calibration:	2253011

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
PFBA	12	8.4	4.2	1.1	
PFPEA	32	4.2	4.2	0.34	
PFHXA	17	2.1	2.1	0.29	
PFHPA	8.9	2.1	1.0	0.21	
PFOA	4.0	2.1	1.0	0.79	
PFNA	1.4 J	2.1	1.0	0.43	
PFDA	1.0 U	2.1	1.0	0.52	
PFUnA	1.0 U	2.1	1.0	0.84	
PFDOA	1.0 U	2.1	1.0	0.58	
PFTRDA	1.6 U	2.1	1.6	1.0	
PFTEDA	1.0 U	2.1	1.0	1.0	
PFBS	0.22 J	2.1	1.0	0.19	
PFPEs	1.0 U	2.1	1.0	0.33	
PFHXS	2.5	2.1	1.0	0.17	
PFHPS	1.0 U	2.1	1.0	0.27	
PFOS	19	2.1	1.0	0.33	
PFNS	1.0 U	2.1	1.0	0.63	
PFDS	1.0 U	2.1	1.0	0.79	
PFDOS	1.0 U	2.1	1.0	0.63	
4:2FTS	4.2 U	8.4	4.2	1.5	
6:2FTS	8.5	8.4	4.2	1.6	
8:2FTS	4.2 U	8.4	4.2	0.43	
PFOSA	1.0 U	2.1	1.0	0.52	
NMeFOSA	4.2 U	8.4	4.2	2.5	
NEtFOSA	4.2 U	8.4	4.2	2.1	
NMeFOSAA	1.0 U	2.1	1.0	0.58	
NEtFOSAA	1.0 U	2.1	1.0	0.58	
NMeFOSE	6.3 U	8.4	6.3	5.2	
NEtFOSE	6.3 U	8.4	6.3	5.2	
HFPO-DA	2.1 U	4.2	2.1	0.89	

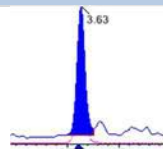
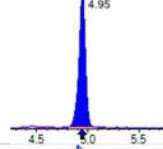
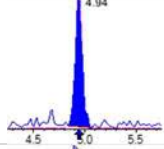
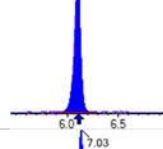
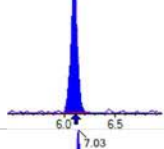
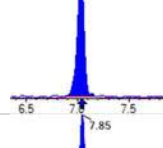
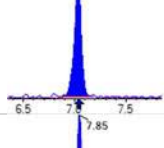
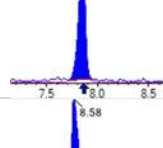
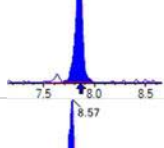
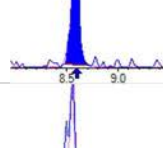
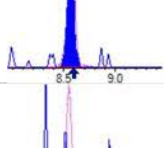
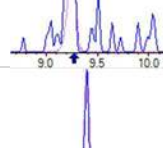
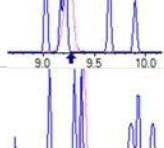
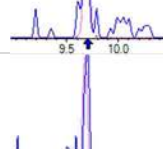
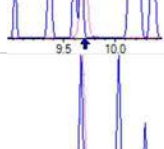
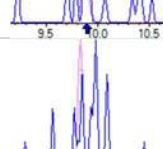
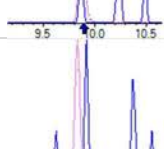
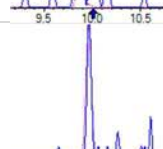
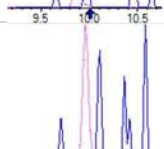
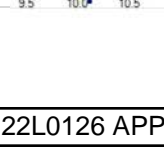
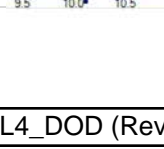
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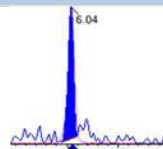
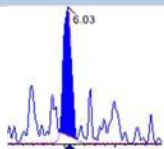
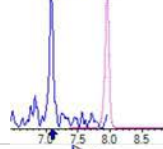
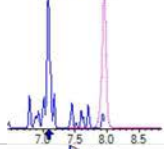
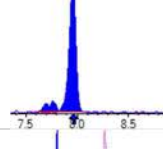
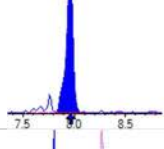
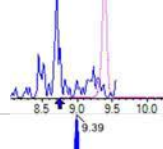
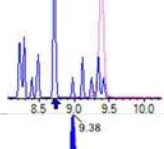
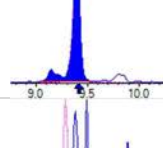
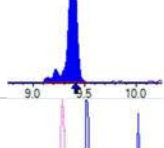
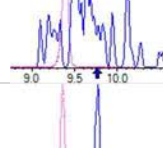
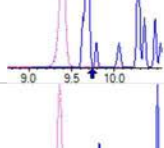
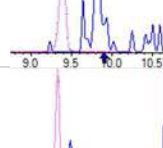
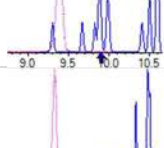
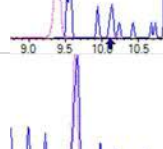
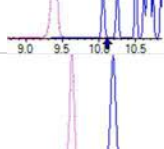
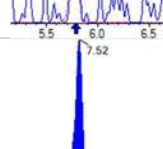
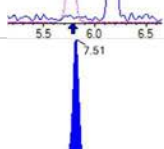
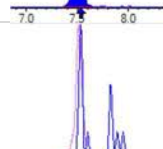
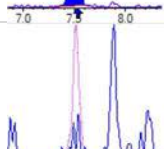

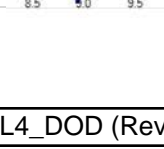
ANALYSIS DATA SHEET

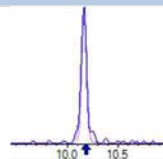
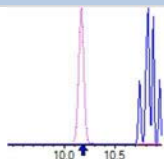
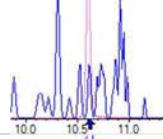
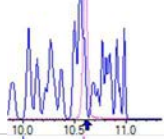
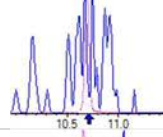
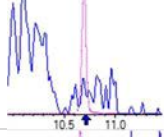
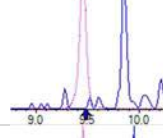
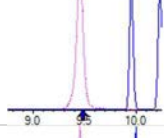
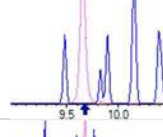
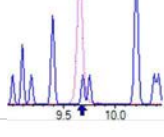
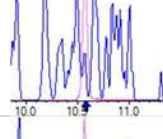
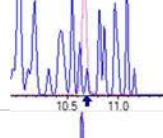
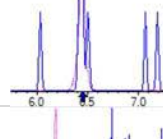
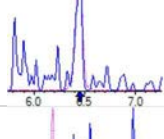
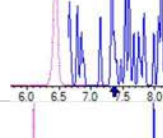
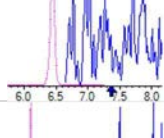
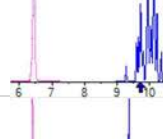
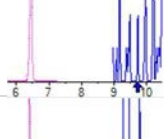
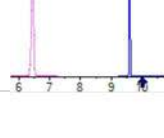
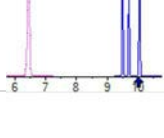
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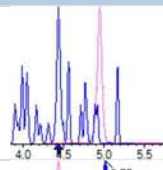
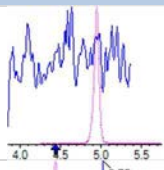
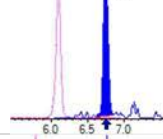
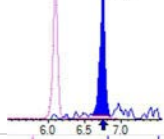
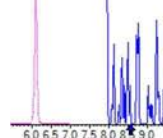
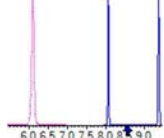
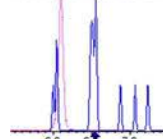
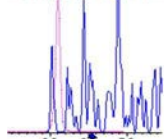
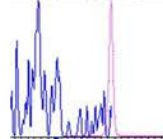
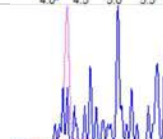
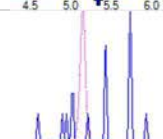
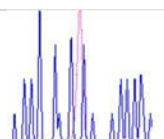
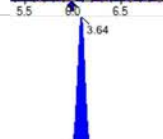
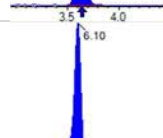
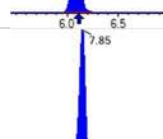
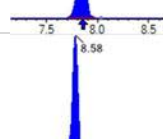
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Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	22L0126-04
		File ID:	S2022-12-30A (42)
Sampled:	12/15/22 11:32	Prepared:	12/27/22 13:57
		Analyzed:	12/31/22 01:05
Solids:	82.02	Preparation:	PFAS Leachates
		Dilution:	1
Initial/Final:	95.54 mL / 2 mL	Instrument:	Saphira
Batch:	BBL0475	Sequence:	SB04022
		Calibration:	2253011

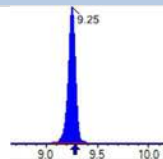
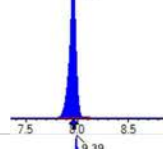
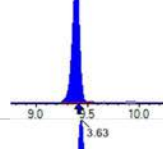
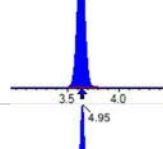
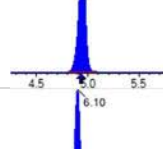
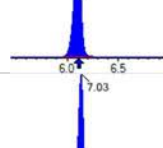
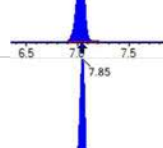
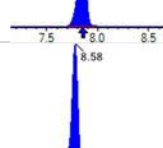
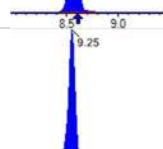
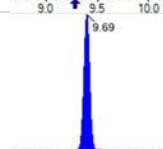
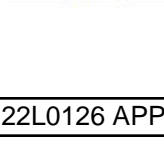
COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
ADONA	2.1 U	4.2	2.1	0.63	
PFEESA	2.1 U	4.2	2.1	0.58	
PFMPA	2.1 U	4.2	2.1	0.28	
PFMBA	2.1 U	4.2	2.1	0.48	
NFDHA	2.1 U	4.2	2.1	1.6	
9CL-PF3ONS	2.1 U	4.2	2.1	1.1	
11CL-PF3OUDS	2.1 U	4.2	2.1	1.1	
3:3FTCA	4.2 U	8.4	4.2	3.0	
5:3FTCA	2.6 J	8.4	4.2	2.3	
7:3FTCA	4.2 U	8.4	4.2	2.9	

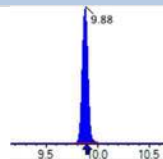
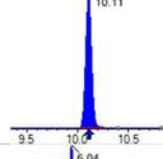
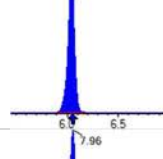
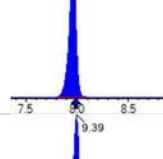
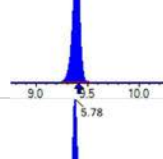
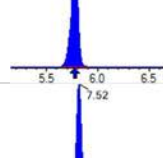
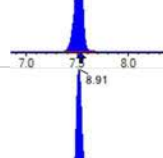
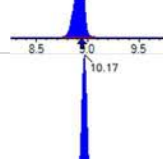
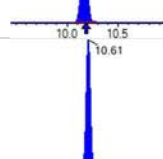
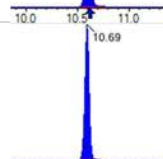
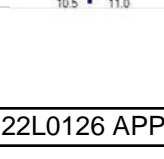
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 111832	(3.63 , 1.00) (0.00 , N/A , 0.0)	122.6	N/A 0.0 0.0	0.5938	N/A			
PFPeA	(263.0 / 219.0) 438105 (263.0 / 69.0) 5238	(4.95 , 1.00) (0.00 , N/A , 0.4)	376.6 66.2	0.0120 115.7 111.7	1.5168	N/A			
PFHxA	(313.0 / 269.0) 337550 (313.0 / 119.0) 32090	(6.10 , 1.00) (0.00 , N/A , 0.3)	332.8 160.4	0.0951 97.7 103.9	0.8152	N/A			
PFHpA	(363.0 / 319.0) 180729 (363.0 / 169.0) 50015	(7.03 , 1.00) (0.00 , N/A , -0.1)	232.5 153.1	0.2767 96.7 98.3	0.4268	N/A			
PFOA	(413.0 / 369.0) 86452 (413.0 / 169.0) 28491	(7.85 , 1.00) (0.00 , N/A , 0.0)	159.4 155.7	0.3296 108.5 98.0	0.1924	N/A			
PFNA	(463.0 / 419.0) 20510 (463.0 / 169.0) 4694	(8.58 , 1.00) (0.00 , N/A , 0.4)	70.6 52.3	0.2289 108.1 114.5	0.0675	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDaA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

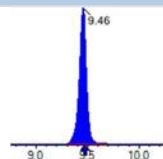

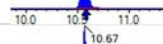


Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 6845 (299.0 / 99.0) 4003	(6.04 , 1.00) (0.00 , N/A , 0.6)	38.2 14.8	0.5848 89.0 96.4	0.0107	N/A			
PFPeS	(349.0 / 80.0) N/A (349.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	(399.0 / 80.0) 105867 (399.0 / 99.0) 30324	(7.96 , 1.00) (0.00 , N/A , -0.2)	288.1 295.4	0.2864 87.9 91.7	0.1178	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) 943845 (499.0 / 99.0) 223062	(9.39 , 1.00) (0.00 , N/A , 0.6)	196.5 434.1	0.2363 113.6 99.0	0.9180	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(699.0 / 80.0) N/A (699.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) 123138 (427.0 / 81.0) 83706	(7.52 , 1.00) (0.00 , N/A , 0.2)	395.4 187.1	0.6798 92.0 81.8	0.4075	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(512.0 / 219.0) N/A (512.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSE	(630.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-PF3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) 7908 (341.0 / 217.0) 14664	(6.75 , 1.11) (N/A , 0.00 , -0.2)	75.7 55.4	1.8544 103.3 120.0	0.1248	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(295.0 / 201.0) N/A (295.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 229363	(3.64 , N/A) (N/A , 0.00 , N/A)	642.4	N/A	1.0651 [1.0000]	106.5% { 113.5% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 394533	(6.10 , N/A) (N/A , 0.00 , N/A)	494.9	N/A	1.0393 [1.0000]	103.9% { 101.2% }			
13C4_PFOA_IIS	(417.0 / 372.0) 394800	(7.85 , N/A) (N/A , -0.01 , N/A)	670.7	N/A	1.0937 [1.0000]	109.4% { 102.9% }			
13C5_PFNA_IIS	(468.0 / 423.0) 320766	(8.58 , N/A) (N/A , -0.01 , N/A)	486.7	N/A	1.0908 [1.0000]	109.1% { 110.0% }			

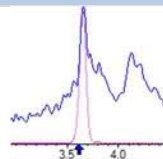
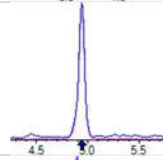
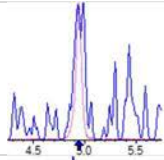
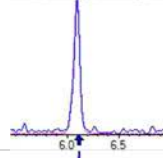
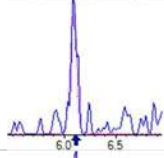
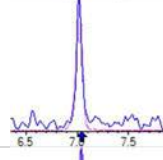
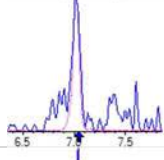
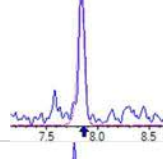
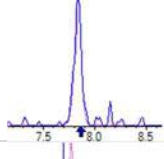
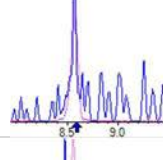
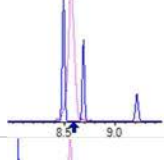
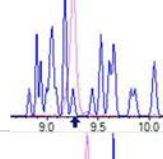
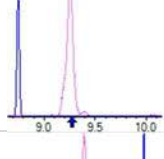
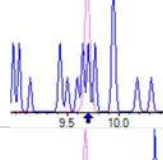
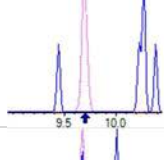
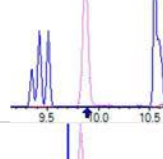
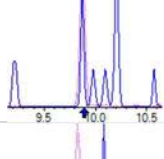
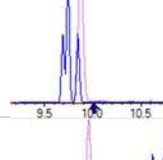
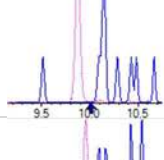
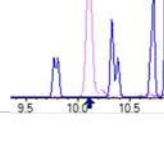
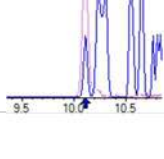
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 414730	(9.25, N/A) (N/A, -0.02, N/A)	219.2	N/A	1.2175 [1.0000]	121.7% { 119.1% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 638358	(7.96, N/A) (N/A, -0.01, N/A)	622.5	N/A	1.0550 [1.0000]	105.5% { 100.8% }			
13C4_PFOS_IIS	(503.0 / 79.9) 765407	(9.39, N/A) (N/A, -0.02, N/A)	397.3	N/A	1.1870 [1.0000]	118.7% { 120.4% }			
13C4_PFBA_EIS	(217.0 / 172.0) 3225239	(3.63, N/A) (N/A, 0.00, N/A)	775.8	N/A	14.0060 [16.0000]	87.5% { 207.4% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 2433458	(4.95, N/A) (N/A, 0.01, N/A)	551.4	N/A	8.1755 [8.0000]	102.2% { 198.4% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 1668976	(6.10, N/A) (N/A, 0.00, N/A)	411.8	N/A	4.1339 [4.0000]	103.3% { 207.4% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 1616382	(7.03, N/A) (N/A, -0.01, N/A)	521.3	N/A	4.6087 [4.0000]	115.2% { 208.6% }			
13C8_PFOA_EIS	(421.0 / 376.0) 1686982	(7.85, N/A) (N/A, -0.01, N/A)	659.4	N/A	4.1763 [4.0000]	104.4% { 229.1% }			
13C9_PFNA_EIS	(472.0 / 427.0) 630062	(8.58, N/A) (N/A, -0.02, N/A)	433.3	N/A	1.8904 [2.0000]	94.5% { 197.6% }			
13C6_PFDA_EIS	(519.0 / 474.0) 926575	(9.25, N/A) (N/A, -0.02, N/A)	513.6	N/A	1.8496 [2.0000]	92.5% { 242.5% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 1214276	(9.69, N/A) (N/A, -0.01, N/A)	446.0	N/A	1.9710 [2.0000]	98.5% { 223.9% }			

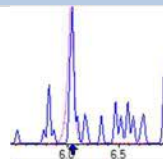
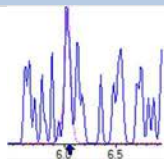
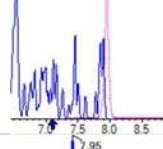
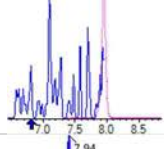
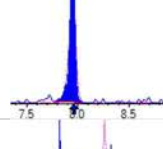
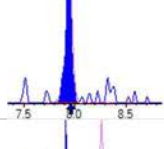
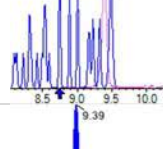
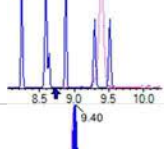
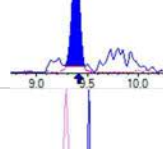
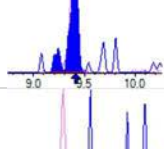
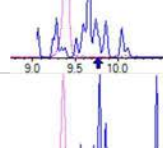
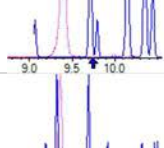
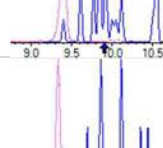
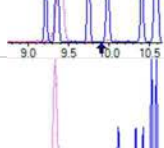
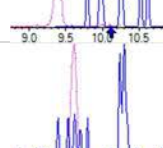
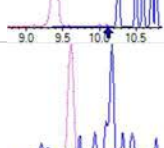
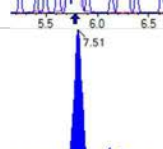
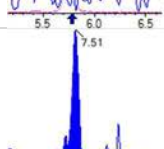
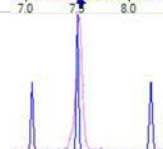
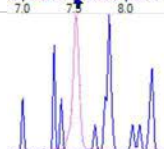
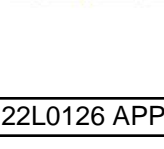
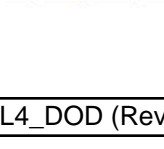
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 1199146	(9.88 , N/A) (N/A , -0.01 , N/A)	824.1	N/A	1.9505 [2.0000]	97.5% { 207.3% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 638111	(10.11 , N/A) (N/A , -0.01 , N/A)	925.3	N/A	1.6381 [2.0000]	81.9% { 168.7% }			
13C3_PFBs_EIS	(302.0 / 80.0) 4022300	(6.04 , N/A) (N/A , 0.00 , N/A)	621.3	N/A	4.1633 [4.0000]	104.1% { 204.5% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 2075112	(7.96 , N/A) (N/A , -0.01 , N/A)	763.2	N/A	3.9667 [4.0000]	99.2% { 209.8% }			
13C8_PFOS_EIS	(507.0 / 80.0) 3531847	(9.39 , N/A) (N/A , -0.02 , N/A)	499.6	N/A	3.8290 [4.0000]	95.7% { 230.0% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 1433713	(5.78 , N/A) (N/A , 0.00 , N/A)	575.8	N/A	13.1351 [8.0000]	164.2% { 288.1% }			S2,
13C2_6:2FTS_EIS	(429.0 / 81.0) 1505849	(7.52 , N/A) (N/A , -0.01 , N/A)	667.1	N/A	10.4268 [8.0000]	130.3% { 258.6% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 1405174	(8.91 , N/A) (N/A , -0.02 , N/A)	575.1	N/A	7.7186 [8.0000]	96.5% { 225.4% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 4343623	(10.17 , N/A) (N/A , -0.01 , N/A)	1331.7	N/A	4.0346 [4.0000]	100.9% { 228.2% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 557900	(10.61 , N/A) (N/A , -0.01 , N/A)	665.4	N/A	2.7404 [4.0000]	68.5% { 150.3% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 523733	(10.69 , N/A) (N/A , -0.01 , N/A)	1315.8	N/A	2.8086 [4.0000]	70.2% { 153.3% }			

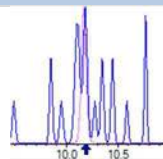
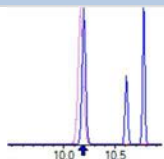
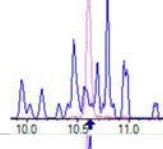
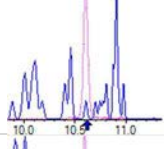
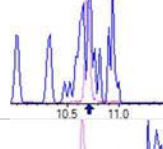
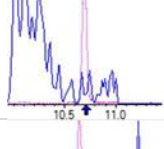
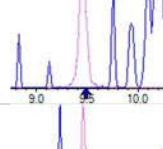
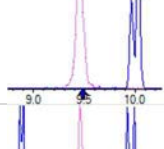
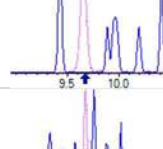
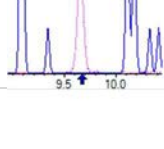
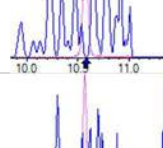
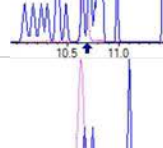
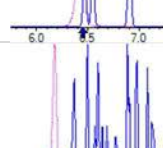
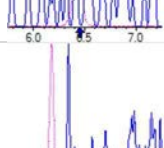
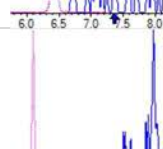
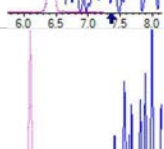
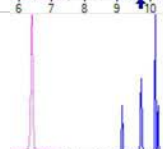
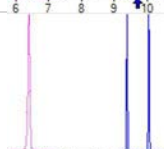
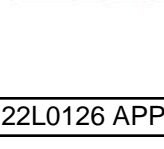
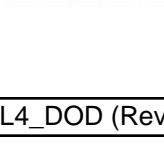
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 2115445	(9.46 , N/A) (N/A , -0.02 , N/A)	318.6	N/A	7.2891 [8.0000]	91.1% { 209.8% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 1941712	(9.65 , N/A) (N/A , -0.01 , N/A)	131.0	N/A	8.4147 [8.0000]	105.2% { 217.2% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 1618747	(10.57 , N/A) (N/A , -0.01 , N/A)	1140.6	N/A	36.3930 [40.0000]	91.0% { 162.7% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 780449	(10.67 , N/A) (N/A , -0.01 , N/A)	1203.4	N/A	38.0505 [40.0000]	95.1% { 166.1% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 3667564	(6.45 , N/A) (N/A , 0.00 , N/A)	811.2	N/A	16.2387 [16.0000]	101.5% { 209.8% }			

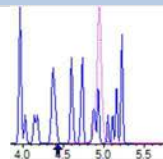
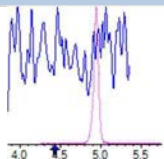
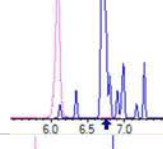
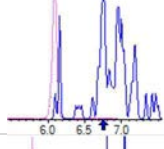
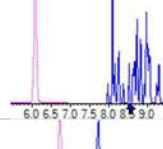
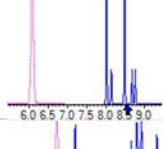
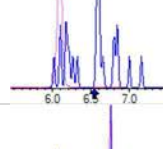
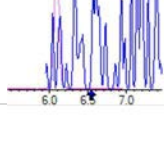
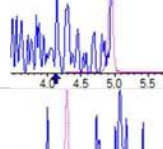
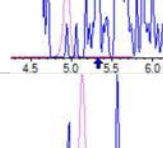
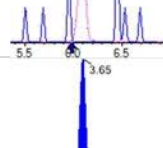
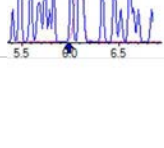
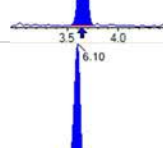
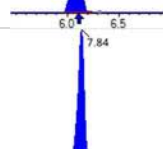
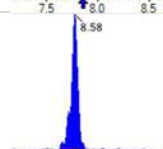
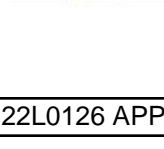
FORM I
ANALYSIS DATA SHEET
ADIT6-DU08-SON01MI-22DEC

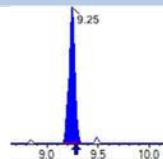
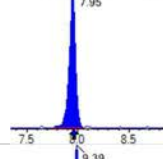
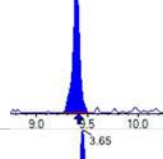
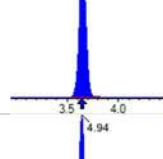
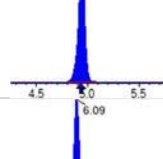
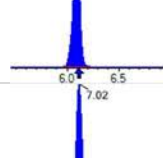
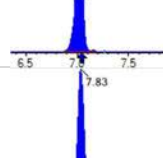
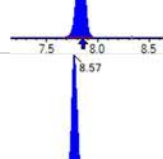
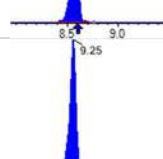
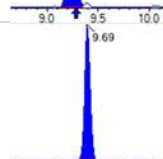

Laboratory:	APPL, LLC	Work Order:	22L0126		
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling		
Matrix:	Solid	Laboratory ID:	22L0126-04RE1	File ID:	S2022-12-30A (43)
Sampled:	12/15/22 11:32	Prepared:	12/27/22 13:57	Analyzed:	12/31/22 01:18
Solids:	82.02	Preparation:	PFAS Leachates	Dilution:	10
Initial/Final:	95.54 mL / 2 mL			Instrument:	Saphira
Batch:	BBL0475	Sequence:	SB04022	Calibration:	2253011

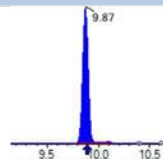
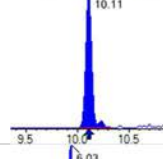
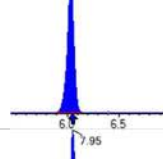
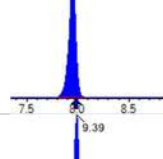
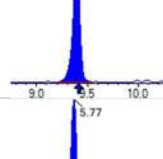
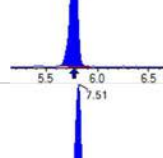
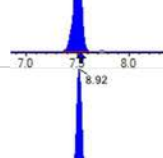
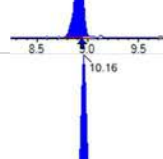
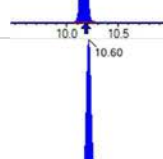
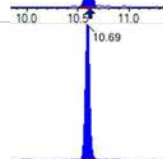
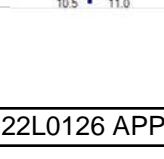
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(263.0 / 219.0) N/A (263.0 / 69.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDaA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

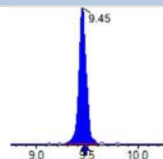
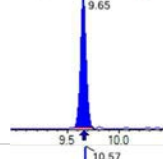
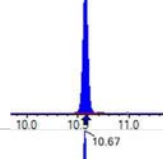
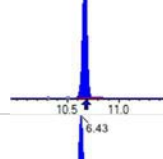
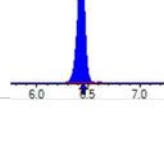
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) N/A (299.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	(349.0 / 80.0) N/A (349.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	(399.0 / 80.0) 9956 (399.0 / 99.0) 3276	(7.95 , 1.00) (0.00 , N/A , 0.5)	135.3 71.7	0.3291 100.9 105.3	0.0114	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) 68750 (499.0 / 99.0) 19296	(9.39 , 1.00) (-0.01 , N/A , -1.0)	54.0 65.4	0.2807 134.9 117.5	0.0738	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(699.0 / 80.0) N/A (699.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) 11937 (427.0 / 81.0) 5780	(7.51 , 1.00) (0.00 , N/A , -0.3)	62.0 35.3	0.4842 65.5 58.3	0.0435	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(512.0 / 219.0) N/A (512.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSE	(630.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-PF3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(295.0 / 201.0) N/A (295.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 22081	(3.65 , N/A) (N/A , 0.02 , N/A)	258.8	N/A	1.0254 [1.0000]	102.5% { 10.9% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 39058	(6.10 , N/A) (N/A , 0.00 , N/A)	379.3	N/A	1.0289 [1.0000]	102.9% { 10.0% }			
13C4_PFOA_IIS	(417.0 / 372.0) 40435	(7.84 , N/A) (N/A , -0.02 , N/A)	352.9	N/A	1.1202 [1.0000]	112.0% { 10.5% }			
13C5_PFNA_IIS	(468.0 / 423.0) 26264	(8.58 , N/A) (N/A , -0.02 , N/A)	168.8	N/A	0.8931 [1.0000]	89.3% { 9.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 37725	(9.25, N/A) (N/A, -0.02, N/A)	409.6	N/A	1.1075 [1.0000]	110.7% { 10.8% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 65182	(7.95, N/A) (N/A, -0.02, N/A)	283.2	N/A	1.0772 [1.0000]	107.7% { 10.3% }			
13C4_PFOS_IIS	(503.0 / 79.9) 71204	(9.39, N/A) (N/A, -0.02, N/A)	104.3	N/A	1.1043 [1.0000]	110.4% { 11.2% }			
13C4_PFBA_EIS	(217.0 / 172.0) 319201	(3.65, N/A) (N/A, 0.02, N/A)	696.5	N/A	1.4398 [1.6000]	90.0% { 20.5% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 239637	(4.94, N/A) (N/A, 0.01, N/A)	612.8	N/A	0.8132 [0.8000]	101.7% { 19.5% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 168536	(6.09, N/A) (N/A, -0.01, N/A)	542.1	N/A	0.4217 [0.4000]	105.4% { 20.9% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 145153	(7.02, N/A) (N/A, -0.02, N/A)	393.8	N/A	0.4181 [0.4000]	104.5% { 18.7% }			
13C8_PFOA_EIS	(421.0 / 376.0) 150221	(7.83, N/A) (N/A, -0.02, N/A)	579.2	N/A	0.3631 [0.4000]	90.8% { 20.4% }			
13C9_PFNA_EIS	(472.0 / 427.0) 65240	(8.57, N/A) (N/A, -0.02, N/A)	274.8	N/A	0.2391 [0.2000]	119.5% { 20.5% }			
13C6_PFDA_EIS	(519.0 / 474.0) 115972	(9.25, N/A) (N/A, -0.02, N/A)	279.5	N/A	0.2545 [0.2000]	127.3% { 30.4% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 122257	(9.69, N/A) (N/A, -0.01, N/A)	8870.0	N/A	0.2182 [0.2000]	109.1% { 22.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 121973	(9.87, N/A) (N/A, -0.01, N/A)	202.5	N/A	0.2181 [0.2000]	109.1% { 21.1% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 57206	(10.11, N/A) (N/A, -0.01, N/A)	219.7	N/A	0.1614 [0.2000]	80.7% { 15.1% }			
13C3_PFBs_EIS	(302.0 / 80.0) 390246	(6.03, N/A) (N/A, -0.01, N/A)	548.5	N/A	0.3956 [0.4000]	98.9% { 19.8% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 201471	(7.95, N/A) (N/A, -0.02, N/A)	748.6	N/A	0.3772 [0.4000]	94.3% { 20.4% }			
13C8_PFOS_EIS	(507.0 / 80.0) 319911	(9.39, N/A) (N/A, -0.02, N/A)	226.3	N/A	0.3728 [0.4000]	93.2% { 20.8% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 119743	(5.77, N/A) (N/A, 0.00, N/A)	360.0	N/A	1.0744 [0.8000]	134.3% { 24.1% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 136884	(7.51, N/A) (N/A, -0.02, N/A)	619.6	N/A	0.9282 [0.8000]	116.0% { 23.5% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 131870	(8.92, N/A) (N/A, -0.02, N/A)	311.8	N/A	0.7094 [0.8000]	88.7% { 21.2% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 453801	(10.16, N/A) (N/A, -0.01, N/A)	750.4	N/A	0.4531 [0.4000]	113.3% { 23.8% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 55905	(10.60, N/A) (N/A, -0.01, N/A)	462.6	N/A	0.2952 [0.4000]	73.8% { 15.1% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 50191	(10.69, N/A) (N/A, -0.01, N/A)	424.7	N/A	0.2893 [0.4000]	72.3% { 14.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 191000	(9.45 , N/A) (N/A , -0.02 , N/A)	255.5	N/A	0.7075 [0.8000]	88.4% { 18.9% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 174928	(9.65 , N/A) (N/A , -0.01 , N/A)	141.4	N/A	0.8149 [0.8000]	101.9% { 19.6% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 159032	(10.57 , N/A) (N/A , -0.01 , N/A)	498.7	N/A	3.8434 [4.0000]	96.1% { 16.0% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 71393	(10.67 , N/A) (N/A , -0.01 , N/A)	633.1	N/A	3.7417 [4.0000]	93.5% { 15.2% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 368472	(6.43 , N/A) (N/A , -0.01 , N/A)	557.6	N/A	1.6480 [1.6000]	103.0% { 21.1% }			

QUALITY CONTROL

SURROGATE SUMMARY SHEET

EPA 1633 SPLP

Client: AECOM
 Work Order: 22L0126
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
ADIT6-DU05-SON01MI-22DEC (22L0126-01) . ng/L				
		Lab File ID: S2022-12-30A (36)		Analyzed: 12/30/22 23:48
13C4-PFBA	339	85.0	20 - 150	
13C5-PFPEA	169	106	20 - 150	
13C5-PFHXA	84.7	111	20 - 150	
13C4-PFHFA	84.7	111	20 - 150	
13C8-PFOA	84.7	93.8	20 - 150	
13C9-PFNA	42.4	101	20 - 150	
13C6-PFDA	42.4	98.1	20 - 150	
13C7-PFUnA	42.4	108	20 - 150	
13C2-PFDOA	42.4	106	20 - 150	
13C2-PFTEDA	42.4	58.0	20 - 150	
13C3-PFBS	84.7	121	20 - 150	
13C3-PFHXS	84.7	110	20 - 150	
13C8-PFOS	84.7	99.2	20 - 150	
13C2-4:2FTS	169	172	20 - 150	*
13C2-6:2FTS	169	129	20 - 150	
13C2-8:2FTS	169	69.5	20 - 150	
13C8-PFOSA	84.7	119	20 - 150	
D5-NETFOSA	84.7	55.2	20 - 150	
D3-NMEFOSA	84.7	62.3	20 - 150	
D3-NMEFOSAA	169	101	20 - 150	
D5-NETFOSAA	169	105	20 - 150	
D7-NMEFOSE	847	81.3	20 - 150	
D9-NETFOSSE	847	73.5	20 - 150	
13C3-HFPO-DA	339	103	20 - 150	
ADIT6-DU05-SON01MI-22DEC (22L0126-01RE1) . ng/L				
		Lab File ID: S2022-12-30A (37)		Analyzed: 12/31/22 00:01
13C2-4:2FTS	169	141	20 - 150	

SURROGATE SUMMARY SHEET

EPA 1633 SPLP

Client: AECOM
 Work Order: 22L0126
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
ADIT6-DU06-SON01MI-22DEC (22L0126-02) . ng/L		Lab File ID: S2022-12-30A (38)		Analyzed: 12/31/22 00:13
13C4-PFBA	328	90.1	20 - 150	
13C5-PFPEA	164	98.6	20 - 150	
13C5-PFHXA	82.0	99.1	20 - 150	
13C4-PFHXA	82.0	100	20 - 150	
13C8-PFOA	82.0	94.5	20 - 150	
13C9-PFNA	41.0	90.6	20 - 150	
13C6-PFDA	41.0	89.8	20 - 150	
13C7-PFUnA	41.0	96.4	20 - 150	
13C2-PFDOA	41.0	96.6	20 - 150	
13C2-PFTEDA	41.0	83.2	20 - 150	
13C3-PFBS	82.0	106	20 - 150	
13C3-PFHXS	82.0	109	20 - 150	
13C8-PFOS	82.0	89.1	20 - 150	
13C2-4:2FTS	164	144	20 - 150	
13C2-6:2FTS	164	129	20 - 150	
13C2-8:2FTS	164	112	20 - 150	
13C8-PFOSA	82.0	99.4	20 - 150	
D5-NETFOSA	82.0	61.4	20 - 150	
D3-NMEFOSA	82.0	61.6	20 - 150	
D3-NMEFOSAA	164	91.1	20 - 150	
D5-NETFOSAA	164	109	20 - 150	
D7-NMEFOSE	820	75.7	20 - 150	
D9-NETFOSSE	820	77.4	20 - 150	
13C3-HFPO-DA	328	94.0	20 - 150	

SURROGATE SUMMARY SHEET

EPA 1633 SPLP

Client: AECOM
 Work Order: 22L0126
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
ADIT6-DU07-SON01MI-22DEC (22L0126-03) . ng/L				
	Lab File ID: S2022-12-30A (40)			Analyzed: 12/31/22 00:39
13C4-PFBA	325	87.4	20 - 150	
13C5-PFPEA	163	89.8	20 - 150	
13C5-PFHXA	81.4	91.7	20 - 150	
13C4-PFHFA	81.4	101	20 - 150	
13C8-PFOA	81.4	92.7	20 - 150	
13C9-PFNA	40.7	98.1	20 - 150	
13C6-PFDA	40.7	93.2	20 - 150	
13C7-PFUnA	40.7	104	20 - 150	
13C2-PFDOA	40.7	99.6	20 - 150	
13C2-PFTEDA	40.7	91.9	20 - 150	
13C3-PFBS	81.4	107	20 - 150	
13C3-PFHXS	81.4	96.3	20 - 150	
13C8-PFOS	81.4	103	20 - 150	
13C2-4:2FTS	163	154	20 - 150	*
13C2-6:2FTS	163	116	20 - 150	
13C2-8:2FTS	163	91.3	20 - 150	
13C8-PFOSA	81.4	109	20 - 150	
D5-NETFOSA	81.4	59.1	20 - 150	
D3-NMEFOSA	81.4	61.8	20 - 150	
D3-NMEFOSAA	163	90.1	20 - 150	
D5-NETFOSAA	163	119	20 - 150	
D7-NMEFOSE	814	85.1	20 - 150	
D9-NETFOSSE	814	92.6	20 - 150	
13C3-HFPO-DA	325	91.6	20 - 150	
ADIT6-DU07-SON01MI-22DEC (22L0126-03RE1) . ng/L				
	Lab File ID: S2022-12-30A (41)			Analyzed: 12/31/22 00:52
13C2-4:2FTS	163	161	20 - 150	*

SURROGATE SUMMARY SHEET

EPA 1633 SPLP

Client: AECOM
 Work Order: 22L0126
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
ADIT6-DU08-SON01MI-22DEC (22L0126-04) . ng/L				
	Lab File ID: S2022-12-30A (42)			Analyzed: 12/31/22 01:05
13C4-PFBA	335	87.5	20 - 150	
13C5-PFPEA	167	102	20 - 150	
13C5-PFHXA	83.7	103	20 - 150	
13C4-PFHFA	83.7	115	20 - 150	
13C8-PFOA	83.7	104	20 - 150	
13C9-PFNA	41.9	94.5	20 - 150	
13C6-PFDA	41.9	92.5	20 - 150	
13C7-PFUnA	41.9	98.5	20 - 150	
13C2-PFDOA	41.9	97.5	20 - 150	
13C2-PFTEDA	41.9	81.9	20 - 150	
13C3-PFBS	83.7	104	20 - 150	
13C3-PFHXS	83.7	99.2	20 - 150	
13C8-PFOS	83.7	95.7	20 - 150	
13C2-4:2FTS	167	164	20 - 150	*
13C2-6:2FTS	167	130	20 - 150	
13C2-8:2FTS	167	96.5	20 - 150	
13C8-PFOSA	83.7	101	20 - 150	
D5-NETFOSA	83.7	70.2	20 - 150	
D3-NMEFOSA	83.7	68.5	20 - 150	
D3-NMEFOSAA	167	91.1	20 - 150	
D5-NETFOSAA	167	105	20 - 150	
D7-NMEFOSE	837	91.0	20 - 150	
D9-NETFOSSE	837	95.1	20 - 150	
13C3-HFPO-DA	335	101	20 - 150	
ADIT6-DU08-SON01MI-22DEC (22L0126-04RE1) . ng/L				
	Lab File ID: S2022-12-30A (43)			Analyzed: 12/31/22 01:18
13C2-4:2FTS	167	134	20 - 150	

SURROGATE SUMMARY SHEET

EPA 1633 SPLP

Client: AECOM
 Work Order: 22L0126
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
Blank (BBL0475-BLK1) . ng/L		Lab File ID: S2022-12-30A (32)		Analyzed: 12/30/22 22:56
13C4-PFBA	320	91.0	20 - 150	
13C5-PFPEA	160	104	20 - 150	
13C5-PFHXA	80.0	109	20 - 150	
13C4-PFHXA	80.0	114	20 - 150	
13C8-PFOA	80.0	101	20 - 150	
13C9-PFNA	40.0	98.5	20 - 150	
13C6-PFDA	40.0	87.6	20 - 150	
13C7-PFUnA	40.0	93.5	20 - 150	
13C2-PFDOA	40.0	98.0	20 - 150	
13C2-PFTEDA	40.0	98.5	20 - 150	
13C3-PFBS	80.0	113	20 - 150	
13C3-PFHXS	80.0	105	20 - 150	
13C8-PFOS	80.0	113	20 - 150	
13C2-4:2FTS	160	154	20 - 150	*
13C2-6:2FTS	160	135	20 - 150	
13C2-8:2FTS	160	103	20 - 150	
13C8-PFOSA	80.0	124	20 - 150	
D5-NETFOSA	80.0	63.5	20 - 150	
D3-NMEFOSA	80.0	74.1	20 - 150	
D3-NMEFOSAA	160	104	20 - 150	
D5-NETFOSAA	160	116	20 - 150	
D7-NMEFOSE	800	105	20 - 150	
D9-NETFOSSE	800	117	20 - 150	
13C3-HFPO-DA	320	103	20 - 150	

SURROGATE SUMMARY SHEET

EPA 1633 SPLP

Client: AECOM
 Work Order: 22L0126
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
LCS (BBL0475-BS1) . ng/L		Lab File ID: S2022-12-27B (20)B		Analyzed: 12/28/22 00:02
13C4-PFBA	160	78.2	20 - 150	
13C5-PFPEA	80.0	77.3	20 - 150	
13C5-PFHXA	40.0	88.3	20 - 150	
13C4-PFHFA	40.0	77.7	20 - 150	
13C8-PFOA	40.0	72.2	20 - 150	
13C9-PFNA	20.0	75.9	20 - 150	
13C6-PFDA	20.0	67.8	20 - 150	
13C7-PFUnA	20.0	80.8	20 - 150	
13C2-PFDOA	20.0	80.6	20 - 150	
13C2-PFTEDA	20.0	75.7	20 - 150	
13C3-PFBS	40.0	81.6	20 - 150	
13C3-PFHXS	40.0	76.0	20 - 150	
13C8-PFOS	40.0	84.6	20 - 150	
13C2-4:2FTS	80.0	87.6	20 - 150	
13C2-6:2FTS	80.0	78.9	20 - 150	
13C2-8:2FTS	80.0	92.8	20 - 150	
13C8-PFOSA	40.0	64.7	20 - 150	
D5-NETFOSA	40.0	41.3	20 - 150	
D3-NMEFOSA	40.0	39.3	20 - 150	
D3-NMEFOSAA	80.0	88.6	20 - 150	
D5-NETFOSAA	80.0	93.4	20 - 150	
D7-NMEFOSE	400	60.2	20 - 150	
D9-NETFOSE	400	65.0	20 - 150	
13C3-HFPO-DA	160	85.3	20 - 150	

SURROGATE SUMMARY SHEET

EPA 1633 SPLP

Client: AECOM
 Work Order: 22L0126
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
MRL Check (BBL0475-MRL1) . ng/L		Lab File ID: S2022-12-27B (21)B		Analyzed: 12/28/22 00:15
13C4-PFBA	160	79.9	20 - 150	
13C5-PFPEA	80.0	75.7	20 - 150	
13C5-PFHXA	40.0	82.0	20 - 150	
13C4-PFHFA	40.0	81.8	20 - 150	
13C8-PFOA	40.0	82.8	20 - 150	
13C9-PFNA	20.0	84.7	20 - 150	
13C6-PFDA	20.0	81.4	20 - 150	
13C7-PFUnA	20.0	94.9	20 - 150	
13C2-PFDOA	20.0	90.5	20 - 150	
13C2-PFTEDA	20.0	105	20 - 150	
13C3-PFBS	40.0	79.7	20 - 150	
13C3-PFHXS	40.0	78.9	20 - 150	
13C8-PFOS	40.0	80.9	20 - 150	
13C2-4:2FTS	80.0	74.2	20 - 150	
13C2-6:2FTS	80.0	86.0	20 - 150	
13C2-8:2FTS	80.0	83.0	20 - 150	
13C8-PFOSA	40.0	63.7	20 - 150	
D5-NETFOSA	40.0	42.1	20 - 150	
D3-NMEFOSA	40.0	38.1	20 - 150	
D3-NMEFOSAA	80.0	82.9	20 - 150	
D5-NETFOSAA	80.0	91.7	20 - 150	
D7-NMEFOSE	400	59.1	20 - 150	
D9-NETFOSE	400	65.0	20 - 150	
13C3-HFPO-DA	160	84.7	20 - 150	

METHOD BLANK SUMMARY

EPA 1633 SPLP

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Blank ID:	BBL0475-BLK1	Batch:	BBL0475
		Prepared:	12/27/2022 13:57

Client Sample ID	Laboratory Sample ID	Lab File ID	Time Analyzed
LCS	BBL0475-BS1	S2022-12-27B (20)B	00:02
MRL Check	BBL0475-MRL1	S2022-12-27B (21)B	00:15
ADIT6-DU05-SON01MI-22DEC	22L0126-01	S2022-12-30A (36)	23:48
DF 10	22L0126-01RE1	S2022-12-30A (37)	00:01
ADIT6-DU06-SON01MI-22DEC	22L0126-02	S2022-12-30A (38)	00:13
ADIT6-DU07-SON01MI-22DEC	22L0126-03	S2022-12-30A (40)	00:39
DF 10	22L0126-03RE1	S2022-12-30A (41)	00:52
ADIT6-DU08-SON01MI-22DEC	22L0126-04	S2022-12-30A (42)	01:05
DF 10	22L0126-04RE1	S2022-12-30A (43)	01:18

ANALYSIS DATA SHEET

Blank

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	BBL0475-BLK1
Sampled:		File ID:	S2022-12-30A (32)
		Prepared:	12/27/22 13:57
		Analyzed:	12/30/22 22:56
Solids:		Preparation:	PFAS Leachates
		Dilution:	1
Batch:	BBL0475	Sequence:	SB04022
		Calibration:	2253011
Column:	1	Instrument:	Saphira

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
PFBA	4.0 U	8.0	4.0	1.0	U
PFPEA	4.0 U	4.0	4.0	0.32	U
PFHXA	2.0 U	2.0	2.0	0.28	U
PFHPA	1.0 U	2.0	1.0	0.20	U
PFOA	1.0 U	2.0	1.0	0.75	U
PFNA	1.0 U	2.0	1.0	0.41	U
PFDA	1.0 U	2.0	1.0	0.50	U
PFUnA	1.0 U	2.0	1.0	0.80	U
PFDOA	1.0 U	2.0	1.0	0.55	U
PFTRDA	1.5 U	2.0	1.5	1.0	U
PFTEDA	1.0 U	2.0	1.0	1.0	U
PFBS	1.0 U	2.0	1.0	0.18	U
PFPEs	1.0 U	2.0	1.0	0.32	U
PFHXS	1.0 U	2.0	1.0	0.16	U
PFHPS	1.0 U	2.0	1.0	0.26	U
PFOS	1.0 U	2.0	1.0	0.32	U
PFNS	1.0 U	2.0	1.0	0.60	U
PFDS	1.0 U	2.0	1.0	0.75	U
PFDOS	1.0 U	2.0	1.0	0.60	U
4:2FTS	4.0 U	8.0	4.0	1.4	U
6:2FTS	4.0 U	8.0	4.0	1.6	U
8:2FTS	4.0 U	8.0	4.0	0.41	U
PFOSA	1.0 U	2.0	1.0	0.50	U
NMeFOSA	4.0 U	8.0	4.0	2.4	U
NEtFOSA	4.0 U	8.0	4.0	2.0	U
NMeFOSAA	1.0 U	2.0	1.0	0.55	U
NEtFOSAA	1.0 U	2.0	1.0	0.55	U
NMeFOSE	6.0 U	8.0	6.0	5.0	U
NEtFOSE	6.0 U	8.0	6.0	5.0	U
HFPO-DA	2.0 U	4.0	2.0	0.85	U

ANALYSIS DATA SHEET

Blank

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	BBL0475-BLK1
Sampled:		File ID:	S2022-12-30A (32)
		Prepared:	12/27/22 13:57
Solids:		Analyzed:	12/30/22 22:56
		Preparation:	PFAS Leachates
Batch:	BBL0475	Dilution:	1
Sequence:	SB04022	Calibration:	2253011
Instrument:	Saphira		
Column:	1		

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
ADONA	2.0 U	4.0	2.0	0.60	U
PFEESA	2.0 U	4.0	2.0	0.55	U
PFMPA	2.0 U	4.0	2.0	0.27	U
PFMBA	2.0 U	4.0	2.0	0.46	U
NFDHA	2.0 U	4.0	2.0	1.5	U
9CL-PF3ONS	2.0 U	4.0	2.0	1.0	U
11CL-PF3OUDS	2.0 U	4.0	2.0	1.0	U
3:3FTCA	4.0 U	8.0	4.0	2.8	U
5:3FTCA	4.0 U	8.0	4.0	2.2	U
7:3FTCA	4.0 U	8.0	4.0	2.8	U

LCS / LCS DUPLICATE RECOVERY

EPA 1633 SPLP

Laboratory: APPL, LLC

Work Order: 22L0126

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Matrix: Solid

Preparation: PFAS Leachates

Batch: BBL0475

Laboratory ID: BBL0475-BS1

Column:

ANALYTE	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC.	QC LIMITS REC.
PFBA	80.0	98.1	123	40 - 150
PFPEA	40.0	46.2	115	40 - 150
PFHXA	20.0	21.3	107	40 - 150
PFHPA	20.0	24.6	123	40 - 150
PFOA	20.0	26.9	134	40 - 150
PFNA	20.0	26.9	134	40 - 150
PFDA	20.0	22.8	114	40 - 150
PFUnA	20.0	24.7	123	40 - 150
PFDOA	20.0	22.1	110	40 - 150
PFTTDA	20.0	23.1	115	40 - 150
PFTEDA	20.0	23.1	115	40 - 150
PFBS	17.7	20.2	114	40 - 150
PFPEs	18.8	25.7	137	40 - 150
PFHXS	18.3	23.0	126	40 - 150
PFHPS	19.1	20.8	109	40 - 150
PFOS	18.6	18.9	102	40 - 150
PFNS	19.2	21.8	113	40 - 150
PFDS	19.3	21.4	111	40 - 150
PFDOS	19.4	23.3	120	40 - 150
4:2FTS	75.0	90.3	120	40 - 150
6:2FTS	76.0	104	137	40 - 150
8:2FTS	76.8	99.3	129	40 - 150
PFOSA	20.0	24.0	120	40 - 150
NMeFOSA	80.0	100	125	40 - 150
NEtFOSA	80.0	98.7	123	40 - 150
NMeFOSAA	20.0	20.2	101	40 - 150
NEtFOSAA	20.0	22.2	111	40 - 150
NMeFOSE	80.0	91.0	114	40 - 150
NEtFOSE	80.0	92.3	115	40 - 150
HFPO-DA	40.0	46.2	115	40 - 150
ADONA	37.8	43.3	115	40 - 150
PFEESA	35.6	36.5	103	40 - 150
PFMPA	40.0	48.3	121	40 - 150
PFMBA	40.0	49.1	123	40 - 150

LCS / LCS DUPLICATE RECOVERY**EPA 1633 SPLP**

Laboratory: APPL, LLC

Work Order: 22L0126

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Matrix: Solid

Preparation: PFAS Leachates

Batch: BBL0475

Laboratory ID: BBL0475-BS1

Column:

ANALYTE	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC.	QC LIMITS REC.
NFDHA	40.0	44.7	112	40 - 150
9CL-PF3ONS	37.4	51.8	139	40 - 150
11CL-PF3OUDS	37.8	48.5	128	40 - 150
3:3FTCA	80.0	87.8	110	40 - 150
5:3FTCA	80.0	81.8	102	40 - 150
7:3FTCA	80.0	89.7	112	40 - 150

CALIBRATION SUMMARY

Analyte	(Q1 / Q3)	Internal Standard	Multiplier	AcidFactor	Function	Qualifier
PFBA	(213.0 / 169.0)	13C4_PFBA_EIS	4.0000	1.0000	y = 0.41929 x (std. dev. = 0.02329) (weighting: None)	%RSE=5.6
PFPeA	(263.0 / 219.0)	13C5_PFPeA_EIS	2.0000	1.0000	y = 0.42720 x (std. dev. = 0.02079) (weighting: None)	%RSE=4.9
PFHxA	(313.0 / 269.0)	13C5_PFHxA_EIS	1.0000	1.0000	y = 0.45552 x (std. dev. = 0.02835) (weighting: None)	%RSE=6.2
PFHpA	(363.0 / 319.0)	13C4_PFHpA_EIS	1.0000	1.0000	y = 0.47886 x (std. dev. = 0.05269) (weighting: None)	%RSE=11.0
PFOA	(413.0 / 369.0)	13C8_PFOA_EIS	1.0000	1.0000	y = 0.46448 x (std. dev. = 0.02628) (weighting: None)	%RSE=5.7
PFNA	(463.0 / 419.0)	13C9_PFNA_EIS	1.0000	1.0000	y = 0.90558 x (std. dev. = 0.04258) (weighting: None)	%RSE=4.7
PFDA	(513.0 / 469.0)	13C6_PFDA_EIS	1.0000	1.0000	y = 0.89061 x (std. dev. = 0.09718) (weighting: None)	%RSE=10.9
PFUnA	(563.0 / 519.0)	13C7_PFUnA_EIS	1.0000	1.0000	y = 0.79188 x (std. dev. = 0.04851) (weighting: None)	%RSE=6.1
PFDoA	(613.0 / 569.0)	13C2_PFDoA_EIS	1.0000	1.0000	y = 0.85703 x (std. dev. = 0.09108) (weighting: None)	%RSE=10.6
PFTTrDA	(663.0 / 619.0)	13C2_PFDoA_EIS	1.0000	1.0000	y = 0.72441 x (std. dev. = 0.05281) (weighting: None)	%RSE=7.3
PFTeDA	(713.0 / 669.0)	13C2_PFTeDA_EIS	1.0000	1.0000	y = 0.90826 x (std. dev. = 0.10286) (weighting: None)	%RSE=11.3
PFBS	(299.0 / 80.0)	13C3_PFBS_EIS	1.0000	0.8847	y = 0.24675 x (std. dev. = 0.01896) (weighting: None)	%RSE=7.7
PFPeS	(349.0 / 80.0)	13C3_PFHxS_EIS	1.0000	0.9384	y = 0.78804 x (std. dev. = 0.06145) (weighting: None)	%RSE=7.8
PFHxS	(399.0 / 80.0)	13C3_PFHxS_EIS	1.0000	0.9110	y = 0.70012 x (std. dev. = 0.04475) (weighting: None)	%RSE=6.4
PFHpS	(449.0 / 80.0)	13C8_PFOS_EIS	1.0000	0.9514	y = 0.45254 x (std. dev. = 0.03021) (weighting: None)	%RSE=6.7
PFOS	(499.0 / 80.0)	13C8_PFOS_EIS	1.0000	0.9275	y = 0.53808 x (std. dev. = 0.03923) (weighting: None)	%RSE=7.3
PFNS	(549.0 / 80.0)	13C8_PFOS_EIS	1.0000	0.9599	y = 0.55489 x (std. dev. = 0.06523) (weighting: None)	%RSE=11.8
PFDS	(599.0 / 80.0)	13C8_PFOS_EIS	1.0000	0.9631	y = 0.68078 x (std. dev. = 0.08302) (weighting: None)	%RSE=12.2
PFDoS	(699.0 / 80.0)	13C8_PFOS_EIS	1.0000	0.9696	y = 0.27376 x (std. dev. = 0.01722) (weighting: None)	%RSE=6.3
4:2FTS	(327.0 / 307.0)	13C2_4:2FTS_EIS	4.0000	0.9345	y = 2.66614 x (std. dev. = 0.21073) (weighting: None)	%RSE=7.9
6:2FTS	(427.0 / 407.0)	13C2_6:2FTS_EIS	4.0000	0.9490	y = 1.29894 x (std. dev. = 0.12486) (weighting: None)	%RSE=9.6
8:2FTS	(527.0 / 507.0)	13C2_8:2FTS_EIS	4.0000	0.9583	y = 1.29107 x (std. dev. = 0.18142) (weighting: None)	%RSE=14.1
PFOSA	(498.0 / 78.0)	13C8_PFOSA_EIS	1.0000	1.0000	y = 0.47988 x (std. dev. = 0.04428) (weighting: None)	%RSE=9.2
NMeFOSA	(512.0 / 219.0)	D3_NMeFOSA_EIS	4.0000	1.0000	y = 1.73979 x (std. dev. = 0.23696) (weighting: None)	%RSE=13.6
NEiFOSA	(526.0 / 219.0)	D5_NEiFOSA_EIS	4.0000	1.0000	y = 1.83827 x (std. dev. = 0.15160) (weighting: None)	%RSE=8.2
NMeFOSAA	(570.0 / 419.0)	D3_MeFOSAA_EIS	1.0000	1.0000	y = 0.20760 x (std. dev. = 0.02006) (weighting: None)	%RSE=9.7
NEiFOSAA	(584.0 / 419.0)	D5_EiFOSAA_EIS	1.0000	1.0000	y = 0.21680 x (std. dev. = 0.02253) (weighting: None)	%RSE=10.4
NMeFOSE	(616.0 / 59.0)	D7_NMeFOSE_EIS	4.0000	1.0000	y = 0.22581 x (std. dev. = 0.01671) (weighting: None)	%RSE=7.4
NEiFOSE	(630.0 / 59.0)	D9_NEiFOSE_EIS	4.0000	1.0000	y = 0.07584 x (std. dev. = 0.00744) (weighting: None)	%RSE=9.8
HFPO-DA	(285.0 / 169.0)	13C3_HFPODA_EIS	2.0000	1.0000	y = 0.15345 x (std. dev. = 0.00632) (weighting: None)	%RSE=4.1
ADONA	(377.0 / 85.0)	13C3_HFPODA_EIS	2.0000	0.9427	y = 0.61946 x (std. dev. = 0.04933) (weighting: None)	%RSE=8.0
9Cl-Pf3ONS	(531.0 / 351.0)	13C3_HFPODA_EIS	2.0000	0.9333	y = 1.60954 x (std. dev. = 0.15254) (weighting: None)	%RSE=9.5
11Cl-Pf3OUDS	(631.0 / 451.0)	13C3_HFPODA_EIS	2.0000	0.9432	y = 0.85035 x (std. dev. = 0.09071) (weighting: None)	%RSE=10.7
3:3FTCA	(241.0 / 177.0)	13C5_PFPeA_EIS	4.0000	1.0000	y = 0.02990 x (std. dev. = 0.00358) (weighting: None)	%RSE=12.0
5:3FTCA	(341.0 / 236.7)	13C5_PFHxA_EIS	4.0000	1.0000	y = 0.27947 x (std. dev. = 0.02031) (weighting: None)	%RSE=7.3
7:3FTCA	(441.0 / 317.0)	13C5_PFHxA_EIS	4.0000	1.0000	y = 0.34429 x (std. dev. = 0.03222) (weighting: None)	%RSE=9.4
PFEESA	(315.0 / 135.0)	13C5_PFHxA_EIS	2.0000	0.8925	y = 0.80979 x (std. dev. = 0.04055) (weighting: None)	%RSE=5.0
PFMPA	(229.0 / 85.0)	13C5_PFPeA_EIS	2.0000	1.0000	y = 0.12964 x (std. dev. = 0.00775) (weighting: None)	%RSE=6.0
PFMBA	(279.0 / 85.0)	13C5_PFPeA_EIS	2.0000	1.0000	y = 0.33939 x (std. dev. = 0.01964) (weighting: None)	%RSE=5.8
NFDHA	(295.0 / 201.0)	13C5_PFHxA_EIS	2.0000	1.0000	y = 0.43560 x (std. dev. = 0.01759) (weighting: None)	%RSE=4.0
13C3_PFBA_IIS	(216.0 / 172.0)	13C3_PFBA_IIS	1.0000	1.0000	y = 270317.4835 x	%RSD=9.5
13C2_PFHxA_IIS	(315.0 / 270.0)	13C2_PFHxA_IIS	1.0000	1.0000	y = 397129.3476 x	%RSD=7.0
13C4_PFOA_IIS	(417.0 / 372.0)	13C4_PFOA_IIS	1.0000	1.0000	y = 399486.5252 x	%RSD=4.8
13C5_PFNA_IIS	(468.0 / 423.0)	13C5_PFNA_IIS	1.0000	1.0000	y = 330557.8979 x	%RSD=8.7
13C2_PFDA_IIS	(515.0 / 470.1)	13C2_PFDA_IIS	1.0000	1.0000	y = 357076.3967 x	%RSD=9.2
18O2_PFHxS_IIS	(403.0 / 83.9)	18O2_PFHxS_IIS	1.0000	1.0000	y = 697456.7746 x	%RSD=5.3
13C4_PFOS_IIS	(503.0 / 79.9)	13C4_PFOS_IIS	1.0000	1.0000	y = 689562.2282 x	%RSD=9.5

Analyte	(Q1 / Q3)	Internal Standard	Multiplier	AcidFactor	Function	Qualifier
13C4_PFBA_EIS	(217.0 / 172.0)	13C3_PFBA_IIS	8.0000	1.0000	y = 8.5969 x	%RSD=3.8
13C5_PFPaA_EIS	(268.0 / 223.0)	13C2_PFHxA_IIS	4.0000	1.0000	y = 3.6555 x	%RSD=9.1
13C5_PFHxA_EIS	(318.0 / 273.0)	13C2_PFHxA_IIS	2.0000	1.0000	y = 2.2245 x	%RSD=9.4
13C4_PFHpA_EIS	(367.0 / 322.0)	13C2_PFHxA_IIS	2.0000	1.0000	y = 1.9876 x	%RSD=7.8
13C8_PFOA_EIS	(421.0 / 376.0)	13C4_PFOA_IIS	2.0000	1.0000	y = 2.1916 x	%RSD=6.2
13C9_PFNA_EIS	(472.0 / 427.0)	13C5_PFNA_IIS	1.0000	1.0000	y = 1.1008 x	%RSD=4.2
13C6_PFDA_EIS	(519.0 / 474.0)	13C2_PFDA_IIS	1.0000	1.0000	y = 1.3082 x	%RSD=9.6
13C7_PFUaA_EIS	(570.0 / 525.0)	13C2_PFDA_IIS	1.0000	1.0000	y = 1.5853 x	%RSD=11.6
13C2_PFDaA_EIS	(615.0 / 570.0)	13C2_PFDA_IIS	1.0000	1.0000	y = 1.7449 x	%RSD=15.1
13C2_PFTeDA_EIS	(715.0 / 670.0)	13C2_PFDA_IIS	1.0000	1.0000	y = 1.1517 x	%RSD=20.6
13C3_PFBS_EIS	(302.0 / 80.0)	18O2_PFHxS_IIS	2.0000	1.0000	y = 3.3678 x	%RSD=7.4
13C3_PFHxS_EIS	(402.0 / 80.0)	18O2_PFHxS_IIS	2.0000	1.0000	y = 1.7877 x	%RSD=6.8
13C8_PFOS_EIS	(507.0 / 80.0)	13C4_PFOS_IIS	2.0000	1.0000	y = 2.5902 x	%RSD=8.8
13C2_4:2FTS_EIS	(329.0 / 81.0)	18O2_PFHxS_IIS	4.0000	1.0000	y = 0.7932 x	%RSD=12.7
13C2_6:2FTS_EIS	(429.0 / 81.0)	18O2_PFHxS_IIS	4.0000	1.0000	y = 0.9858 x	%RSD=13.3
13C2_8:2FTS_EIS	(529.0 / 81.0)	18O2_PFHxS_IIS	4.0000	1.0000	y = 0.9718 x	%RSD=8.0
13C8_PFOSA_EIS	(506.0 / 78.0)	13C4_PFOS_IIS	2.0000	1.0000	y = 3.4438 x	%RSD=13.0
D3_NMeFOSA_EIS	(515.0 / 169.0)	13C4_PFOS_IIS	2.0000	1.0000	y = 0.6679 x	%RSD=10.7
D5_NeIFOSA_EIS	(531.0 / 169.0)	13C4_PFOS_IIS	2.0000	1.0000	y = 0.5951 x	%RSD=8.0
D3_MeFOSAA_EIS	(573.0 / 419.0)	13C4_PFOS_IIS	4.0000	1.0000	y = 1.4172 x	%RSD=10.5
D5_EiFOSAA_EIS	(589.0 / 419.0)	13C4_PFOS_IIS	4.0000	1.0000	y = 1.2138 x	%RSD=15.3
D7_NMeFOSE_EIS	(623.0 / 58.9)	13C4_PFOS_IIS	20.0000	1.0000	y = 1.0700 x	%RSD=7.0
D9_NeIFOSE_EIS	(639.0 / 58.9)	13C4_PFOS_IIS	20.0000	1.0000	y = 0.4327 x	%RSD=11.3
13C3_HFPODA_EIS	(287.0 / 169.0)	13C2_PFHxA_IIS	8.0000	1.0000	y = 4.9413 x	%RSD=8.5

x=Concentration Analyte

$$y = \text{Area Ratio} = \frac{\text{Area Analyte}}{\text{Area Internal Standard}}$$

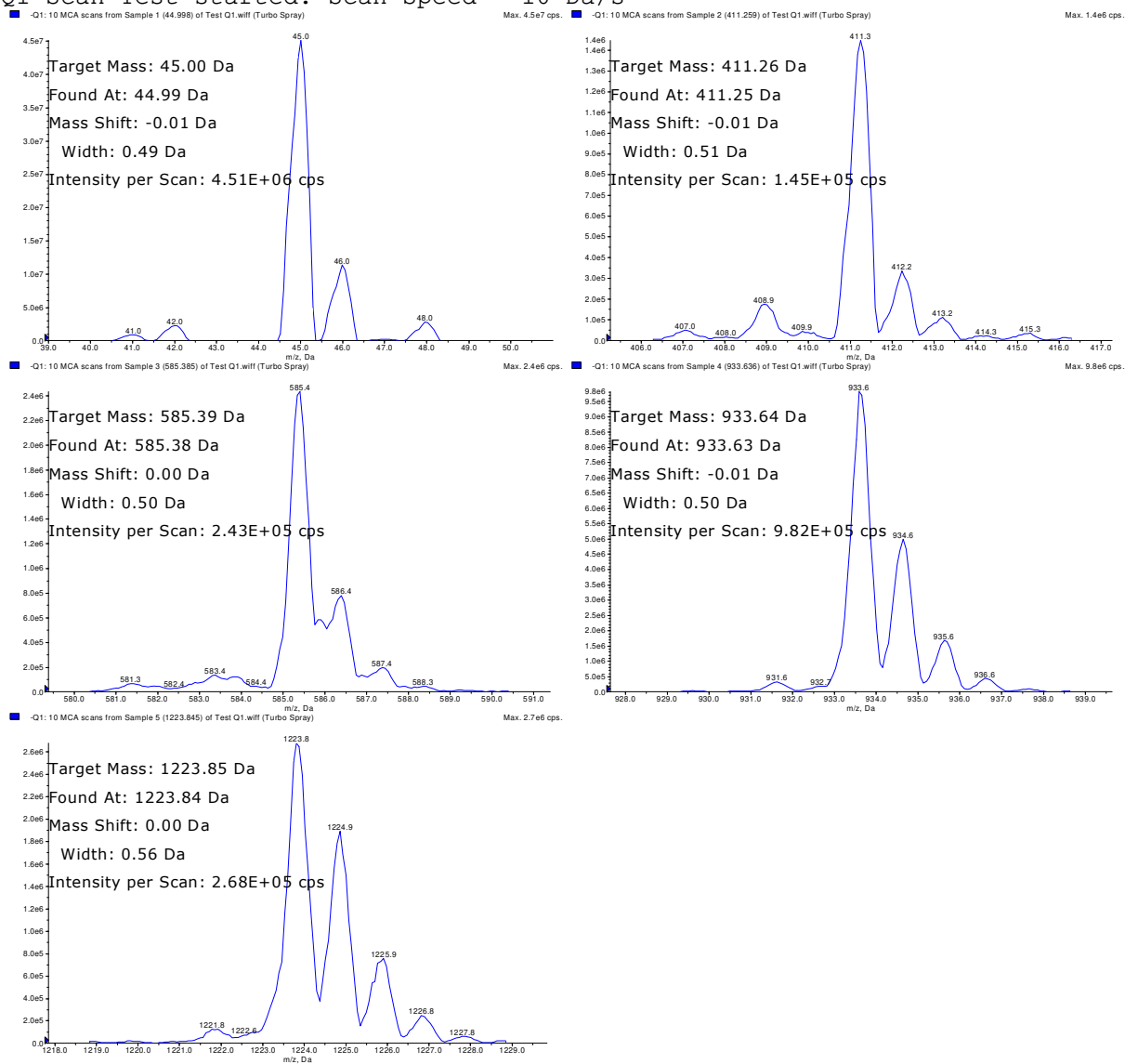
$$\text{Acid Factor} = \frac{\text{Molecular weight Acid}}{\text{Molecular weight Salt}}$$

$$\text{Multiplier} = \frac{\text{Concentration of Analyte}}{\text{Concentration of PFOA}} \text{ in curve standard mix}$$

$$\text{Result} \left(\frac{\text{ng}}{\text{mL}} \right) = x * \text{Multiplier} * \text{Acid Factor}$$

Tune 2021-11-23 Q1 NEG @ 10Da/s

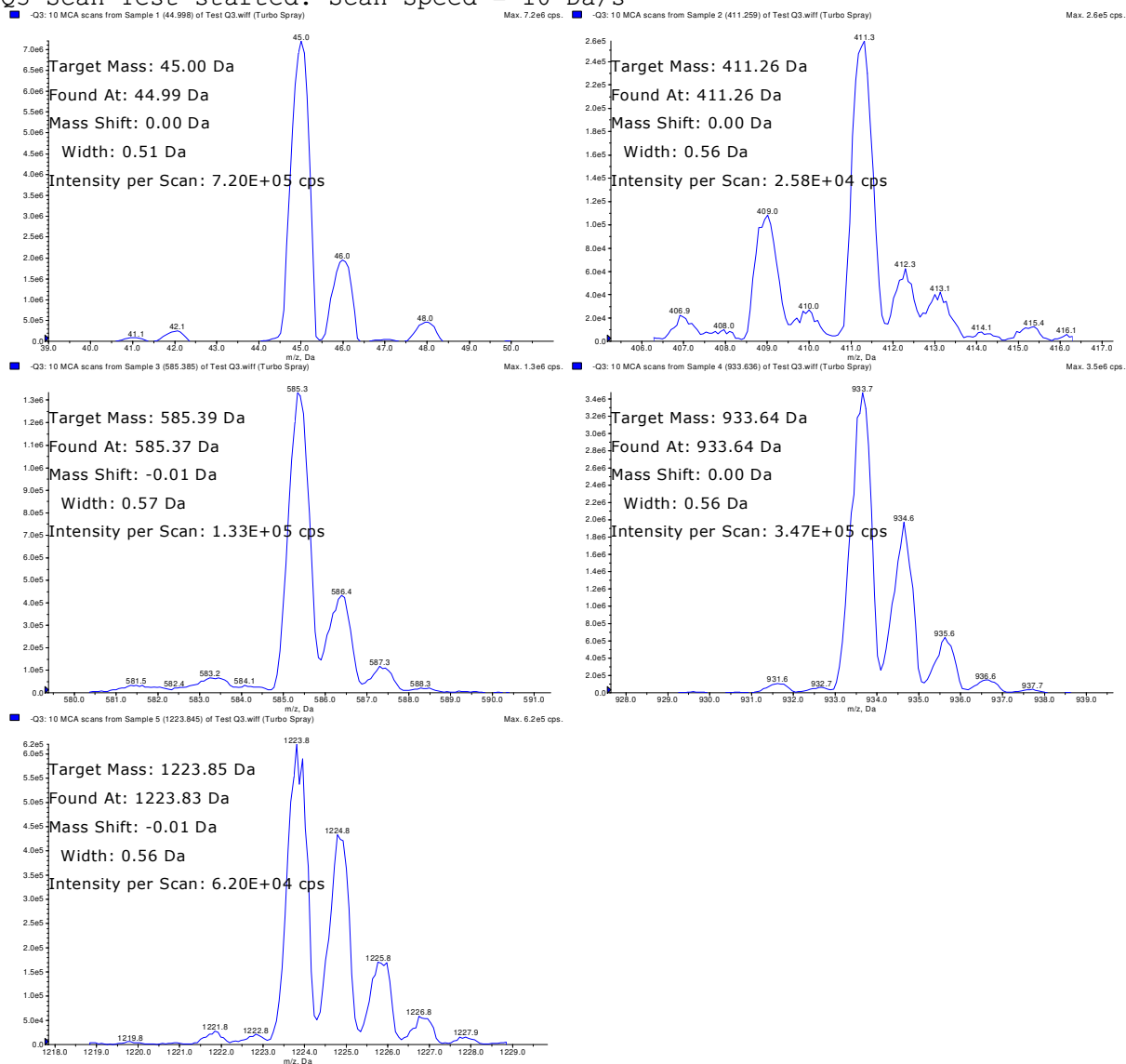
Q1 Scan Test started. Scan Speed = 10 Da/s



Target Mass	Found At	Delta	Width	Intensity	0.4<Width<0.6
45.00	44.99	-0.01	0.49	4.51E+06	PASS
411.26	411.25	-0.01	0.51	1.45E+05	PASS
585.39	585.38	0.00	0.50	2.43E+05	PASS
933.64	933.63	-0.01	0.50	9.82E+05	PASS
1223.85	1223.84	0.00	0.56	2.68E+05	PASS

Tune 2021-11-23 Q3 NEG @ 10Da/s

Q3 Scan Test started. Scan Speed = 10 Da/s



Target Mass	Found At	Delta	Width	Intensity	0.4<Width<0.6
45.00	44.99	0.00	0.51	7.20E+05	PASS
411.26	411.26	0.00	0.56	2.58E+04	PASS
585.39	585.37	-0.01	0.57	1.33E+05	PASS
933.64	933.64	0.00	0.56	3.47E+05	PASS
1223.85	1223.83	-0.01	0.56	6.20E+04	PASS

Analyte	(Q1 / Q3)	Internal Standard	Multiplier	AcidFactor	Function	Qualifier
PFBA	(213.0 / 169.0)	13C4_PFBA_EIS	4.0000	1.0000	y = 0.46716 x (std. dev. = 0.03134) (weighting: None)	%RSE=6.7
PFPeA	(263.0 / 219.0)	13C5_PFPeA_EIS	2.0000	1.0000	y = 0.47477 x (std. dev. = 0.02347) (weighting: None)	%RSE=4.9
PFHxA	(313.0 / 269.0)	13C5_PFHxA_EIS	1.0000	1.0000	y = 0.49617 x (std. dev. = 0.01601) (weighting: None)	%RSE=3.2
PFHpA	(363.0 / 319.0)	13C4_PFHpA_EIS	1.0000	1.0000	y = 0.52394 x (std. dev. = 0.02747) (weighting: None)	%RSE=5.2
PFOA	(413.0 / 369.0)	13C8_PFOA_EIS	1.0000	1.0000	y = 0.53264 x (std. dev. = 0.03029) (weighting: None)	%RSE=5.7
PFNA	(463.0 / 419.0)	13C9_PFNA_EIS	1.0000	1.0000	y = 0.96515 x (std. dev. = 0.11510) (weighting: None)	%RSE=11.9
PFDA	(513.0 / 469.0)	13C6_PFDA_EIS	1.0000	1.0000	y = 0.99166 x (std. dev. = 0.06898) (weighting: None)	%RSE=7.0
PFUnA	(563.0 / 519.0)	13C7_PFUnA_EIS	1.0000	1.0000	y = 0.91260 x (std. dev. = 0.06087) (weighting: None)	%RSE=6.7
PFDaA	(613.0 / 569.0)	13C2_PFDaA_EIS	1.0000	1.0000	y = 0.95836 x (std. dev. = 0.14827) (weighting: None)	%RSE=15.5
PFTTrDA	(663.0 / 619.0)	13C2_PFDaA_EIS	1.0000	1.0000	y = 0.83621 x (std. dev. = 0.14762) (weighting: None)	%RSE=17.7
PFTeDA	(713.0 / 669.0)	13C2_PFTeDA_EIS	1.0000	1.0000	y = 1.01157 x (std. dev. = 0.10486) (weighting: None)	%RSE=10.4
PFBS	(299.0 / 80.0)	13C3_PFBS_EIS	1.0000	0.8847	y = 0.28221 x (std. dev. = 0.01814) (weighting: None)	%RSE=6.4
PFPeS	(349.0 / 80.0)	13C3_PFHxS_EIS	1.0000	0.9384	y = 0.92269 x (std. dev. = 0.08680) (weighting: None)	%RSE=9.4
PFHxS	(399.0 / 80.0)	13C3_PFHxS_EIS	1.0000	0.9110	y = 0.78894 x (std. dev. = 0.05344) (weighting: None)	%RSE=6.8
PFHpS	(449.0 / 80.0)	13C8_PFOS_EIS	1.0000	0.9514	y = 0.48130 x (std. dev. = 0.03657) (weighting: None)	%RSE=7.6
PFOS	(499.0 / 80.0)	13C8_PFOS_EIS	1.0000	0.9275	y = 0.54001 x (std. dev. = 0.03944) (weighting: None)	%RSE=7.3
PFNS	(549.0 / 80.0)	13C8_PFOS_EIS	1.0000	0.9599	y = 0.63351 x (std. dev. = 0.04916) (weighting: None)	%RSE=7.8
PFDS	(599.0 / 80.0)	13C8_PFOS_EIS	1.0000	0.9631	y = 0.76856 x (std. dev. = 0.06549) (weighting: None)	%RSE=8.5
PFDoS	(699.0 / 80.0)	13C8_PFOS_EIS	1.0000	0.9696	y = 0.36436 x (std. dev. = 0.02693) (weighting: None)	%RSE=7.4
4:2FTS	(327.0 / 307.0)	13C2_4:2FTS_EIS	4.0000	0.9345	y = 3.17780 x (std. dev. = 0.28502) (weighting: None)	%RSE=9.0
6:2FTS	(427.0 / 407.0)	13C2_6:2FTS_EIS	4.0000	0.9490	y = 1.52371 x (std. dev. = 0.17052) (weighting: None)	%RSE=11.2
8:2FTS	(527.0 / 507.0)	13C2_8:2FTS_EIS	4.0000	0.9583	y = 1.49481 x (std. dev. = 0.24064) (weighting: None)	%RSE=16.1
PFOSA	(498.0 / 78.0)	13C8_PFOSA_EIS	1.0000	1.0000	y = 0.57985 x (std. dev. = 0.05759) (weighting: None)	%RSE=9.9
NMeFOSA	(512.0 / 219.0)	D3_NMeFOSA_EIS	4.0000	1.0000	y = 1.94281 x (std. dev. = 0.24042) (weighting: None)	%RSE=12.4
NEiFOSA	(526.0 / 219.0)	D5_NEiFOSA_EIS	4.0000	1.0000	y = 1.98380 x (std. dev. = 0.16643) (weighting: None)	%RSE=8.4
NMeFOSAA	(570.0 / 419.0)	D3_MeFOSAA_EIS	1.0000	1.0000	y = 0.22686 x (std. dev. = 0.02481) (weighting: None)	%RSE=10.9
NEiFOSAA	(584.0 / 419.0)	D5_EiFOSAA_EIS	1.0000	1.0000	y = 0.24645 x (std. dev. = 0.03357) (weighting: None)	%RSE=13.6
NMeFOSE	(616.0 / 59.0)	D7_NMeFOSE_EIS	4.0000	1.0000	y = 0.24418 x (std. dev. = 0.01638) (weighting: None)	%RSE=6.7
NEiFOSE	(630.0 / 59.0)	D9_NEiFOSE_EIS	4.0000	1.0000	y = 1.15135e-4 x^2 + 0.10842 x + -0.00219 (r = 0.99964) (weighting: 1 / x)	%RSE=5.7
HFPO-DA	(285.0 / 169.0)	13C3_HFPODA_EIS	2.0000	1.0000	y = 0.17354 x (std. dev. = 0.01053) (weighting: None)	%RSE=6.1
ADONA	(377.0 / 85.0)	13C3_HFPODA_EIS	2.0000	0.9427	y = 0.65193 x (std. dev. = 0.06261) (weighting: None)	%RSE=9.6
9Cl-Pf3ONS	(531.0 / 351.0)	13C3_HFPODA_EIS	2.0000	0.9333	y = 1.76270 x (std. dev. = 0.18956) (weighting: None)	%RSE=10.8
11Cl-PF3OUDS	(631.0 / 451.0)	13C3_HFPODA_EIS	2.0000	0.9432	y = 1.00828 x (std. dev. = 0.10858) (weighting: None)	%RSE=10.8
3:3FTCA	(241.0 / 177.0)	13C5_PFPeA_EIS	4.0000	1.0000	y = 0.03264 x (std. dev. = 0.00312) (weighting: None)	%RSE=9.5
5:3FTCA	(341.0 / 236.7)	13C5_PFHxA_EIS	4.0000	1.0000	y = 0.30377 x (std. dev. = 0.01914) (weighting: None)	%RSE=6.3
7:3FTCA	(441.0 / 317.0)	13C5_PFHxA_EIS	4.0000	1.0000	y = 0.39571 x (std. dev. = 0.02270) (weighting: None)	%RSE=5.7
PFEESA	(315.0 / 135.0)	13C5_PFHxA_EIS	2.0000	0.8925	y = 0.81312 x (std. dev. = 0.07653) (weighting: None)	%RSE=9.4
PFMPA	(229.0 / 85.0)	13C5_PFPeA_EIS	2.0000	1.0000	y = 0.13866 x (std. dev. = 0.01119) (weighting: None)	%RSE=8.1
PFMBA	(279.0 / 85.0)	13C5_PFPeA_EIS	2.0000	1.0000	y = 0.39540 x (std. dev. = 0.02942) (weighting: None)	%RSE=7.4
NFDHA	(295.0 / 201.0)	13C5_PFHxA_EIS	2.0000	1.0000	y = 0.48708 x (std. dev. = 0.02917) (weighting: None)	%RSE=6.0
13C3_PFBA_IIS	(216.0 / 172.0)	13C3_PFBA_IIS	1.0000	1.0000	y = 215351.7500 x	%RSD=7.9
13C2_PFHxA_IIS	(315.0 / 270.0)	13C2_PFHxA_IIS	1.0000	1.0000	y = 379614.2469 x	%RSD=4.2
13C4_PFOA_IIS	(417.0 / 372.0)	13C4_PFOA_IIS	1.0000	1.0000	y = 360969.3315 x	%RSD=5.9
13C5_PFNA_IIS	(468.0 / 423.0)	13C5_PFNA_IIS	1.0000	1.0000	y = 294062.4054 x	%RSD=6.3
13C2_PFDA_IIS	(515.0 / 470.1)	13C2_PFDA_IIS	1.0000	1.0000	y = 340648.6865 x	%RSD=6.9
18O2_PFHxS_IIS	(403.0 / 83.9)	18O2_PFHxS_IIS	1.0000	1.0000	y = 605087.5488 x	%RSD=4.0
13C4_PFOS_IIS	(503.0 / 79.9)	13C4_PFOS_IIS	1.0000	1.0000	y = 644809.1635 x	%RSD=8.9

Analyte	(Q1 / Q3)	Internal Standard	Multiplier	AcidFactor	Function	Qualifier
13C4_PFBA_EIS	(217.0 / 172.0)	13C3_PFBA_IIS	8.0000	1.0000	y = 8.0318 x	%RSD=1.9
13C5_PFPaA_EIS	(268.0 / 223.0)	13C2_PFHxA_IIS	4.0000	1.0000	y = 3.0178 x	%RSD=6.7
13C5_PFHxA_EIS	(318.0 / 273.0)	13C2_PFHxA_IIS	2.0000	1.0000	y = 2.0466 x	%RSD=5.2
13C4_PFHpA_EIS	(367.0 / 322.0)	13C2_PFHxA_IIS	2.0000	1.0000	y = 1.7779 x	%RSD=6.1
13C8_PFOA_EIS	(421.0 / 376.0)	13C4_PFOA_IIS	2.0000	1.0000	y = 2.0463 x	%RSD=5.4
13C9_PFNA_EIS	(472.0 / 427.0)	13C5_PFNA_IIS	1.0000	1.0000	y = 1.0390 x	%RSD=8.7
13C6_PFDA_EIS	(519.0 / 474.0)	13C2_PFDA_IIS	1.0000	1.0000	y = 1.2079 x	%RSD=6.6
13C7_PFUaA_EIS	(570.0 / 525.0)	13C2_PFDA_IIS	1.0000	1.0000	y = 1.4855 x	%RSD=13.8
13C2_PFDoA_EIS	(615.0 / 570.0)	13C2_PFDA_IIS	1.0000	1.0000	y = 1.4824 x	%RSD=7.1
13C2_PFTeDA_EIS	(715.0 / 670.0)	13C2_PFDA_IIS	1.0000	1.0000	y = 0.9393 x	%RSD=11.6
13C3_PFBS_EIS	(302.0 / 80.0)	18O2_PFHxS_IIS	2.0000	1.0000	y = 3.0269 x	%RSD=7.8
13C3_PFHxS_EIS	(402.0 / 80.0)	18O2_PFHxS_IIS	2.0000	1.0000	y = 1.6390 x	%RSD=6.8
13C8_PFOS_EIS	(507.0 / 80.0)	13C4_PFOS_IIS	2.0000	1.0000	y = 2.4102 x	%RSD=9.3
13C2_4:2FTS_EIS	(329.0 / 81.0)	18O2_PFHxS_IIS	4.0000	1.0000	y = 0.6840 x	%RSD=9.9
13C2_6:2FTS_EIS	(429.0 / 81.0)	18O2_PFHxS_IIS	4.0000	1.0000	y = 0.9050 x	%RSD=10.4
13C2_8:2FTS_EIS	(529.0 / 81.0)	18O2_PFHxS_IIS	4.0000	1.0000	y = 1.1407 x	%RSD=12.2
13C8_PFOSA_EIS	(506.0 / 78.0)	13C4_PFOS_IIS	2.0000	1.0000	y = 2.8131 x	%RSD=12.5
D3_NMeFOSA_EIS	(515.0 / 169.0)	13C4_PFOS_IIS	2.0000	1.0000	y = 0.5320 x	%RSD=15.4
D5_NEtFOSA_EIS	(531.0 / 169.0)	13C4_PFOS_IIS	2.0000	1.0000	y = 0.4872 x	%RSD=10.3
D3_MeFOSAA_EIS	(573.0 / 419.0)	13C4_PFOS_IIS	4.0000	1.0000	y = 1.5167 x	%RSD=8.6
D5_EtFOSAA_EIS	(589.0 / 419.0)	13C4_PFOS_IIS	4.0000	1.0000	y = 1.1761 x	%RSD=14.8
D7_NMeFOSE_EIS	(623.0 / 58.9)	13C4_PFOS_IIS	20.0000	1.0000	y = 1.1622 x	%RSD=11.8
D9_NEtFOSE_EIS	(639.0 / 58.9)	13C4_PFOS_IIS	20.0000	1.0000	y = 0.5359 x	%RSD=12.4
13C3_HFPODA_EIS	(287.0 / 169.0)	13C2_PFHxA_IIS	8.0000	1.0000	y = 4.5797 x	%RSD=6.0

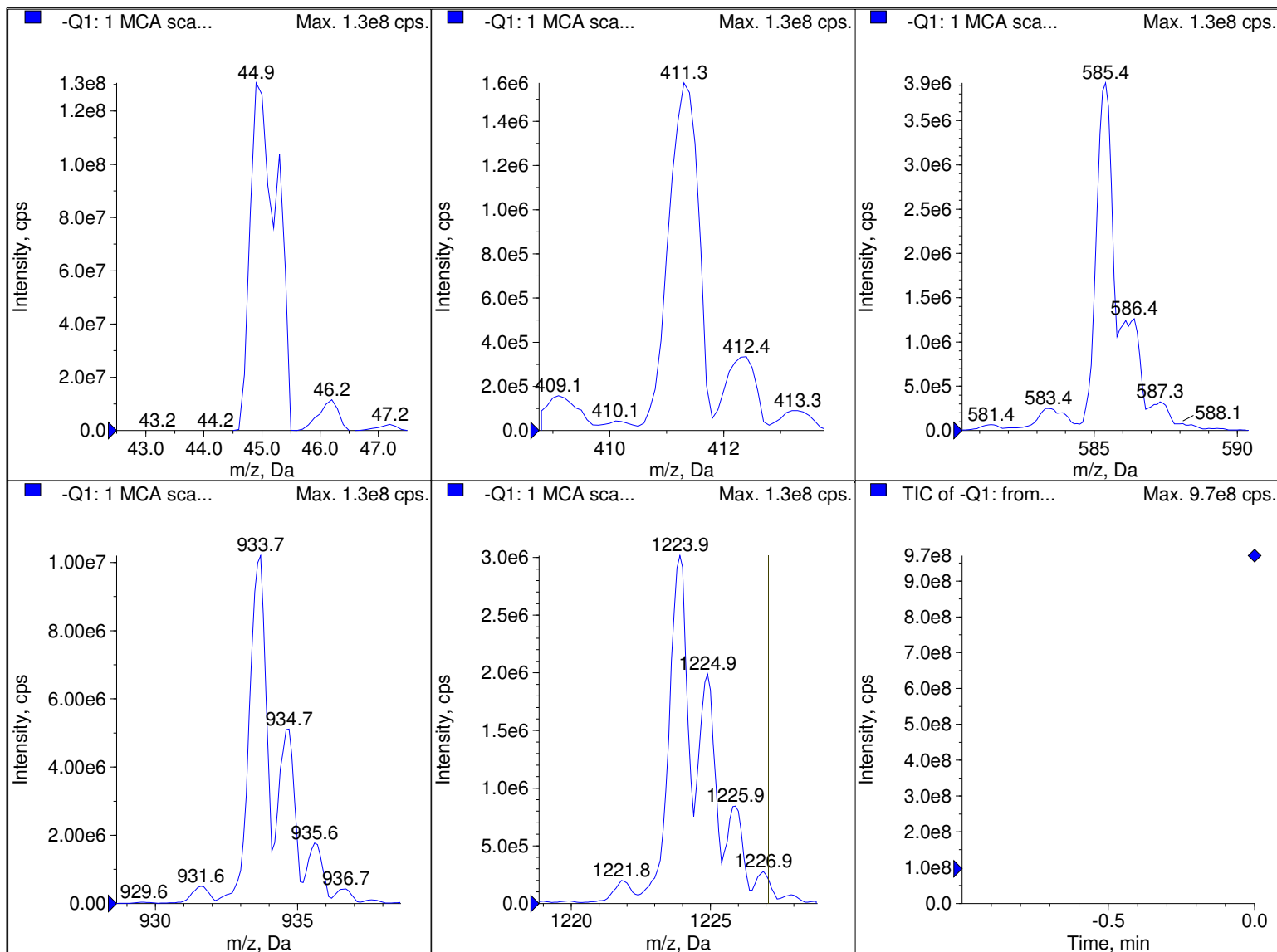
x= Concentration Analyte

$$y = \text{Area Ratio} = \frac{\text{Area Analyte}}{\text{Area Internal Standard}}$$

$$\text{Acid Factor} = \frac{\text{Molecular weight Acid}}{\text{Molecular weight Salt}}$$

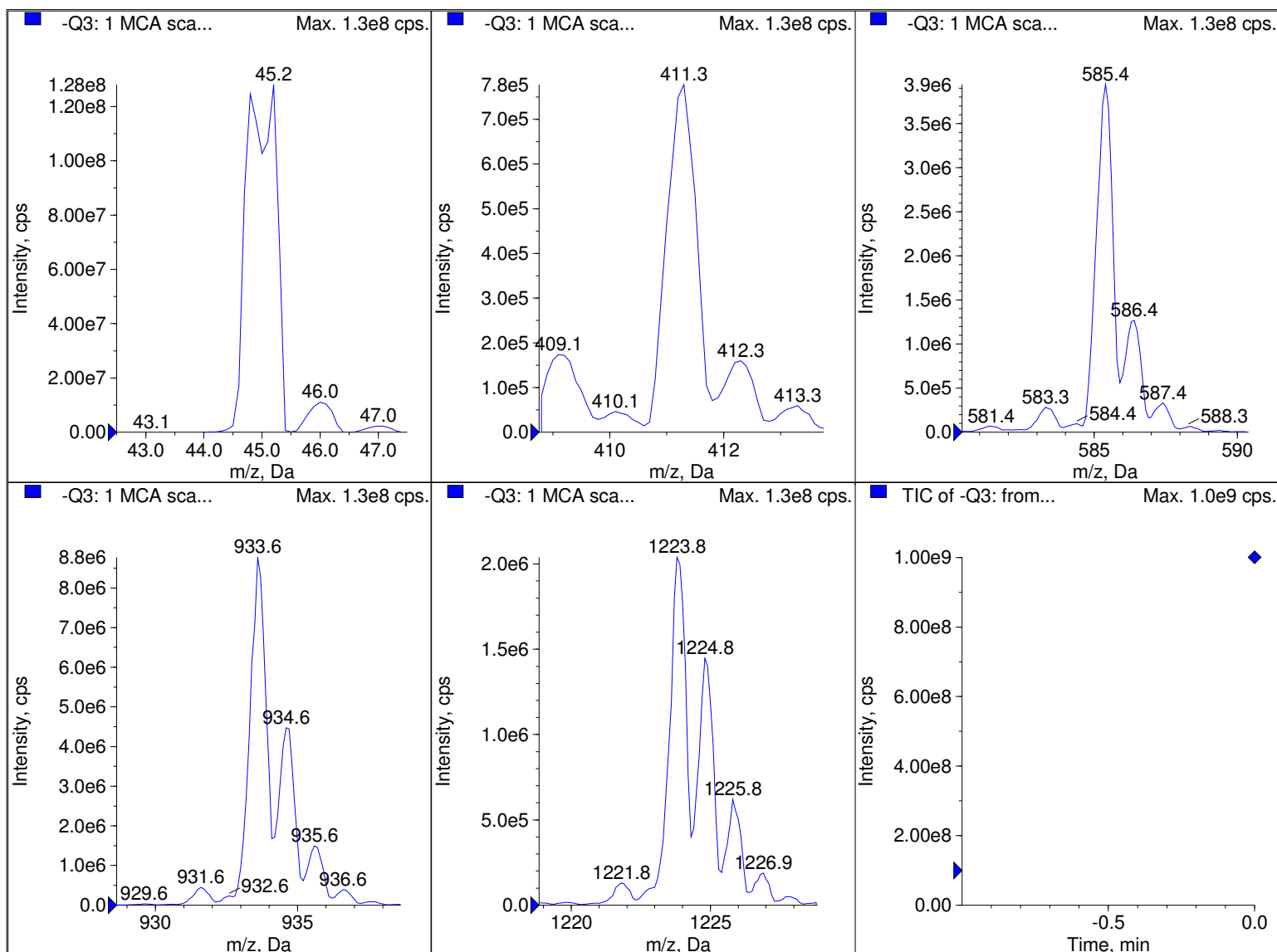
$$\text{Multiplier} = \frac{\text{Concentration of Analyte}}{\text{Concentration of PFOA}} \text{ in curve standard mix}$$

$$\text{Result} \left(\frac{\text{ng}}{\text{ml}} \right) = x * \text{Multiplier} * \text{Acid Factor}$$



Peak List for "-Q1: 1 MCA scans from Sample 1 (TuneSampleID) of MT20221111142838.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	45.0305	1.3061e8	0.6158	-0.0325
2	411.2590	411.3148	1.5745e6	0.6085	-0.0558
3	585.3850	585.3651	3.9270e6	0.6307	0.0199
4	933.6360	933.6197	1.0205e7	0.6552	0.0163
5	1223.8450	1223.8627	3.0170e6	0.6967	-0.0177
6	1572.0970	n/a	n/a	n/a	n/a
7	1863.3060	n/a	n/a	n/a	n/a
8	1979.3890	n/a	n/a	n/a	n/a

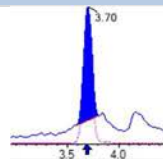
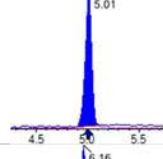
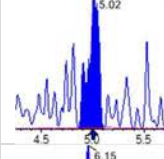
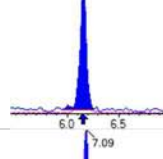
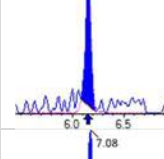
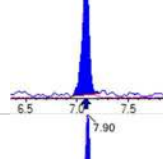
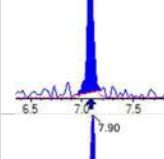
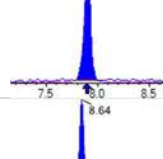
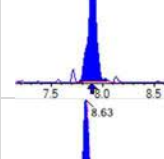
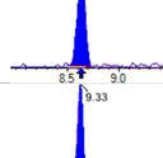
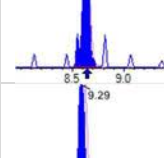
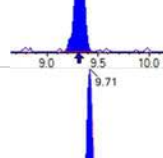
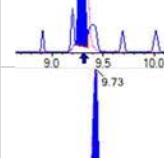
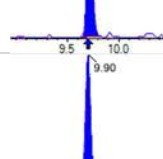
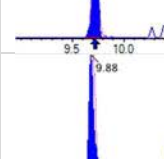
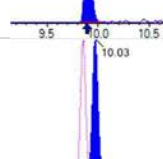
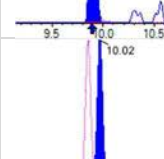
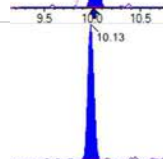
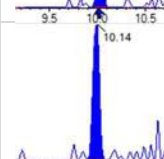
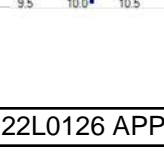
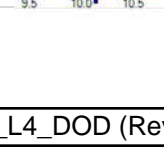


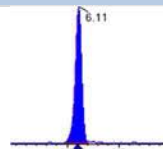
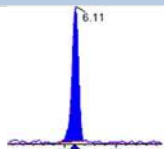
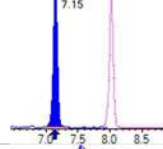
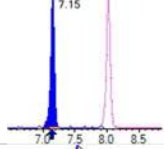
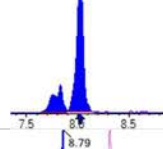
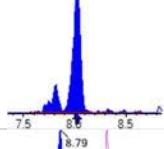
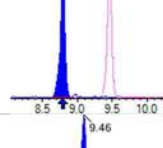
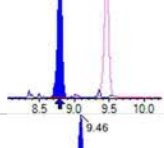
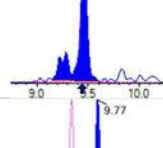
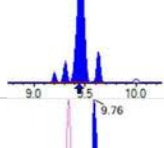
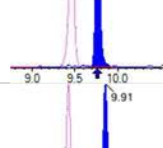
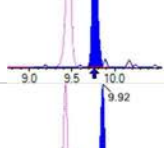
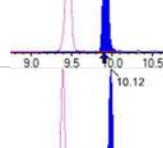
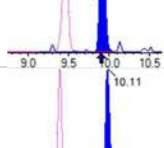
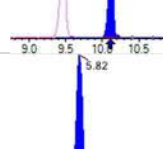
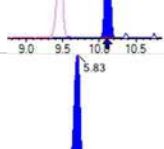
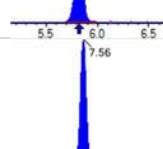
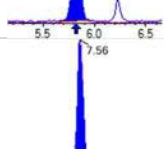
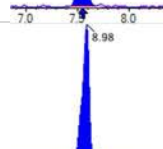
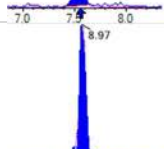

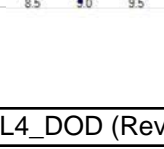
Peak List for "-Q3: 1 MCA scans from Sample 1 (TuneSampleID) of MT20221111142403.wiff (Turbo Spray)"

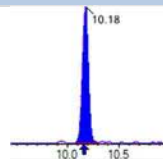
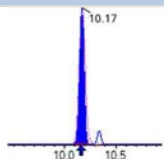
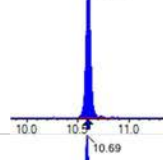
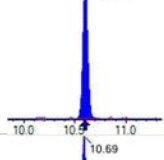
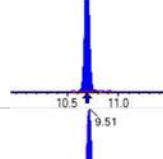
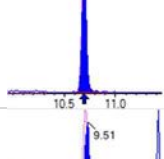
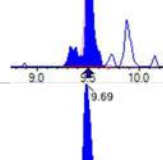
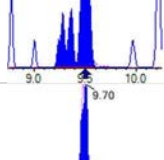
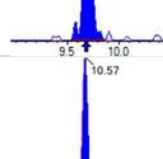
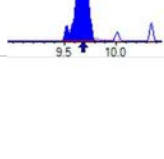
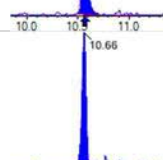
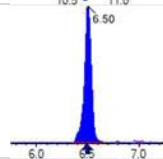
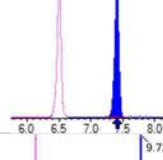
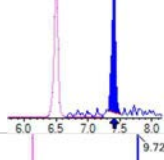
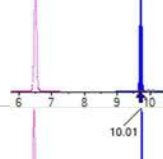
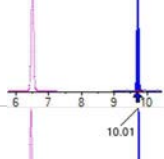
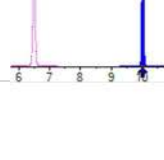
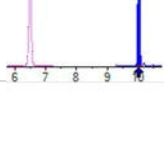
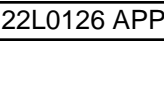
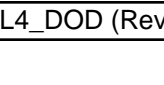
	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	44.9980	44.9799	1.2814e8	0.6414	0.0181
2	411.2590	411.2677	7.7810e5	0.6076	-8.6898e-3
3	585.3850	585.3784	3.9438e6	0.6511	6.5868e-3
4	933.6360	933.6279	8.7759e6	0.6302	8.0526e-3
5	1223.8450	1223.8609	2.0397e6	0.6225	-0.0159
6	1572.0970	n/a	n/a	n/a	n/a
7	1863.3060	n/a	n/a	n/a	n/a
8	1979.3890	n/a	n/a	n/a	n/a

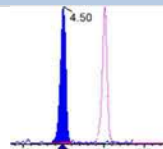
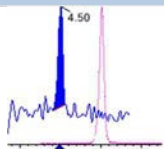
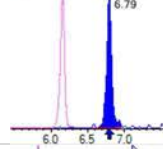
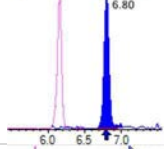
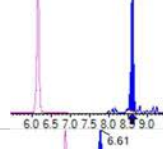
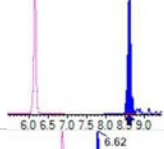
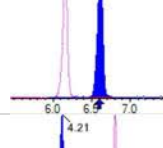
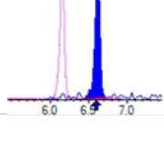
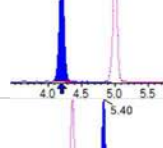
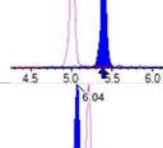
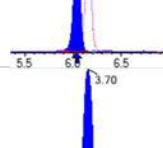
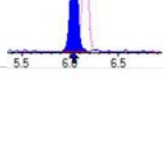
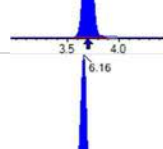
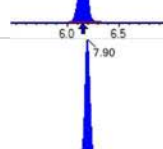
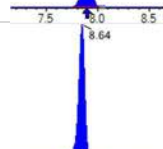

EPA 1633 SPLP

Initial Calibration: SB03988

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 96482	(3.70 , 1.00) (0.00 , N/A , 0.0)	87.7	N/A 0.0 0.0	0.3532 [0.4000]	88.3%			
PFPeA	(263.0 / 219.0) 70122 (263.0 / 69.0) 1164	(5.01 , 1.00) (0.00 , N/A , -0.9)	218.3 18.0	0.0166 153.9 153.9	0.2183 [0.2000]	109.2%			
PFHxA	(313.0 / 269.0) 47485 (313.0 / 119.0) 3407	(6.16 , 1.00) (0.00 , N/A , 0.2)	119.7 27.9	0.0717 79.7 79.7	0.1109 [0.1000]	110.9%			
PFHpA	(363.0 / 319.0) 47869 (363.0 / 169.0) 12253	(7.09 , 1.00) (0.00 , N/A , 0.5)	116.7 49.4	0.2560 84.1 84.1	0.1243 [0.1000]	124.3%			
PFOA	(413.0 / 369.0) 49111 (413.0 / 169.0) 13991	(7.90 , 1.00) (0.00 , N/A , 0.0)	167.7 121.3	0.2849 84.8 84.8	0.1090 [0.1000]	109.0%			
PFNA	(463.0 / 419.0) 36748 (463.0 / 169.0) 5202	(8.64 , 1.00) (0.00 , N/A , 0.4)	131.8 51.9	0.1416 67.7 67.7	0.1022 [0.1000]	102.2%			
PFDA	(513.0 / 469.0) 51300 (513.0 / 169.0) 3417	(9.33 , 1.00) (0.01 , N/A , 2.3)	139.7 40.6	0.0666 74.7 74.7	0.1168 [0.1000]	116.8%			
PFUnA	(563.0 / 519.0) 42174 (563.0 / 169.0) 5888	(9.71 , 1.00) (-0.01 , N/A , -0.6)	130.0 118.3	0.1396 132.5 132.5	0.0962 [0.1000]	96.2%			
PFDoA	(613.0 / 569.0) 73172 (613.0 / 169.0) 6980	(9.90 , 1.00) (0.00 , N/A , 1.1)	144.6 43.3	0.0954 74.3 74.3	0.1199 [0.1000]	119.9%			
PFTTrDA	(663.0 / 619.0) 56473 (663.0 / 169.0) 15707	(10.03 , 1.01) (N/A , 0.01 , 0.2)	223.6 52.6	0.2781 121.9 121.9	0.1095 [0.1000]	109.5%			
PFTeDA	(713.0 / 669.0) 45824 (713.0 / 169.0) 14793	(10.13 , 1.00) (0.00 , N/A , -0.4)	167.6 32.8	0.3228 154.6 154.6	0.0992 [0.1000]	99.2%			IR2,

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 66699 (299.0 / 99.0) 40194	(6.11, 1.00) (0.01, N/A, 0.2)	326.7 157.8	0.6026 90.4 90.4	0.0987 [0.0885]	111.5%			
PFPeS	(349.0 / 80.0) 106821 (349.0 / 99.0) 37213	(7.15, 0.89) (N/A, 0.01, -0.2)	247.4 242.2	0.3484 94.6 94.6	0.0933 [0.0938]	99.4%			
PFHxS	(399.0 / 80.0) 95291 (399.0 / 99.0) 31242	(8.02, 1.00) (0.00, N/A, 0.0)	316.5 8179.6	0.3279 102.5 102.5	0.0910 [0.0911]	99.8%			
PFHpS	(449.0 / 80.0) 87975 (449.0 / 99.0) 27138	(8.79, 0.93) (N/A, 0.01, -0.1)	232.3 133.2	0.3085 116.0 116.0	0.0914 [0.0951]	96.1%			
PFOS	(499.0 / 80.0) 117548 (499.0 / 99.0) 28867	(9.46, 1.00) (0.00, N/A, 0.2)	89.2 1676.6	0.2456 107.5 107.5	0.1002 [0.0927]	108.0%			
PFNS	(549.0 / 80.0) 106989 (549.0 / 99.0) 27706	(9.77, 1.03) (N/A, 0.01, 0.1)	219.7 109.1	0.2590 110.2 110.2	0.0915 [0.0960]	95.3%			
PFDS	(599.0 / 80.0) 124766 (599.0 / 99.0) 30760	(9.91, 1.05) (N/A, 0.01, -0.2)	310.8 120.0	0.2465 110.0 110.0	0.0873 [0.0963]	90.6%			
PFDoS	(699.0 / 80.0) 51061 (699.0 / 99.0) 17349	(10.12, 1.07) (N/A, 0.01, 0.2)	611.4 106.2	0.3398 166.0 166.0	0.0894 [0.0970]	92.2%			IR2,
4:2FTS	(327.0 / 307.0) 171176 (327.0 / 81.0) 98575	(5.82, 1.00) (0.00, N/A, -0.4)	484.1 142.8	0.5759 89.3 89.3	0.3842 [0.3738]	102.8%			
6:2FTS	(427.0 / 407.0) 95412 (427.0 / 81.0) 71318	(7.56, 1.00) (0.00, N/A, 0.1)	241.4 180.0	0.7475 105.7 105.7	0.3539 [0.3796]	93.2%			
8:2FTS	(527.0 / 507.0) 114696 (527.0 / 81.0) 64756	(8.98, 1.00) (0.00, N/A, 0.6)	309.1 173.9	0.5646 80.4 80.4	0.4801 [0.3833]	125.2%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 121033 (498.0 / 478.0) 5721	(10.18, 1.00) (0.00, N/A, 0.4)	257.4 21519.3	0.0473 296.6 296.6	0.0985 [0.1000]	98.5%			
NMeFOSA	(512.0 / 219.0) 79936 (512.0 / 169.0) 60706	(10.60, 1.00) (0.00, N/A, 0.0)	378.0 366.0	0.7594 111.6 111.6	0.4093 [0.4000]	102.3%			
NEIFOSA	(526.0 / 219.0) 81986 (526.0 / 169.0) 85130	(10.69, 1.00) (0.00, N/A, -0.1)	584.0 435.6	1.0383 103.4 103.4	0.4060 [0.4000]	101.5%			
NMeFOSAA	(570.0 / 419.0) 26827 (570.0 / 483.0) 4808	(9.51, 1.00) (0.01, N/A, -0.1)	83.5 34.8	0.1792 35.9 35.9	0.1188 [0.1000]	118.8%			IR1,
NEIFOSAA	(584.0 / 419.0) 24255 (584.0 / 526.0) 11817	(9.69, 1.00) (0.00, N/A, -0.2)	206.8 2643.1	0.4872 81.1 81.1	0.1117 [0.1000]	111.7%			
NMeFOSE	(616.0 / 59.0) 19486	(10.57, 1.00) (0.01, N/A, 0.0)	175.1	N/A 0.0 0.0	0.4474 [0.4000]	111.8%			
NEtFOSE	(630.0 / 59.0) 2906	(10.66, 1.00) (0.00, N/A, 0.0)	74.1	N/A 0.0 0.0	0.4257 [0.4000]	106.4%			
HFPO-DA	(285.0 / 169.0) 33903 (285.0 / 185.0) 82984	(6.50, 1.00) (0.00, N/A, 0.1)	204.2 389.0	2.4477 88.9 88.9	0.2113 [0.2000]	105.6%			
ADONA	(377.0 / 85.0) 135299 (377.0 / 251.0) 16867	(7.41, 1.14) (N/A, 0.01, 0.1)	411.1 72.3	0.1247 108.4 108.4	0.1969 [0.1885]	104.4%			
9Cl-Pf3ONS	(531.0 / 351.0) 326066 (533.0 / 353.0) 109270	(9.72, 1.49) (N/A, 0.01, 0.0)	486.9 319.4	0.3351 104.7 104.7	0.1808 [0.1867]	96.9%			
11Cl-PF3OUDS	(631.0 / 451.0) 191612 (633.0 / 453.0) 50415	(10.01, 1.54) (N/A, 0.01, 0.0)	543.2 379.6	0.2631 89.9 89.9	0.2032 [0.1886]	107.7%			

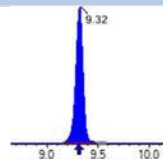
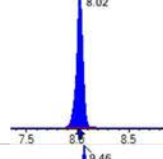
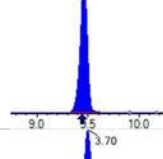
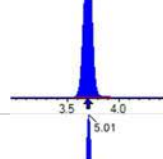
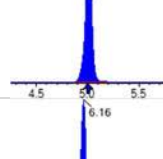
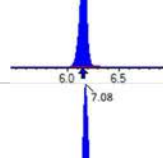
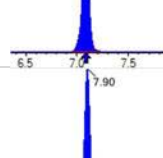
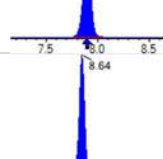
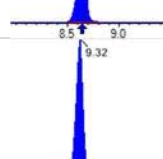
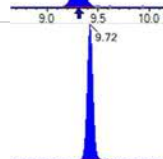

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 5576 (241.0 / 117.0) 5792	(4.50, 0.90) (N/A, 0.01, -0.1)	192.3 27.4	1.0387 76.1 76.1	0.4960 [0.4000]	124.0%			
5:3FTCA	(341.0 / 236.7) 26198 (341.0 / 217.0) 39448	(6.79, 1.10) (N/A, 0.00, -0.3)	129.8 142.2	1.5058 90.6 90.6	0.3989 [0.4000]	99.7%			
7:3FTCA	(441.0 / 317.0) 27767 (441.0 / 337.0) 28665	(8.61, 1.40) (N/A, 0.01, -0.1)	99.7 95.8	1.0323 123.5 123.5	0.3432 [0.4000]	85.8%			
PFEESA	(315.0 / 135.0) 82797 (315.0 / 83.0) 25229	(6.61, 1.07) (N/A, 0.01, -0.2)	389.8 103.8	0.3047 98.9 98.9	0.1942 [0.1785]	108.8%			
PFMPA	(229.0 / 85.0) 21451	(4.21, 0.84) (N/A, 0.01, 0.0)	375.2	N/A 0.0 0.0	0.2201 [0.2000]	110.0%			
PFMBA	(279.0 / 85.0) 51455	(5.40, 1.08) (N/A, 0.01, 0.0)	421.8	N/A 0.0 0.0	0.2016 [0.2000]	100.8%			
NFDHA	(295.0 / 201.0) 41254 (295.0 / 85.0) 33866	(6.04, 0.98) (N/A, 0.01, 0.0)	344.0 183.0	0.8209 94.5 94.5	0.2015 [0.2000]	100.8%			
13C3_PFBa_IIS	(216.0 / 172.0) 293759	(3.70, N/A) (N/A, 0.00, N/A)	523.8	N/A	1.0867 [1.0000]	108.7% {100.9%}			
13C2_PFHxA_IIS	(315.0 / 270.0) 426693	(6.16, N/A) (N/A, 0.01, N/A)	501.6	N/A	1.0744 [1.0000]	107.4% {106.5%}			
13C4_PFOA_IIS	(417.0 / 372.0) 417656	(7.90, N/A) (N/A, 0.01, N/A)	506.2	N/A	1.0455 [1.0000]	104.5% {105.1%}			
13C5_PFNA_IIS	(468.0 / 423.0) 344151	(8.64, N/A) (N/A, 0.02, N/A)	392.3	N/A	1.0411 [1.0000]	104.1% {94.7%}			

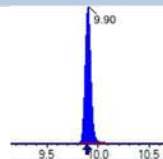
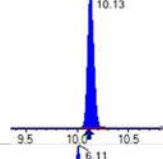
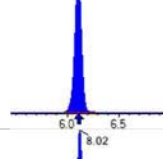
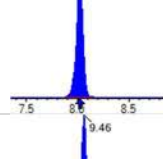
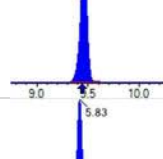
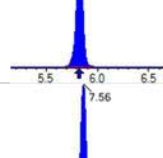
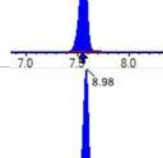
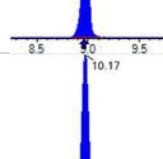
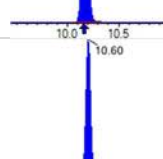
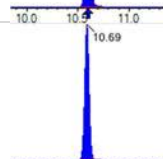
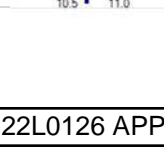


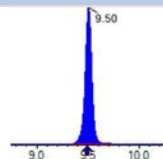
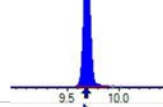
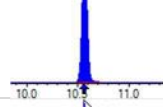
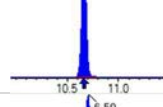
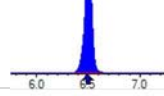
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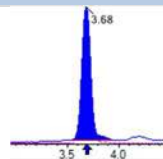
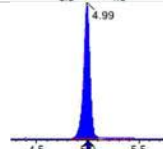
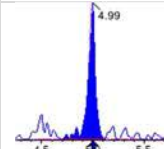
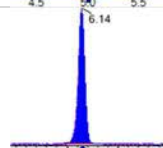
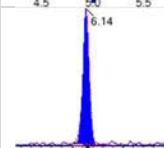
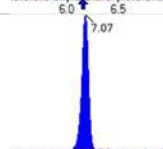
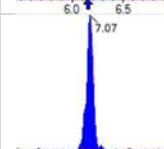
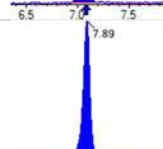
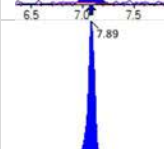
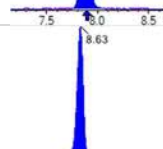
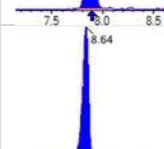
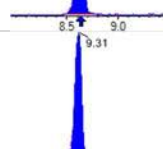
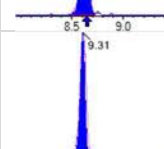
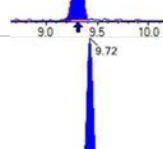
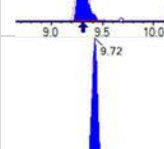
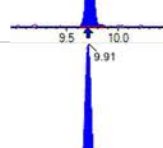
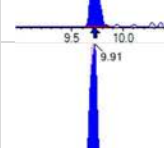
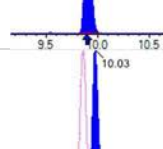
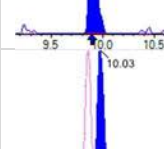
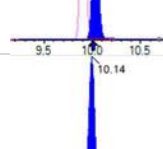
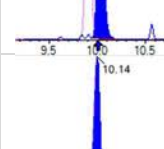
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DF, IV: 1, 10.0µL
Acquisition Method: 1633 2022-12-27.dam

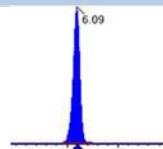
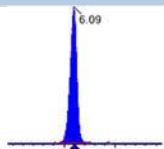
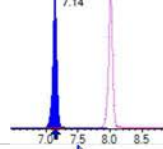
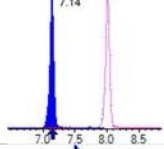
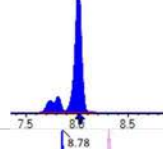
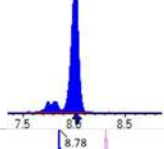
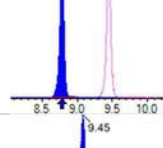
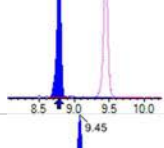
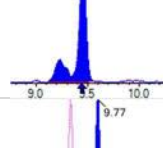
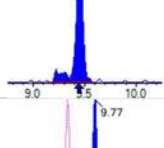
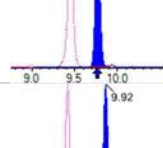
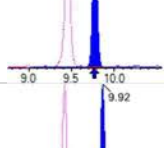
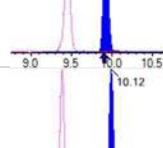
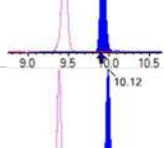
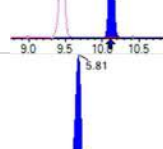
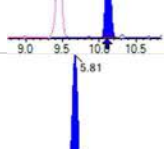
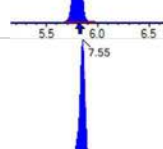
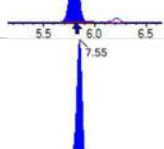
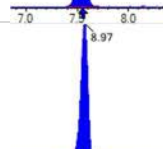
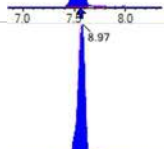

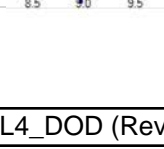
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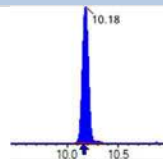
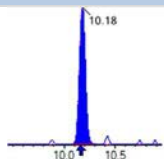
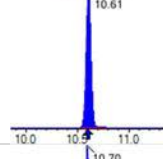
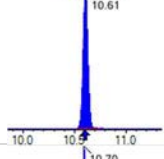
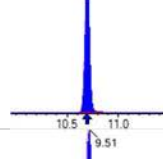
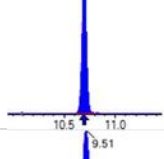
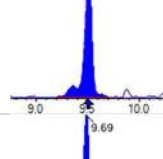
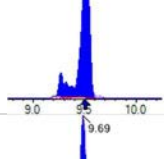
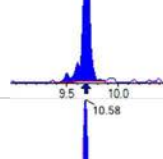
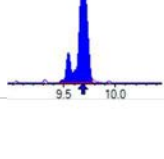
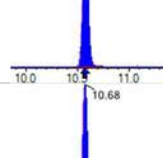
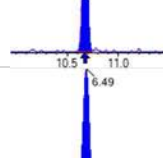
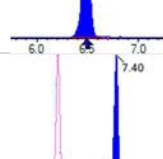
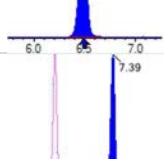
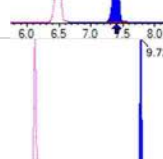
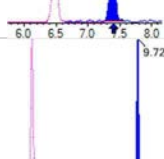
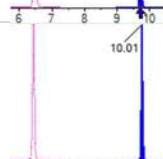
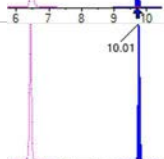

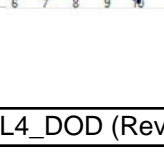
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 319411	(9.32, N/A) (N/A, 0.01, N/A)	333.6	N/A	0.8945 [1.0000]	89.5% { 96.2% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 720909	(8.02, N/A) (N/A, 0.01, N/A)	607.1	N/A	1.0336 [1.0000]	103.4% { 96.9% }			
13C4_PFOS_IIS	(503.0 / 79.9) 693012	(9.46, N/A) (N/A, 0.02, N/A)	356.9	N/A	1.0050 [1.0000]	100.5% { 105.1% }			
13C4_PFBA_EIS	(217.0 / 172.0) 2606071	(3.70, N/A) (N/A, 0.00, N/A)	758.1	N/A	8.2555 [8.0000]	103.2% { 108.1% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1503812	(5.01, N/A) (N/A, 0.01, N/A)	561.1	N/A	3.8565 [4.0000]	96.4% { 99.0% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 939907	(6.16, N/A) (N/A, 0.01, N/A)	479.4	N/A	1.9804 [2.0000]	99.0% { 108.6% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 804502	(7.08, N/A) (N/A, 0.00, N/A)	673.6	N/A	1.8972 [2.0000]	94.9% { 96.7% }			
13C8_PFOA_EIS	(421.0 / 376.0) 970319	(7.90, N/A) (N/A, 0.01, N/A)	576.0	N/A	2.1201 [2.0000]	106.0% { 119.4% }			
13C9_PFNA_EIS	(472.0 / 427.0) 397208	(8.64, N/A) (N/A, 0.01, N/A)	428.8	N/A	1.0485 [1.0000]	104.8% { 103.6% }			
13C6_PFDA_EIS	(519.0 / 474.0) 493303	(9.32, N/A) (N/A, 0.02, N/A)	433.4	N/A	1.1806 [1.0000]	118.1% { 110.0% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 553780	(9.72, N/A) (N/A, 0.01, N/A)	627.7	N/A	1.0936 [1.0000]	109.4% { 91.4% }			

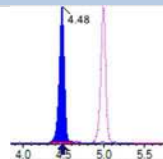
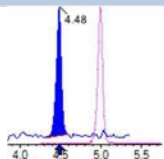
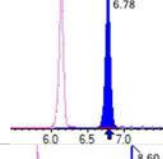
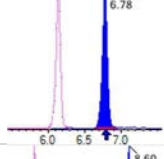
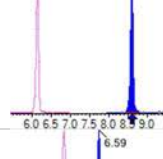
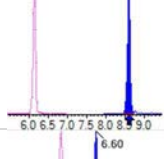
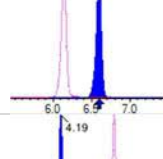
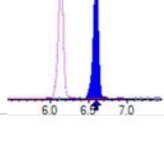
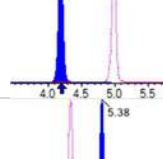
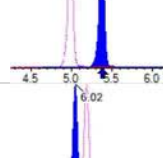
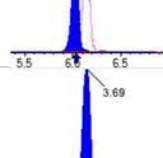
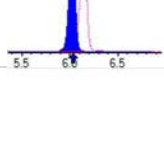
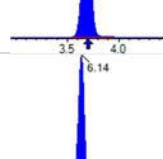
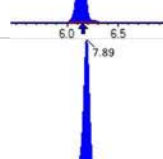
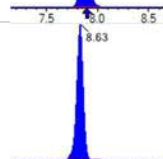

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 711923	(9.90, N/A) (N/A, 0.01, N/A)	511.5	N/A	1.2774 [1.0000]	127.7% {104.3%}			
13C2_PFTeDA_EIS	(715.0 / 670.0) 508564	(10.13, N/A) (N/A, 0.01, N/A)	4581.3	N/A	1.3825 [1.0000]	138.2% {115.5%}			
13C3_PFBs_EIS	(302.0 / 80.0) 2423623	(6.11, N/A) (N/A, 0.01, N/A)	480.0	N/A	1.9965 [2.0000]	99.8% {96.3%}			
13C3_PFHxS_EIS	(402.0 / 80.0) 1363135	(8.02, N/A) (N/A, 0.01, N/A)	727.3	N/A	2.1155 [2.0000]	105.8% {107.0%}			
13C8_PFOS_EIS	(507.0 / 80.0) 2022649	(9.46, N/A) (N/A, 0.01, N/A)	486.5	N/A	2.2536 [2.0000]	112.7% {123.9%}			
13C2_4:2FTS_EIS	(329.0 / 81.0) 624626	(5.83, N/A) (N/A, 0.01, N/A)	677.5	N/A	4.3692 [4.0000]	109.2% {121.4%}			
13C2_6:2FTS_EIS	(429.0 / 81.0) 787997	(7.56, N/A) (N/A, 0.01, N/A)	556.2	N/A	4.4354 [4.0000]	110.9% {131.7%}			
13C2_8:2FTS_EIS	(529.0 / 81.0) 709354	(8.98, N/A) (N/A, 0.02, N/A)	544.7	N/A	4.0500 [4.0000]	101.3% {116.1%}			
13C8_PFOsa_EIS	(506.0 / 78.0) 2561171	(10.17, N/A) (N/A, 0.01, N/A)	614.6	N/A	2.1463 [2.0000]	107.3% {107.5%}			
D3_NMeFOSA_EIS	(515.0 / 169.0) 448995	(10.60, N/A) (N/A, 0.01, N/A)	889.3	N/A	1.9402 [2.0000]	97.0% {98.6%}			
D5_NEtFOSA_EIS	(531.0 / 169.0) 439418	(10.69, N/A) (N/A, 0.01, N/A)	1298.8	N/A	2.1311 [2.0000]	106.6% {107.6%}			

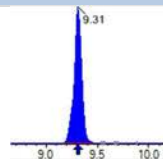
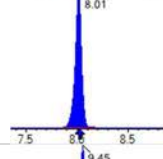
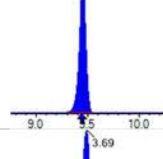
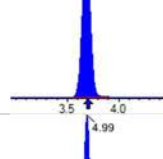
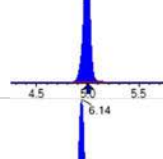
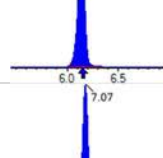
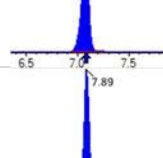
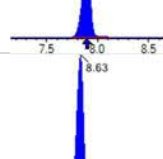
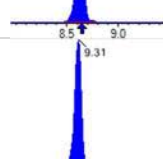
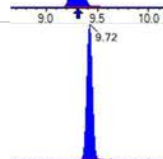

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 1088026	(9.50, N/A) (N/A, 0.01, N/A)	390.2	N/A	4.4314 [4.0000]	110.8% {103.8%}			
D5_EtFOSAA_EIS	(589.0 / 419.0) 1001401	(9.69, N/A) (N/A, 0.02, N/A)	366.4	N/A	4.7619 [4.0000]	119.0% {109.6%}			
D7_NMeFOSE_EIS	(623.0 / 58.9) 771530	(10.57, N/A) (N/A, 0.01, N/A)	1010.0	N/A	20.8094 [20.0000]	104.0% {104.8%}			
D9_NEtFOSE_EIS	(639.0 / 58.9) 360122	(10.66, N/A) (N/A, 0.01, N/A)	985.4	N/A	24.0182 [20.0000]	120.1% {119.5%}			
13C3_HFPODA_EIS	(287.0 / 169.0) 2091567	(6.50, N/A) (N/A, 0.01, N/A)	629.0	N/A	7.9361 [8.0000]	99.2% {106.6%}			

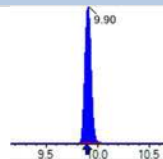
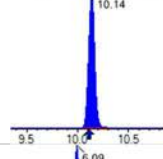
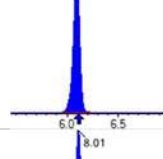
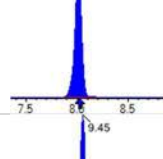
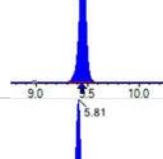
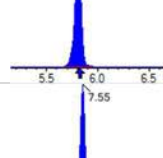
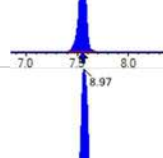
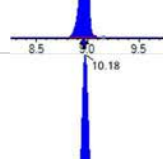
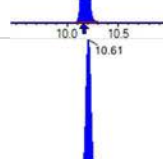
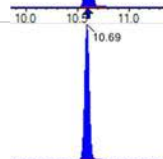
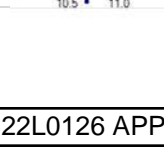
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 521167	(3.68 , 1.00) (0.00 , N/A , 0.0)	265.0	N/A 0.0 0.0	2.0353 [2.0000]	101.8%			
PFPeA	(263.0 / 219.0) 320854 (263.0 / 69.0) 4152	(4.99 , 1.00) (0.00 , N/A , -0.2)	457.5 157.4	0.0129 119.9 119.9	0.9712 [1.0000]	97.1%			
PFHxA	(313.0 / 269.0) 194977 (313.0 / 119.0) 20293	(6.14 , 1.00) (0.00 , N/A , 0.4)	328.1 141.9	0.1041 115.6 115.6	0.4541 [0.5000]	90.8%			
PFHpA	(363.0 / 319.0) 190217 (363.0 / 169.0) 50369	(7.07 , 1.00) (0.00 , N/A , 0.1)	273.0 150.1	0.2648 87.0 87.0	0.4985 [0.5000]	99.7%			
PFOA	(413.0 / 369.0) 205001 (413.0 / 169.0) 59201	(7.89 , 1.00) (0.00 , N/A , 0.1)	423.1 260.1	0.2888 86.0 86.0	0.4670 [0.5000]	93.4%			
PFNA	(463.0 / 419.0) 161557 (463.0 / 169.0) 32887	(8.63 , 1.00) (0.00 , N/A , -0.4)	265.7 218.9	0.2036 97.3 97.3	0.4620 [0.5000]	92.4%			
PFDA	(513.0 / 469.0) 205700 (513.0 / 169.0) 21909	(9.31 , 1.00) (0.00 , N/A , 0.4)	215.0 307.9	0.1065 119.5 119.5	0.4713 [0.5000]	94.3%			
PFUnA	(563.0 / 519.0) 221267 (563.0 / 169.0) 30791	(9.72 , 1.00) (0.00 , N/A , 0.0)	254.7 121.3	0.1392 132.1 132.1	0.4540 [0.5000]	90.8%			
PFDoA	(613.0 / 569.0) 250949 (613.0 / 169.0) 28444	(9.91 , 1.00) (0.00 , N/A , -0.4)	465.4 101.4	0.1133 88.3 88.3	0.5127 [0.5000]	102.5%			
PFTTrDA	(663.0 / 619.0) 206069 (663.0 / 169.0) 37764	(10.03 , 1.01) (N/A , 0.01 , -0.1)	412.2 125.9	0.1833 80.3 80.3	0.4981 [0.5000]	99.6%			
PFTeDA	(713.0 / 669.0) 169706 (713.0 / 169.0) 41380	(10.14 , 1.00) (0.00 , N/A , -0.3)	395.6 135.4	0.2438 116.7 116.7	0.4278 [0.5000]	85.6%			

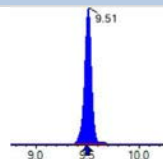
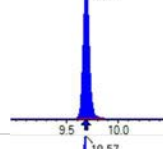
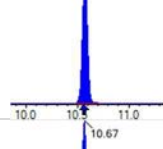
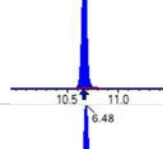
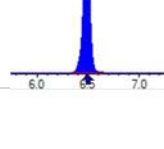
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 278472 (299.0 / 99.0) 190563	(6.09 , 1.00) (0.00 , N/A , 0.0)	455.0 417.5	0.6843 102.7 102.7	0.4079 [0.4424]	92.2%			
PFPeS	(349.0 / 80.0) 523335 (349.0 / 99.0) 186304	(7.14 , 0.89) (N/A , 0.00 , 0.0)	554.9 474.9	0.3560 96.7 96.7	0.4969 [0.4692]	105.9%			
PFHxS	(399.0 / 80.0) 465773 (399.0 / 99.0) 150912	(8.01 , 1.00) (0.00 , N/A , 0.2)	794.7 522.5	0.3240 101.3 101.3	0.4832 [0.4555]	106.1%			
PFHpS	(449.0 / 80.0) 408354 (449.0 / 99.0) 110034	(8.78 , 0.93) (N/A , 0.00 , 0.0)	480.9 438.4	0.2695 101.3 101.3	0.4292 [0.4757]	90.2%			
PFOS	(499.0 / 80.0) 488845 (499.0 / 99.0) 96676	(9.45 , 1.00) (0.00 , N/A , 0.1)	236.3 303.4	0.1978 86.6 86.6	0.4212 [0.4637]	90.8%			
PFNS	(549.0 / 80.0) 514423 (549.0 / 99.0) 141771	(9.77 , 1.03) (N/A , 0.01 , -0.1)	722.4 379.6	0.2756 117.3 117.3	0.4449 [0.4799]	92.7%			
PFDS	(599.0 / 80.0) 628037 (599.0 / 99.0) 156320	(9.92 , 1.05) (N/A , 0.01 , 0.0)	478.0 438.4	0.2489 111.1 111.1	0.4442 [0.4816]	92.2%			
PFDoS	(699.0 / 80.0) 247263 (699.0 / 99.0) 56750	(10.12 , 1.07) (N/A , 0.01 , 0.2)	588.5 283.7	0.2295 112.1 112.1	0.4378 [0.4848]	90.3%			
4:2FTS	(327.0 / 307.0) 774496 (327.0 / 81.0) 456872	(5.81 , 1.00) (0.00 , N/A , 0.2)	585.5 249.3	0.5899 91.4 91.4	1.8072 [1.8691]	96.7%			
6:2FTS	(427.0 / 407.0) 433351 (427.0 / 81.0) 346345	(7.55 , 1.00) (0.00 , N/A , 0.0)	483.0 450.9	0.7992 113.0 113.0	1.7070 [1.8981]	89.9%			
8:2FTS	(527.0 / 507.0) 432267 (527.0 / 81.0) 343587	(8.97 , 1.00) (0.00 , N/A , -0.2)	361.9 450.1	0.7948 113.2 113.2	1.8830 [1.9166]	98.2%			

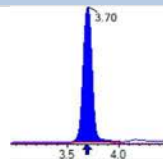
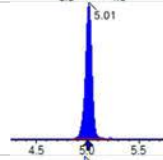
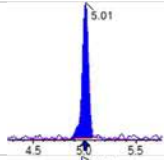
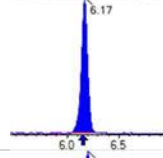
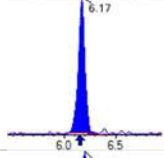
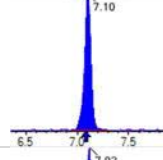
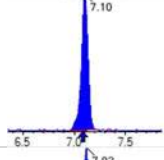
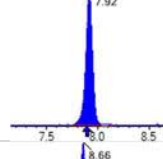
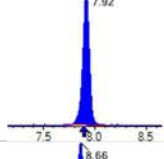
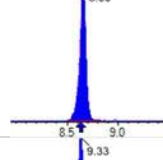
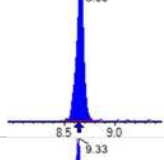
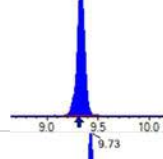
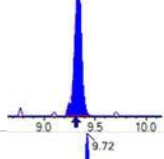
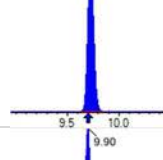
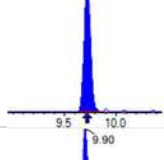
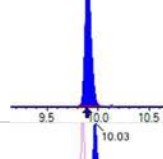
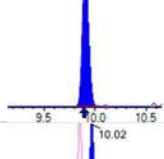
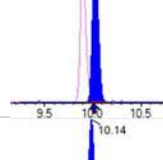
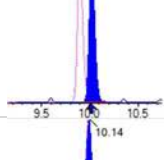
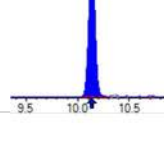
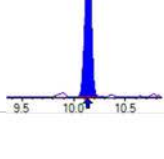
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 648957 (498.0 / 478.0) 14502	(10.18 , 1.00) (0.00 , N/A , 0.0)	502.8 172.7	0.0223 140.2 140.2	0.4811 [0.5000]	96.2%			
NMeFOSA	(512.0 / 219.0) 410464 (512.0 / 169.0) 269004	(10.61 , 1.00) (0.00 , N/A , 0.1)	743.1 757.2	0.6554 96.3 96.3	2.0942 [2.0000]	104.7%			
NEIFOSA	(526.0 / 219.0) 374167 (526.0 / 169.0) 408553	(10.70 , 1.00) (0.00 , N/A , 0.0)	959.1 802.9	1.0919 108.7 108.7	1.9712 [2.0000]	98.6%			
NMeFOSAA	(570.0 / 419.0) 107628 (570.0 / 483.0) 50562	(9.51 , 1.00) (0.01 , N/A , 0.0)	207.3 56.5	0.4698 94.1 94.1	0.5246 [0.5000]	104.9%			
NEIFOSAA	(584.0 / 419.0) 87898 (584.0 / 526.0) 53834	(9.69 , 1.00) (0.00 , N/A , 0.2)	160.8 1021.0	0.6125 102.0 102.0	0.4384 [0.5000]	87.7%			
NMeFOSE	(616.0 / 59.0) 77037	(10.58 , 1.00) (0.01 , N/A , 0.0)	859.9	N/A 0.0 0.0	1.9698 [2.0000]	98.5%			
NEIFOSE	(630.0 / 59.0) 11558	(10.68 , 1.00) (0.01 , N/A , 0.0)	245.0	N/A 0.0 0.0	2.3641 [2.0000]	118.2%			
HFPO-DA	(285.0 / 169.0) 152806 (285.0 / 185.0) 398634	(6.49 , 1.00) (0.00 , N/A , 0.0)	450.9 491.8	2.6088 94.8 94.8	0.9728 [1.0000]	97.3%			
ADONA	(377.0 / 85.0) 624401 (377.0 / 251.0) 77050	(7.40 , 1.14) (N/A , 0.00 , 0.4)	531.1 235.7	0.1234 107.3 107.3	0.9282 [0.9427]	98.5%			
9CI-PF3ONS	(531.0 / 351.0) 1672652 (533.0 / 353.0) 486691	(9.72 , 1.50) (N/A , 0.01 , -0.1)	545.9 501.9	0.2910 90.9 90.9	0.9474 [0.9333]	101.5%			
11CI-PF3OUDS	(631.0 / 451.0) 866629 (633.0 / 453.0) 247969	(10.01 , 1.54) (N/A , 0.01 , 0.1)	1418.9 652.7	0.2861 97.7 97.7	0.9390 [0.9432]	99.6%			

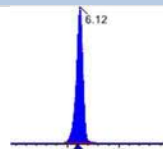
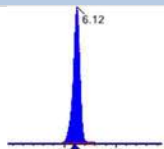
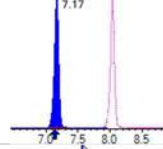
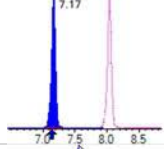
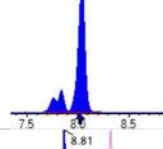
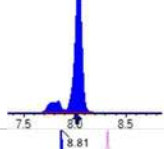
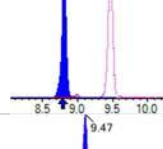
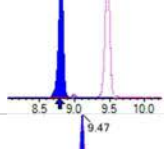
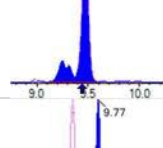
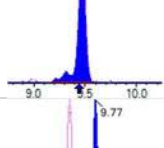
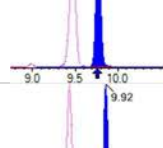
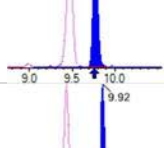
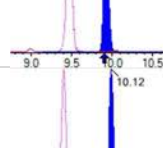
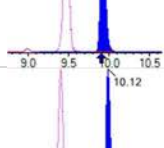
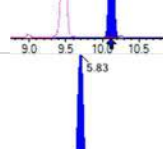
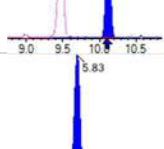
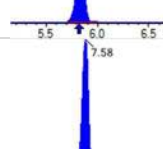
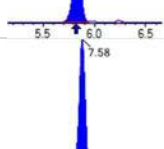
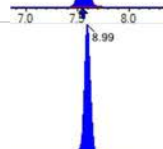
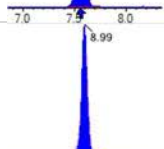

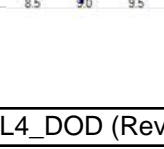
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 20018 (241.0 / 117.0) 29064	(4.48 , 0.90) (N/A , -0.01 , -0.1)	308.0 108.4	1.4518 106.3 106.3	1.7315 [2.0000]	86.6%			
5:3FTCA	(341.0 / 236.7) 116608 (341.0 / 217.0) 186380	(6.78 , 1.10) (N/A , -0.01 , 0.0)	411.5 290.3	1.5984 96.2 96.2	1.7705 [2.0000]	88.5%			
7:3FTCA	(441.0 / 317.0) 159963 (441.0 / 337.0) 130549	(8.60 , 1.40) (N/A , 0.00 , -0.1)	257.6 242.5	0.8161 97.6 97.6	1.9716 [2.0000]	98.6%			
PFEESA	(315.0 / 135.0) 369845 (315.0 / 83.0) 120770	(6.59 , 1.07) (N/A , -0.01 , -0.1)	557.7 300.8	0.3265 106.0 106.0	0.8648 [0.8925]	96.9%			
PFMPA	(229.0 / 85.0) 96792	(4.19 , 0.84) (N/A , -0.01 , 0.0)	683.2	N/A 0.0 0.0	0.9654 [1.0000]	96.5%			
PFMBA	(279.0 / 85.0) 247709	(5.38 , 1.08) (N/A , -0.01 , 0.0)	690.1	N/A 0.0 0.0	0.9438 [1.0000]	94.4%			
NFDHA	(295.0 / 201.0) 204242 (295.0 / 85.0) 179022	(6.02 , 0.98) (N/A , -0.01 , 0.1)	599.8 653.7	0.8765 100.9 100.9	0.9948 [1.0000]	99.5%			
13C3_PFBA_IIS	(216.0 / 172.0) 281426	(3.69 , N/A) (N/A , -0.01 , N/A)	564.0	N/A	1.0411 [1.0000]	104.1% { 96.7% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 391645	(6.14 , N/A) (N/A , -0.01 , N/A)	342.2	N/A	0.9862 [1.0000]	98.6% { 97.7% }			
13C4_PFOA_IIS	(417.0 / 372.0) 396973	(7.89 , N/A) (N/A , 0.00 , N/A)	784.8	N/A	0.9937 [1.0000]	99.4% { 99.9% }			
13C5_PFNA_IIS	(468.0 / 423.0) 349531	(8.63 , N/A) (N/A , 0.00 , N/A)	369.9	N/A	1.0574 [1.0000]	105.7% { 96.1% }			

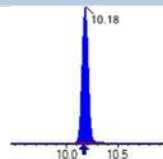
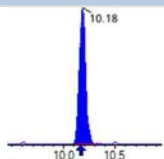
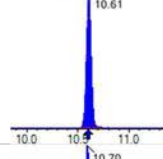
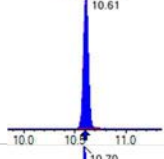
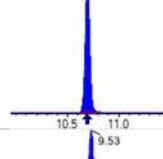
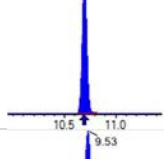
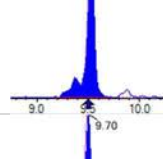
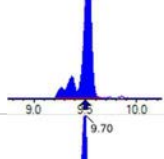
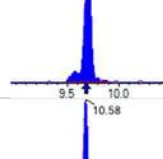
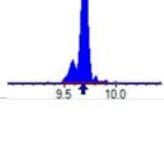
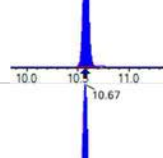
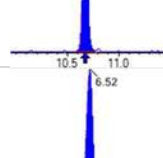
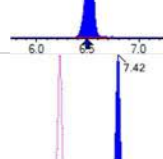
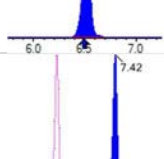
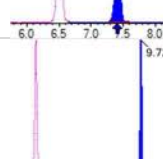
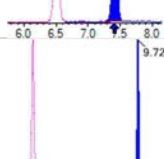
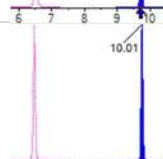
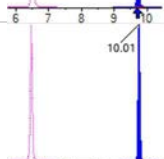

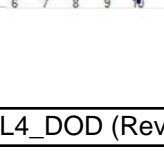
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 355779	(9.31 , N/A) (N/A , 0.00 , N/A)	304.3	N/A	0.9964 [1.0000]	99.6% { 107.1% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 699629	(8.01 , N/A) (N/A , 0.00 , N/A)	677.3	N/A	1.0031 [1.0000]	100.3% { 94.0% }			
13C4_PFOS_IIS	(503.0 / 79.9) 694269	(9.45 , N/A) (N/A , 0.01 , N/A)	590.6	N/A	1.0068 [1.0000]	100.7% { 105.3% }			
13C4_PFBA_EIS	(217.0 / 172.0) 2442869	(3.69 , N/A) (N/A , -0.01 , N/A)	599.3	N/A	8.0776 [8.0000]	101.0% { 101.3% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1546738	(4.99 , N/A) (N/A , -0.01 , N/A)	575.6	N/A	4.3216 [4.0000]	108.0% { 101.8% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 942634	(6.14 , N/A) (N/A , -0.01 , N/A)	407.6	N/A	2.1639 [2.0000]	108.2% { 109.0% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 796921	(7.07 , N/A) (N/A , 0.00 , N/A)	470.3	N/A	2.0475 [2.0000]	102.4% { 95.8% }			
13C8_PFOA_EIS	(421.0 / 376.0) 944997	(7.89 , N/A) (N/A , 0.00 , N/A)	541.7	N/A	2.1724 [2.0000]	108.6% { 116.3% }			
13C9_PFNA_EIS	(472.0 / 427.0) 386179	(8.63 , N/A) (N/A , 0.00 , N/A)	379.6	N/A	1.0037 [1.0000]	100.4% { 100.7% }			
13C6_PFDA_EIS	(519.0 / 474.0) 490075	(9.31 , N/A) (N/A , 0.01 , N/A)	339.7	N/A	1.0530 [1.0000]	105.3% { 109.2% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 615478	(9.72 , N/A) (N/A , 0.01 , N/A)	330.4	N/A	1.0912 [1.0000]	109.1% { 101.5% }			

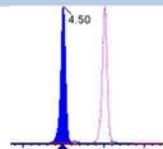
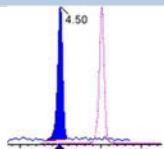
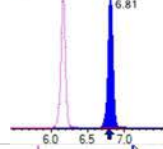
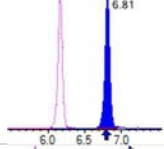
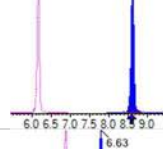
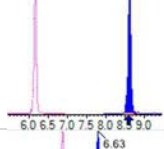
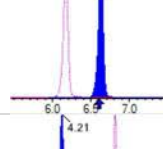
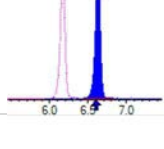
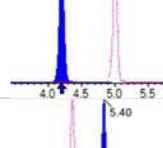
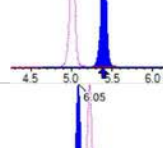
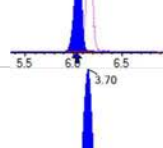
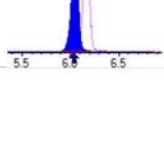
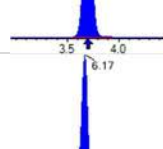
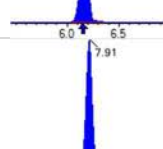
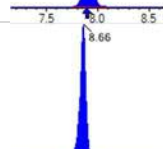

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 571140	(9.90 , N/A) (N/A , 0.01 , N/A)	854.6	N/A	0.9200 [1.0000]	92.0% { 83.7% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 436782	(10.14 , N/A) (N/A , 0.02 , N/A)	5773.5	N/A	1.0660 [1.0000]	106.6% { 99.2% }			
13C3_PFBs_EIS	(302.0 / 80.0) 2447615	(6.09 , N/A) (N/A , -0.01 , N/A)	662.5	N/A	2.0776 [2.0000]	103.9% { 97.2% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1254248	(8.01 , N/A) (N/A , 0.00 , N/A)	673.0	N/A	2.0057 [2.0000]	100.3% { 98.5% }			
13C8_PFOS_EIS	(507.0 / 80.0) 2000358	(9.45 , N/A) (N/A , 0.01 , N/A)	443.5	N/A	2.2247 [2.0000]	111.2% { 122.5% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 600888	(5.81 , N/A) (N/A , -0.01 , N/A)	587.9	N/A	4.3310 [4.0000]	108.3% { 116.8% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 741911	(7.55 , N/A) (N/A , 0.00 , N/A)	819.2	N/A	4.3030 [4.0000]	107.6% { 124.0% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 681581	(8.97 , N/A) (N/A , 0.01 , N/A)	489.1	N/A	4.0098 [4.0000]	100.2% { 111.6% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 2811232	(10.18 , N/A) (N/A , 0.01 , N/A)	753.3	N/A	2.3516 [2.0000]	117.6% { 118.0% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 450627	(10.61 , N/A) (N/A , 0.01 , N/A)	824.8	N/A	1.9437 [2.0000]	97.2% { 98.9% }			
D5_NEtFOSA_EIS	(531.0 / 169.0) 413031	(10.69 , N/A) (N/A , 0.01 , N/A)	1201.9	N/A	1.9995 [2.0000]	100.0% { 101.2% }			

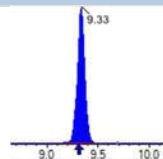
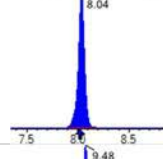
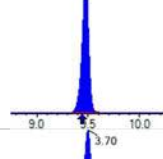
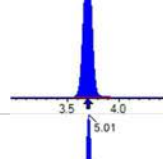
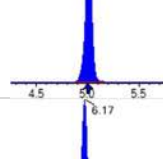
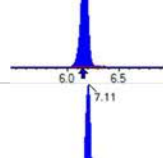
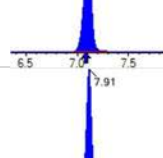
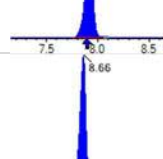
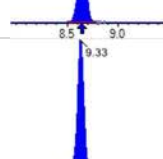
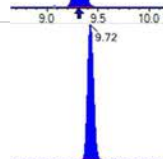

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 988216	(9.51 , N/A) (N/A , 0.01 , N/A)	372.9	N/A	4.0176 [4.0000]	100.4% { 94.3% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 924820	(9.69 , N/A) (N/A , 0.02 , N/A)	555.9	N/A	4.3898 [4.0000]	109.7% { 101.2% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 692788	(10.57 , N/A) (N/A , 0.01 , N/A)	1192.8	N/A	18.6518 [20.0000]	93.3% { 94.1% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 257876	(10.67 , N/A) (N/A , 0.01 , N/A)	1034.8	N/A	17.1678 [20.0000]	85.8% { 85.5% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 2047332	(6.48 , N/A) (N/A , -0.01 , N/A)	865.8	N/A	8.4634 [8.0000]	105.8% { 104.3% }			

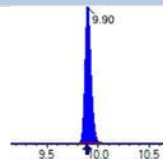
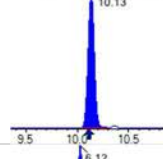
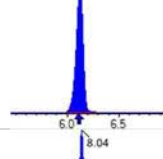
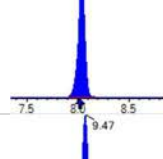
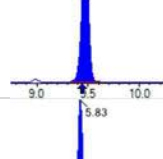
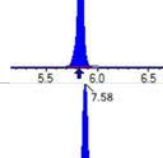
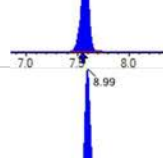
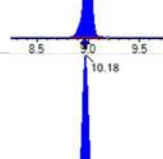
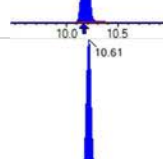
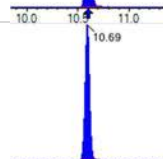
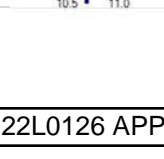
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 1014800	(3.70 , 1.00) (0.00 , N/A , 0.0)	390.3	N/A 0.0 0.0	3.9630 [4.0000]	99.1%			
PFPeA	(263.0 / 219.0) 605627 (263.0 / 69.0) 7279	(5.01 , 1.00) (0.00 , N/A , 0.3)	469.5 101.4	0.0120 111.4 111.4	1.8844 [2.0000]	94.2%			
PFHxA	(313.0 / 269.0) 409243 (313.0 / 119.0) 36650	(6.17 , 1.00) (0.00 , N/A , -0.1)	462.2 155.7	0.0896 99.5 99.5	0.9807 [1.0000]	98.1%			
PFHpA	(363.0 / 319.0) 367158 (363.0 / 169.0) 117924	(7.10 , 1.00) (0.00 , N/A , 0.0)	411.5 298.9	0.3212 105.5 105.5	0.9439 [1.0000]	94.4%			
PFOA	(413.0 / 369.0) 387791 (413.0 / 169.0) 124760	(7.92 , 1.00) (0.00 , N/A , 0.0)	432.1 399.9	0.3217 95.8 95.8	0.9665 [1.0000]	96.7%			
PFNA	(463.0 / 419.0) 325843 (463.0 / 169.0) 64157	(8.66 , 1.00) (0.00 , N/A , -0.2)	409.3 257.1	0.1969 94.2 94.2	1.0396 [1.0000]	104.0%			
PFDA	(513.0 / 469.0) 384990 (513.0 / 169.0) 40596	(9.33 , 1.00) (0.00 , N/A , -0.1)	396.7 148.5	0.1054 118.3 118.3	0.8319 [1.0000]	83.2%			
PFUnA	(563.0 / 519.0) 495674 (563.0 / 169.0) 51675	(9.73 , 1.00) (0.00 , N/A , 0.3)	482.9 214.2	0.1043 98.9 98.9	1.1101 [1.0000]	111.0%			
PFDoA	(613.0 / 569.0) 488967 (613.0 / 169.0) 78447	(9.90 , 1.00) (0.00 , N/A , -0.3)	555.2 245.2	0.1604 125.0 125.0	0.8589 [1.0000]	85.9%			
PFTTrDA	(663.0 / 619.0) 508368 (663.0 / 169.0) 98273	(10.03 , 1.01) (N/A , 0.00 , 0.2)	407.0 209.1	0.1933 84.7 84.7	1.0564 [1.0000]	105.6%			
PFTeDA	(713.0 / 669.0) 359126 (713.0 / 169.0) 74803	(10.14 , 1.00) (0.00 , N/A , -0.3)	327.2 176.1	0.2083 99.7 99.7	1.0248 [1.0000]	102.5%			

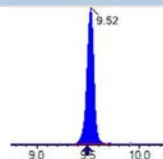


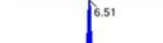

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 582544 (299.0 / 99.0) 368091	(6.12 , 1.00) (0.00 , N/A , 0.0)	540.4 466.9	0.6319 94.8 94.8	0.8355 [0.8847]	94.4%			
PFPeS	(349.0 / 80.0) 900300 (349.0 / 99.0) 347073	(7.17 , 0.89) (N/A , 0.03 , 0.1)	554.7 556.6	0.3855 104.7 104.7	0.7812 [0.9384]	83.2%			
PFHxS	(399.0 / 80.0) 836689 (399.0 / 99.0) 284608	(8.04 , 1.00) (0.00 , N/A , 0.1)	564.8 640.5	0.3402 106.4 106.4	0.7933 [0.9110]	87.1%			
PFHpS	(449.0 / 80.0) 779404 (449.0 / 99.0) 219866	(8.81 , 0.93) (N/A , 0.03 , 0.1)	653.0 431.0	0.2821 106.1 106.1	0.8983 [0.9514]	94.4%			
PFOS	(499.0 / 80.0) 1005570 (499.0 / 99.0) 222960	(9.47 , 1.00) (0.00 , N/A , 0.1)	340.8 742.9	0.2217 97.1 97.1	0.9502 [0.9275]	102.5%			
PFNS	(549.0 / 80.0) 962922 (549.0 / 99.0) 248076	(9.77 , 1.03) (N/A , 0.01 , -0.1)	667.9 431.6	0.2576 109.7 109.7	0.9132 [0.9599]	95.1%			
PFDS	(599.0 / 80.0) 1305704 (599.0 / 99.0) 254425	(9.92 , 1.05) (N/A , 0.01 , 0.1)	1094.8 604.4	0.1949 87.0 87.0	1.0127 [0.9631]	105.1%			
PFDoS	(699.0 / 80.0) 504784 (699.0 / 99.0) 114366	(10.12 , 1.07) (N/A , 0.01 , 0.2)	718.4 409.6	0.2266 110.7 110.7	0.9801 [0.9696]	101.1%			
4:2FTS	(327.0 / 307.0) 1507488 (327.0 / 81.0) 994640	(5.83 , 1.00) (0.00 , N/A , 0.2)	629.3 409.0	0.6598 102.3 102.3	3.2968 [3.7381]	88.2%			
6:2FTS	(427.0 / 407.0) 1054461 (427.0 / 81.0) 750316	(7.58 , 1.00) (0.00 , N/A , 0.1)	609.5 623.0	0.7116 100.6 100.6	3.8497 [3.7962]	101.4%			
8:2FTS	(527.0 / 507.0) 949292 (527.0 / 81.0) 805063	(8.99 , 1.00) (0.00 , N/A , 0.1)	699.3 613.5	0.8481 120.7 120.7	4.0700 [3.8332]	106.2%			

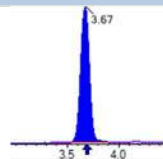
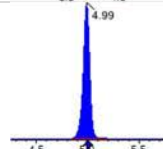
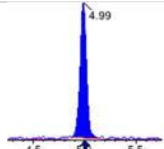
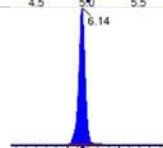
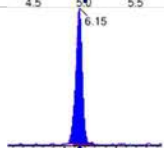
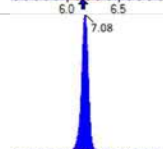
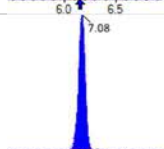
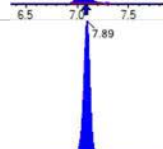
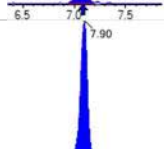
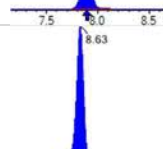
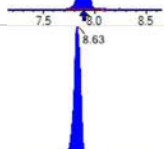
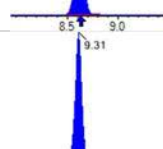
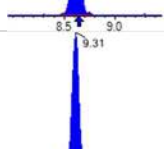
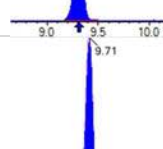
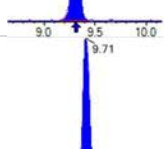
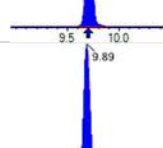
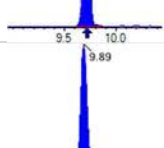
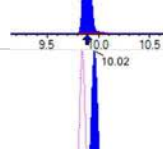
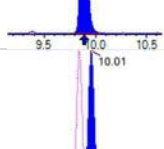
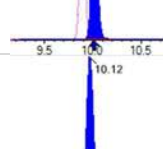
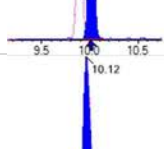
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (Δ RT-[min], Δ RT- CV[min], Δ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 1119098 (498.0 / 478.0) 27796	(10.18 , 1.00) (0.00 , N/A , -0.2)	696.3 543.0	0.0248 155.8 155.8	0.9301 [1.0000]	93.0%			
NMeFOSA	(512.0 / 219.0) 831514 (512.0 / 169.0) 537579	(10.61 , 1.00) (0.00 , N/A , -0.1)	1026.5 944.7	0.6465 95.0 95.0	4.2513 [4.0000]	106.3%			
NEIFOSA	(526.0 / 219.0) 749717 (526.0 / 169.0) 812083	(10.70 , 1.00) (0.00 , N/A , 0.0)	1098.0 1024.9	1.0832 107.9 107.9	3.8014 [4.0000]	95.0%			
NMeFOSAA	(570.0 / 419.0) 207604 (570.0 / 483.0) 111216	(9.53 , 1.00) (0.01 , N/A , 0.1)	234.8 1098.4	0.5357 107.3 107.3	0.9679 [1.0000]	96.8%			
NEIFOSAA	(584.0 / 419.0) 196954 (584.0 / 526.0) 107651	(9.70 , 1.00) (0.01 , N/A , 0.3)	556.4 791.9	0.5466 91.0 91.0	1.0040 [1.0000]	100.4%			
NMeFOSE	(616.0 / 59.0) 154251	(10.58 , 1.00) (0.00 , N/A , 0.0)	801.7	N/A 0.0 0.0	3.6090 [4.0000]	90.2%			
NEIFOSE	(630.0 / 59.0) 24180	(10.67 , 1.00) (0.01 , N/A , 0.0)	411.8	N/A 0.0 0.0	4.2561 [4.0000]	106.4%			
HFPO-DA	(285.0 / 169.0) 296732 (285.0 / 185.0) 757598	(6.52 , 1.00) (0.00 , N/A , 0.1)	414.7 810.6	2.5531 92.8 92.8	1.9128 [2.0000]	95.6%			
ADONA	(377.0 / 85.0) 1171156 (377.0 / 251.0) 144655	(7.42 , 1.14) (N/A , 0.02 , -0.1)	686.6 306.5	0.1235 107.4 107.4	1.7631 [1.8854]	93.5%			
9CI-PF3ONS	(531.0 / 351.0) 3508115 (533.0 / 353.0) 994286	(9.72 , 1.49) (N/A , 0.01 , 0.0)	609.5 532.3	0.2834 88.6 88.6	2.0122 [1.8665]	107.8%			
11CI-PF3OUDS	(631.0 / 451.0) 1674382 (633.0 / 453.0) 527641	(10.01 , 1.54) (N/A , 0.01 , 0.1)	1072.1 487.9	0.3151 107.7 107.7	1.8372 [1.8864]	97.4%			

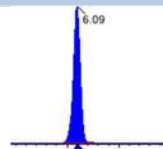
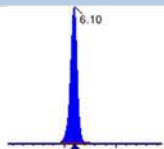
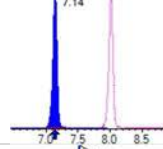
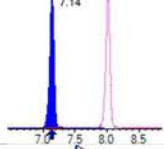
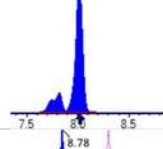
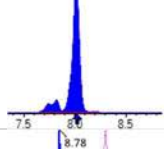
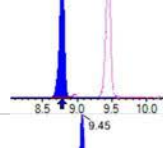
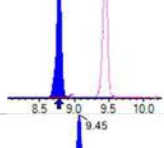
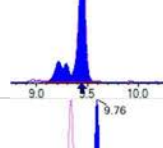
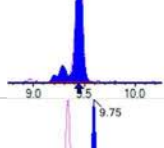
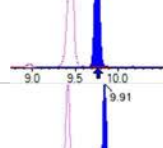
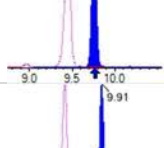
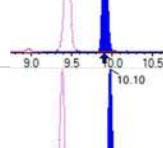
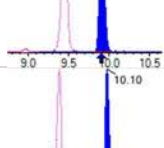
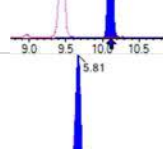
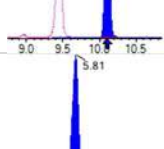
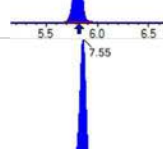
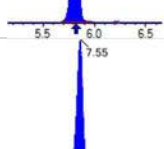
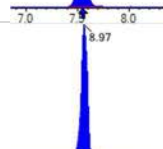
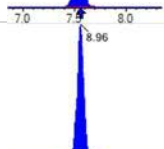

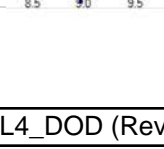
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 41076 (241.0 / 117.0) 54734	(4.50 , 0.90) (N/A , 0.01 , 0.0)	423.6 163.5	1.3325 97.6 97.6	3.6523 [4.0000]	91.3%			
5:3FTCA	(341.0 / 236.7) 239638 (341.0 / 217.0) 385069	(6.81 , 1.10) (N/A , 0.02 , 0.1)	535.2 431.3	1.6069 96.7 96.7	3.7439 [4.0000]	93.6%			
7:3FTCA	(441.0 / 317.0) 291164 (441.0 / 337.0) 241573	(8.62 , 1.40) (N/A , 0.03 , 0.0)	261.9 296.6	0.8297 99.3 99.3	3.6926 [4.0000]	92.3%			
PFEESA	(315.0 / 135.0) 741468 (315.0 / 83.0) 219092	(6.63 , 1.07) (N/A , 0.02 , -0.1)	735.2 432.8	0.2955 95.9 95.9	1.7840 [1.7849]	99.9%			
PFMPA	(229.0 / 85.0) 179186	(4.21 , 0.84) (N/A , 0.01 , 0.0)	745.3	N/A 0.0 0.0	1.8372 [2.0000]	91.9%			
PFMBA	(279.0 / 85.0) 484955	(5.40 , 1.08) (N/A , 0.01 , 0.0)	743.1	N/A 0.0 0.0	1.8994 [2.0000]	95.0%			
NFDHA	(295.0 / 201.0) 380734 (295.0 / 85.0) 345511	(6.05 , 0.98) (N/A , 0.02 , 0.1)	508.7 472.7	0.9075 104.5 104.5	1.9082 [2.0000]	95.4%			
13C3_PFBA_IIS	(216.0 / 172.0) 269582	(3.70 , N/A) (N/A , 0.00 , N/A)	580.4	N/A	0.9973 [1.0000]	99.7% { 92.6% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 362678	(6.17 , N/A) (N/A , 0.02 , N/A)	378.1	N/A	0.9132 [1.0000]	91.3% { 90.5% }			
13C4_PFOA_IIS	(417.0 / 372.0) 378608	(7.91 , N/A) (N/A , 0.02 , N/A)	578.9	N/A	0.9477 [1.0000]	94.8% { 95.3% }			
13C5_PFNA_IIS	(468.0 / 423.0) 315229	(8.66 , N/A) (N/A , 0.03 , N/A)	477.7	N/A	0.9536 [1.0000]	95.4% { 86.7% }			

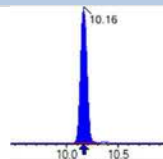
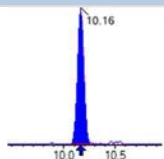
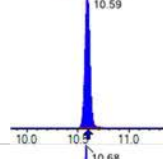
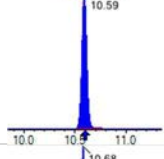
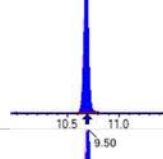
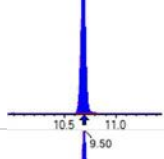
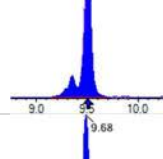
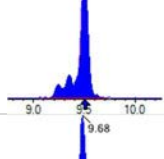
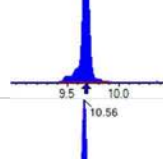
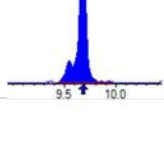
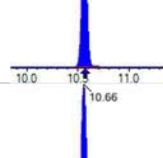
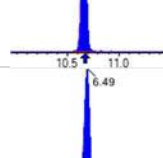
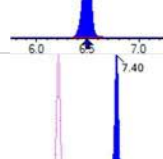
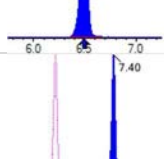
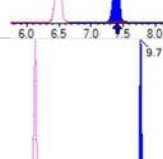
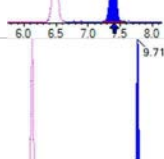
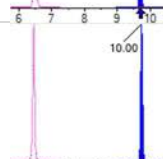
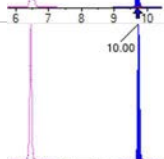

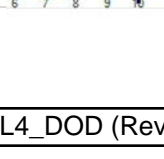
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 396509	(9.33 , N/A) (N/A , 0.03 , N/A)	421.2	N/A	1.1104 [1.0000]	111.0% { 119.4% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 676952	(8.04 , N/A) (N/A , 0.02 , N/A)	735.8	N/A	0.9706 [1.0000]	97.1% { 91.0% }			
13C4_PFOS_IIS	(503.0 / 79.9) 665722	(9.48 , N/A) (N/A , 0.03 , N/A)	573.7	N/A	0.9654 [1.0000]	96.5% { 101.0% }			
13C4_PFBA_EIS	(217.0 / 172.0) 2442878	(3.70 , N/A) (N/A , 0.00 , N/A)	644.7	N/A	8.4326 [8.0000]	105.4% { 101.3% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1504608	(5.01 , N/A) (N/A , 0.01 , N/A)	562.4	N/A	4.5396 [4.0000]	113.5% { 99.0% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 916110	(6.17 , N/A) (N/A , 0.02 , N/A)	536.0	N/A	2.2710 [2.0000]	113.6% { 105.9% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 812292	(7.11 , N/A) (N/A , 0.03 , N/A)	439.5	N/A	2.2536 [2.0000]	112.7% { 97.7% }			
13C8_PFOA_EIS	(421.0 / 376.0) 863811	(7.91 , N/A) (N/A , 0.02 , N/A)	636.2	N/A	2.0821 [2.0000]	104.1% { 106.3% }			
13C9_PFNA_EIS	(472.0 / 427.0) 346096	(8.66 , N/A) (N/A , 0.03 , N/A)	390.0	N/A	0.9974 [1.0000]	99.7% { 90.2% }			
13C6_PFDA_EIS	(519.0 / 474.0) 519593	(9.33 , N/A) (N/A , 0.03 , N/A)	633.7	N/A	1.0017 [1.0000]	100.2% { 115.8% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 563842	(9.72 , N/A) (N/A , 0.01 , N/A)	626.0	N/A	0.8970 [1.0000]	89.7% { 93.0% }			

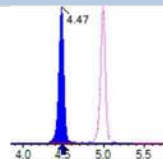
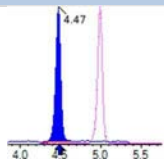
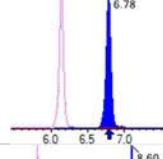
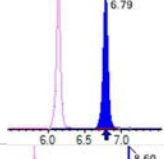
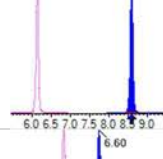
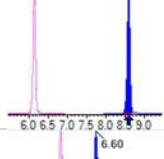
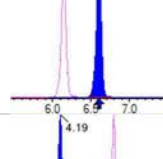
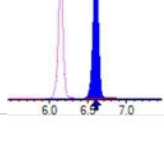
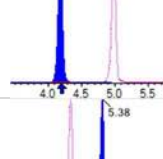
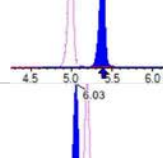
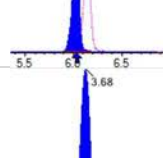
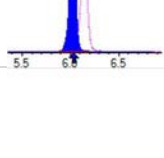
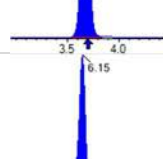
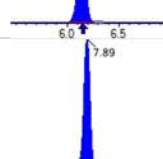
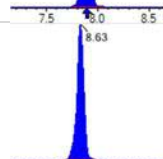

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 664288	(9.90 , N/A) (N/A , 0.01 , N/A)	403.5	N/A	0.9602 [1.0000]	96.0% { 97.3% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 385817	(10.13 , N/A) (N/A , 0.01 , N/A)	898.5	N/A	0.8449 [1.0000]	84.5% { 87.6% }			
13C3_PFBs_EIS	(302.0 / 80.0) 2499957	(6.12 , N/A) (N/A , 0.02 , N/A)	486.7	N/A	2.1931 [2.0000]	109.7% { 99.3% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1372387	(8.04 , N/A) (N/A , 0.02 , N/A)	753.7	N/A	2.2681 [2.0000]	113.4% { 107.8% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1824079	(9.47 , N/A) (N/A , 0.03 , N/A)	325.4	N/A	2.1157 [2.0000]	105.8% { 111.7% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 641114	(5.83 , N/A) (N/A , 0.02 , N/A)	511.0	N/A	4.7758 [4.0000]	119.4% { 124.6% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 800490	(7.58 , N/A) (N/A , 0.03 , N/A)	687.1	N/A	4.7983 [4.0000]	120.0% { 133.8% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 692478	(8.99 , N/A) (N/A , 0.03 , N/A)	339.1	N/A	4.2104 [4.0000]	105.3% { 113.3% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 2507357	(10.18 , N/A) (N/A , 0.02 , N/A)	744.8	N/A	2.1873 [2.0000]	109.4% { 105.2% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 449683	(10.61 , N/A) (N/A , 0.01 , N/A)	663.4	N/A	2.0228 [2.0000]	101.1% { 98.7% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 429143	(10.69 , N/A) (N/A , 0.01 , N/A)	1062.5	N/A	2.1666 [2.0000]	108.3% { 105.1% }			

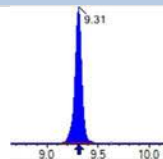
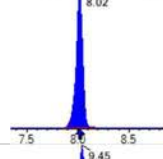
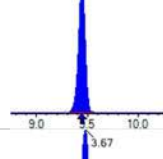
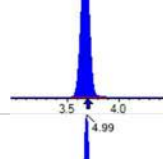
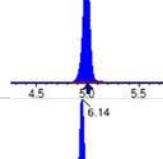
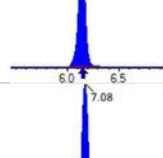
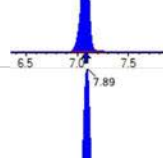
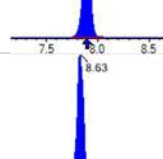
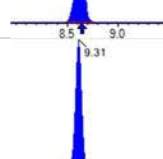
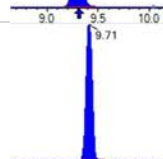

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 1033157	(9.52 , N/A) (N/A , 0.03 , N/A)	421.0	N/A	4.3804 [4.0000]	109.5% { 98.5% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 904858	(9.69 , N/A) (N/A , 0.02 , N/A)	403.8	N/A	4.4792 [4.0000]	112.0% { 99.0% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 757114	(10.57 , N/A) (N/A , 0.01 , N/A)	1225.8	N/A	21.2577 [20.0000]	106.3% { 102.8% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 299660	(10.67 , N/A) (N/A , 0.01 , N/A)	1467.1	N/A	20.8050 [20.0000]	104.0% { 99.4% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 2021796	(6.51 , N/A) (N/A , 0.02 , N/A)	748.7	N/A	9.0254 [8.0000]	112.8% { 103.0% }			

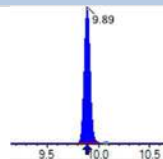
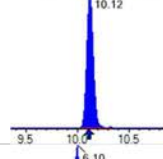
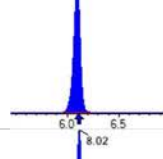
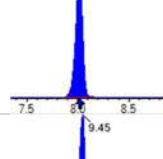
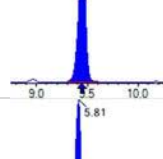
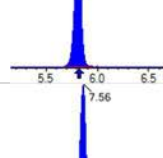
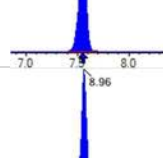
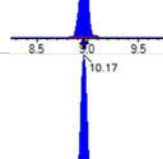
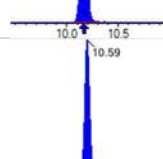
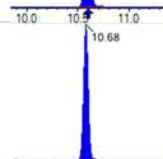
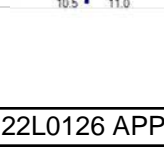
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 2134503	(3.67 , 1.00) (0.00 , N/A , 0.0)	437.5	N/A 0.0 0.0	8.3066 [8.0000]	103.8%			
PFPeA	(263.0 / 219.0) 1307119 (263.0 / 69.0) 14733	(4.99 , 1.00) (0.00 , N/A , 0.2)	569.4 171.3	0.0113 104.4 104.4	4.0970 [4.0000]	102.4%			
PFHxA	(313.0 / 269.0) 851872 (313.0 / 119.0) 75481	(6.14 , 1.00) (0.00 , N/A , -0.1)	577.7 287.7	0.0886 98.4 98.4	2.0909 [2.0000]	104.5%			
PFHpA	(363.0 / 319.0) 792308 (363.0 / 169.0) 204777	(7.08 , 1.00) (0.00 , N/A , 0.1)	588.7 319.4	0.2585 84.9 84.9	2.0667 [2.0000]	103.3%			
PFOA	(413.0 / 369.0) 868332 (413.0 / 169.0) 285456	(7.89 , 1.00) (0.00 , N/A , -0.1)	587.7 469.4	0.3287 97.8 97.8	2.0453 [2.0000]	102.3%			
PFNA	(463.0 / 419.0) 654060 (463.0 / 169.0) 138788	(8.63 , 1.00) (0.00 , N/A , -0.2)	451.3 304.7	0.2122 101.5 101.5	1.9539 [2.0000]	97.7%			
PFDA	(513.0 / 469.0) 869903 (513.0 / 169.0) 96011	(9.31 , 1.00) (0.00 , N/A , 0.0)	511.7 366.5	0.1104 123.8 123.8	2.0540 [2.0000]	102.7%			
PFUnA	(563.0 / 519.0) 998041 (563.0 / 169.0) 104330	(9.71 , 1.00) (0.00 , N/A , 0.2)	615.9 230.8	0.1045 99.2 99.2	1.9233 [2.0000]	96.2%			
PFDoA	(613.0 / 569.0) 1049515 (613.0 / 169.0) 128361	(9.89 , 1.00) (-0.01 , N/A , 0.0)	694.5 386.2	0.1223 95.3 95.3	1.8360 [2.0000]	91.8%			
PFTTrDA	(663.0 / 619.0) 966250 (663.0 / 169.0) 190238	(10.02 , 1.01) (N/A , 0.00 , 0.2)	677.8 298.8	0.1969 86.3 86.3	1.9998 [2.0000]	100.0%			
PFTeDA	(713.0 / 669.0) 647357 (713.0 / 169.0) 127509	(10.12 , 1.00) (0.00 , N/A , 0.3)	563.7 261.5	0.1970 94.3 94.3	2.0228 [2.0000]	101.1%			

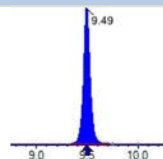
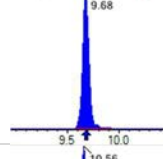
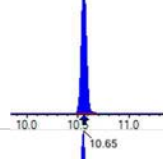
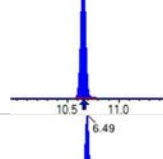
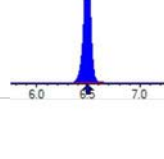
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 1176738 (299.0 / 99.0) 764720	(6.09 , 1.00) (0.00 , N/A , 0.0)	547.6 623.0	0.6499 97.5 97.5	1.6754 [1.7695]	94.7%			
PFPeS	(349.0 / 80.0) 2012796 (349.0 / 99.0) 730770	(7.14 , 0.89) (N/A , 0.00 , 0.0)	529.3 569.4	0.3631 98.6 98.6	1.9392 [1.8768]	103.3%			
PFHxS	(399.0 / 80.0) 1832508 (399.0 / 99.0) 591976	(8.01 , 1.00) (0.00 , N/A , 0.0)	660.0 588.0	0.3230 101.0 101.0	1.9292 [1.8220]	105.9%			
PFHpS	(449.0 / 80.0) 1678590 (449.0 / 99.0) 456601	(8.78 , 0.93) (N/A , 0.00 , 0.0)	648.0 687.0	0.2720 102.3 102.3	1.9397 [1.9028]	101.9%			
PFOS	(499.0 / 80.0) 2031541 (499.0 / 99.0) 454887	(9.45 , 1.00) (0.00 , N/A , -0.1)	323.7 511.1	0.2239 98.0 98.0	1.9247 [1.8550]	103.8%			
PFNS	(549.0 / 80.0) 2117170 (549.0 / 99.0) 507169	(9.76 , 1.03) (N/A , 0.00 , 0.1)	792.6 681.6	0.2396 102.0 102.0	2.0130 [1.9198]	104.9%			
PFDS	(599.0 / 80.0) 2808505 (599.0 / 99.0) 628458	(9.91 , 1.05) (N/A , 0.00 , 0.0)	1088.2 711.9	0.2238 99.9 99.9	2.1838 [1.9262]	113.4%			
PFDoS	(699.0 / 80.0) 1013842 (699.0 / 99.0) 222348	(10.10 , 1.07) (N/A , -0.01 , 0.1)	532.6 512.3	0.2193 107.1 107.1	1.9736 [1.9391]	101.8%			
4:2FTS	(327.0 / 307.0) 3481637 (327.0 / 81.0) 2043644	(5.81 , 1.00) (0.00 , N/A , -0.3)	664.6 579.6	0.5870 91.0 91.0	8.3003 [7.4762]	111.0%			
6:2FTS	(427.0 / 407.0) 1834284 (427.0 / 81.0) 1403976	(7.55 , 1.00) (0.00 , N/A , 0.0)	557.4 842.8	0.7654 108.3 108.3	7.4171 [7.5923]	97.7%			
8:2FTS	(527.0 / 507.0) 2099037 (527.0 / 81.0) 1371633	(8.97 , 1.00) (0.00 , N/A , 0.6)	430.8 458.3	0.6535 93.0 93.0	8.2742 [7.6663]	107.9%			

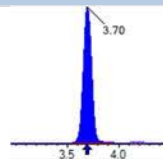
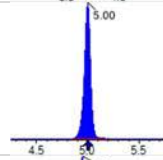
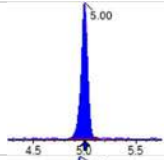
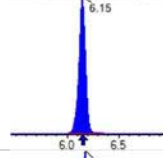
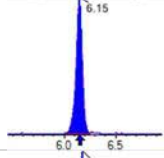
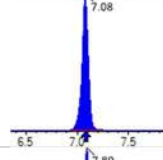
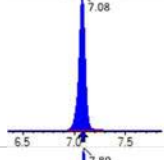
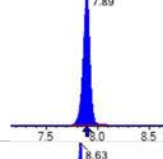
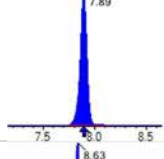
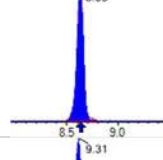
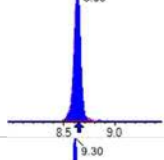
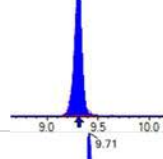
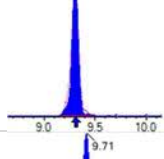
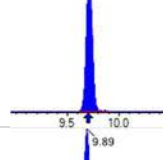
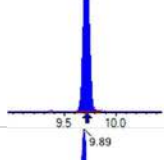
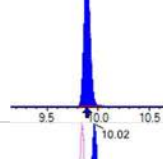
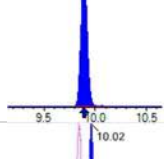
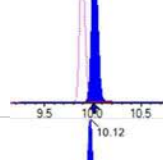
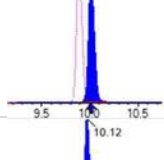
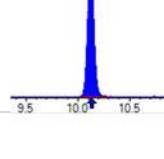
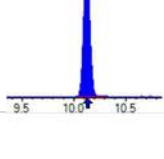
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 2241562 (498.0 / 478.0) 48093	(10.16 , 1.00) (0.00 , N/A , 0.0)	518.3 258.3	0.0215 134.6 134.6	2.1340 [2.0000]	106.7%			
NMeFOSA	(512.0 / 219.0) 1729996 (512.0 / 169.0) 1174162	(10.59 , 1.00) (0.00 , N/A , 0.1)	784.8 772.2	0.6787 99.8 99.8	9.0726 [8.0000]	113.4%			
NEIFOSA	(526.0 / 219.0) 1576571 (526.0 / 169.0) 1692636	(10.68 , 1.00) (0.00 , N/A , 0.0)	1417.3 1142.5	1.0736 106.9 106.9	8.0774 [8.0000]	101.0%			
NMeFOSAA	(570.0 / 419.0) 376637 (570.0 / 483.0) 222418	(9.50 , 1.00) (0.01 , N/A , 0.3)	307.0 337.0	0.5905 118.3 118.3	1.8882 [2.0000]	94.4%			
NEIFOSAA	(584.0 / 419.0) 396549 (584.0 / 526.0) 187070	(9.68 , 1.00) (0.00 , N/A , 0.2)	628.1 399.1	0.4717 78.5 78.5	2.1434 [2.0000]	107.2%			
NMeFOSE	(616.0 / 59.0) 373823	(10.56 , 1.00) (0.01 , N/A , 0.0)	849.7	N/A 0.0 0.0	8.6049 [8.0000]	107.6%			
NEtFOSE	(630.0 / 59.0) 46543	(10.66 , 1.00) (0.01 , N/A , 0.0)	615.4	N/A 0.0 0.0	7.7021 [8.0000]	96.3%			
HFPO-DA	(285.0 / 169.0) 634072 (285.0 / 185.0) 1560605	(6.49 , 1.00) (0.00 , N/A , 0.0)	484.3 538.3	2.4612 89.4 89.4	4.0422 [4.0000]	101.1%			
ADONA	(377.0 / 85.0) 2483108 (377.0 / 251.0) 291581	(7.40 , 1.14) (N/A , 0.00 , 0.1)	641.1 441.8	0.1174 102.1 102.1	3.6966 [3.7708]	98.0%			
9CI-Pf3ONS	(531.0 / 351.0) 7374880 (533.0 / 353.0) 2198712	(9.71 , 1.50) (N/A , 0.00 , 0.0)	817.9 701.4	0.2981 93.2 93.2	4.1832 [3.7330]	112.1%			
11CI-PF3OUDS	(631.0 / 451.0) 3918059 (633.0 / 453.0) 1258068	(10.00 , 1.54) (N/A , 0.00 , 0.1)	1085.8 977.6	0.3211 109.7 109.7	4.2514 [3.7728]	112.7%			

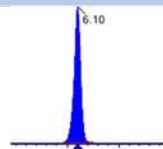
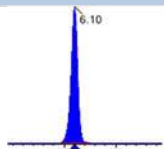
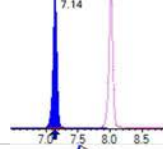
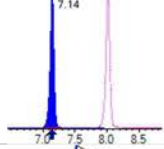
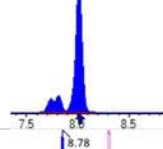
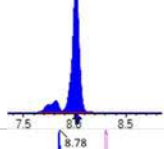
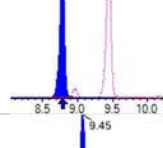
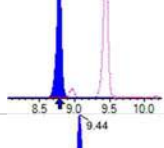
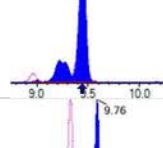
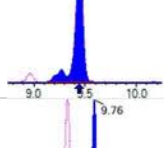
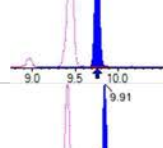
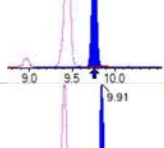
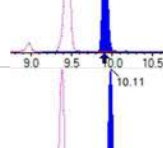
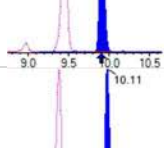
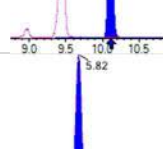
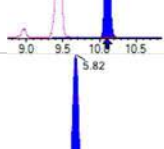
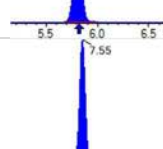
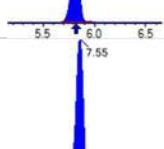
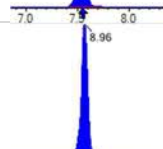
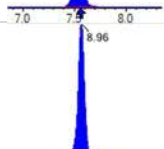

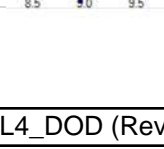
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 85562 (241.0 / 117.0) 119396	(4.47 , 0.90) (N/A , -0.01 , 0.1)	445.2 289.1	1.3954 102.2 102.2	7.6638 [8.0000]	95.8%			
5:3FTCA	(341.0 / 236.7) 484061 (341.0 / 217.0) 816194	(6.78 , 1.10) (N/A , 0.00 , 0.0)	371.1 451.0	1.6861 101.4 101.4	7.7460 [8.0000]	96.8%			
7:3FTCA	(441.0 / 317.0) 612484 (441.0 / 337.0) 578603	(8.60 , 1.40) (N/A , 0.00 , -0.1)	474.4 453.1	0.9447 113.0 113.0	7.9560 [8.0000]	99.5%			
PFEESA	(315.0 / 135.0) 1429553 (315.0 / 83.0) 442994	(6.60 , 1.07) (N/A , 0.00 , 0.1)	672.3 497.0	0.3099 100.6 100.6	3.5229 [3.5698]	98.7%			
PFMPA	(229.0 / 85.0) 407274	(4.19 , 0.84) (N/A , -0.01 , 0.0)	891.6	N/A 0.0 0.0	4.2065 [4.0000]	105.2%			
PFMBA	(279.0 / 85.0) 1047174	(5.38 , 1.08) (N/A , -0.01 , 0.0)	609.7	N/A 0.0 0.0	4.1315 [4.0000]	103.3%			
NFDHA	(295.0 / 201.0) 811528 (295.0 / 85.0) 731014	(6.03 , 0.98) (N/A , 0.00 , 0.1)	550.7 565.4	0.9008 103.7 103.7	4.1659 [4.0000]	104.1%			
13C3_PFBA_IIS	(216.0 / 172.0) 275182	(3.68 , N/A) (N/A , -0.02 , N/A)	486.5	N/A	1.0180 [1.0000]	101.8% { 94.6% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 389076	(6.15 , N/A) (N/A , 0.00 , N/A)	361.0	N/A	0.9797 [1.0000]	98.0% { 97.1% }			
13C4_PFOA_IIS	(417.0 / 372.0) 408319	(7.89 , N/A) (N/A , 0.00 , N/A)	653.6	N/A	1.0221 [1.0000]	102.2% { 102.7% }			
13C5_PFNA_IIS	(468.0 / 423.0) 316510	(8.63 , N/A) (N/A , 0.01 , N/A)	380.5	N/A	0.9575 [1.0000]	95.8% { 87.0% }			

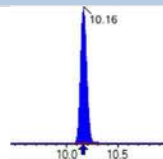
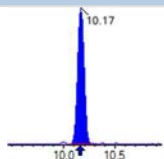
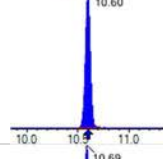
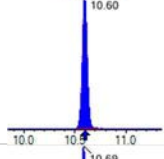
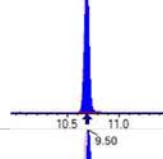
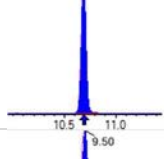
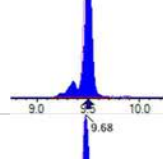
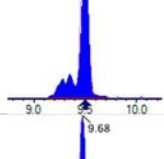
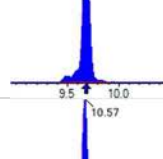
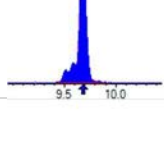
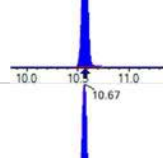
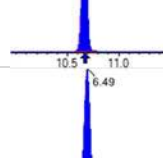
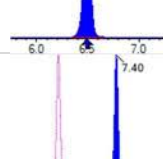
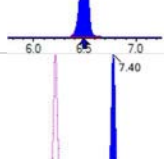
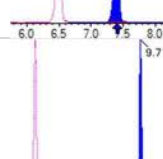
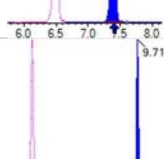
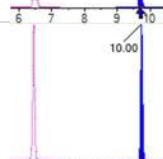
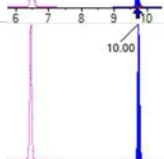

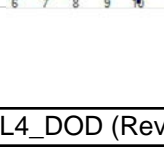
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 407921	(9.31 , N/A) (N/A , 0.00 , N/A)	382.8	N/A	1.1424 [1.0000]	114.2% { 122.8% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 685987	(8.02 , N/A) (N/A , 0.00 , N/A)	579.7	N/A	0.9836 [1.0000]	98.4% { 92.2% }			
13C4_PFOS_IIS	(503.0 / 79.9) 790524	(9.45 , N/A) (N/A , 0.00 , N/A)	526.8	N/A	1.1464 [1.0000]	114.6% { 119.9% }			
13C4_PFBA_EIS	(217.0 / 172.0) 2451434	(3.67 , N/A) (N/A , -0.02 , N/A)	618.1	N/A	8.2899 [8.0000]	103.6% { 101.7% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1493631	(4.99 , N/A) (N/A , -0.01 , N/A)	603.3	N/A	4.2007 [4.0000]	105.0% { 98.3% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 894415	(6.14 , N/A) (N/A , 0.00 , N/A)	518.5	N/A	2.0668 [2.0000]	103.3% { 103.4% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 800604	(7.08 , N/A) (N/A , 0.00 , N/A)	529.5	N/A	2.0705 [2.0000]	103.5% { 96.3% }			
13C8_PFOA_EIS	(421.0 / 376.0) 914030	(7.89 , N/A) (N/A , 0.00 , N/A)	608.4	N/A	2.0428 [2.0000]	102.1% { 112.5% }			
13C9_PFNA_EIS	(472.0 / 427.0) 369645	(8.63 , N/A) (N/A , 0.00 , N/A)	547.5	N/A	1.0609 [1.0000]	106.1% { 96.4% }			
13C6_PFDA_EIS	(519.0 / 474.0) 475537	(9.31 , N/A) (N/A , 0.00 , N/A)	497.9	N/A	0.8911 [1.0000]	89.1% { 106.0% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 655289	(9.71 , N/A) (N/A , 0.00 , N/A)	560.8	N/A	1.0133 [1.0000]	101.3% { 108.1% }			

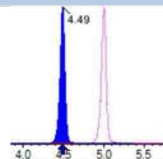
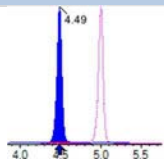
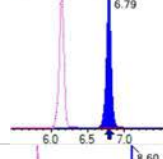
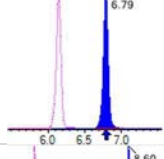
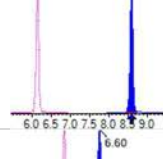
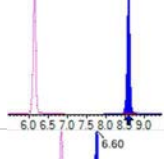
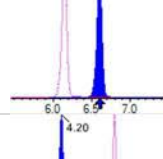
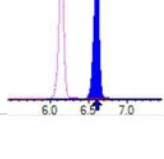
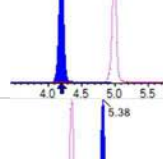
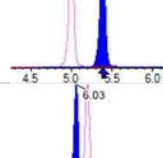
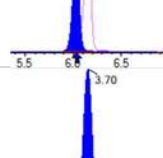
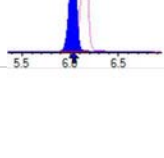
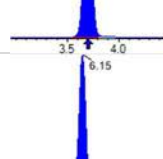
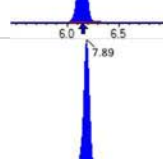
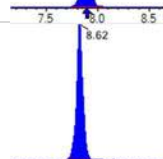

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 666988	(9.89 , N/A) (N/A , 0.00 , N/A)	503.6	N/A	0.9371 [1.0000]	93.7% { 97.7% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 352359	(10.12 , N/A) (N/A , 0.00 , N/A)	699.4	N/A	0.7500 [1.0000]	75.0% { 80.0% }			
13C3_PFBs_EIS	(302.0 / 80.0) 2518397	(6.10 , N/A) (N/A , -0.01 , N/A)	574.6	N/A	2.1802 [2.0000]	109.0% { 100.0% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1235938	(8.02 , N/A) (N/A , 0.00 , N/A)	697.5	N/A	2.0157 [2.0000]	100.8% { 97.1% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1819366	(9.45 , N/A) (N/A , 0.00 , N/A)	299.6	N/A	1.7771 [2.0000]	88.9% { 111.4% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 588114	(5.81 , N/A) (N/A , 0.00 , N/A)	715.9	N/A	4.3232 [4.0000]	108.1% { 114.3% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 722758	(7.56 , N/A) (N/A , 0.00 , N/A)	734.2	N/A	4.2753 [4.0000]	106.9% { 120.8% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 753177	(8.96 , N/A) (N/A , 0.00 , N/A)	477.2	N/A	4.5191 [4.0000]	113.0% { 123.3% }			
13C8_PFOA_EIS	(506.0 / 78.0) 2188858	(10.17 , N/A) (N/A , 0.00 , N/A)	602.8	N/A	1.6080 [2.0000]	80.4% { 91.9% }			
D3_NMeFOA_EIS	(515.0 / 169.0) 438404	(10.59 , N/A) (N/A , -0.01 , N/A)	1009.0	N/A	1.6608 [2.0000]	83.0% { 96.2% }			
D5_NEtFOA_EIS	(531.0 / 169.0) 424711	(10.68 , N/A) (N/A , -0.01 , N/A)	1157.4	N/A	1.8057 [2.0000]	90.3% { 104.0% }			

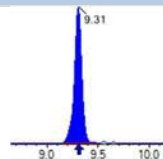
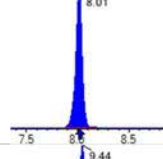
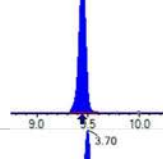
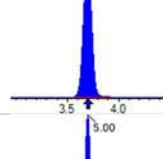
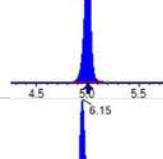
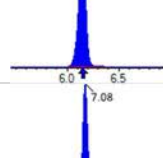
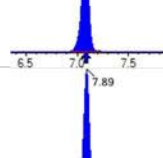
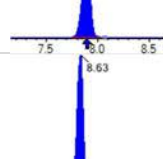
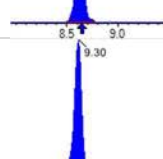
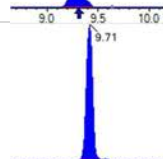

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 960848	(9.49 , N/A) (N/A , 0.00 , N/A)	360.1	N/A	3.4307 [4.0000]	85.8% { 91.6% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 853328	(9.68 , N/A) (N/A , 0.01 , N/A)	404.4	N/A	3.5572 [4.0000]	88.9% { 93.4% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 769555	(10.56 , N/A) (N/A , 0.00 , N/A)	925.5	N/A	18.1958 [20.0000]	91.0% { 104.5% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 318727	(10.65 , N/A) (N/A , 0.00 , N/A)	1093.1	N/A	18.6353 [20.0000]	93.2% { 105.7% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 2044449	(6.49 , N/A) (N/A , 0.00 , N/A)	728.0	N/A	8.5073 [8.0000]	106.3% { 104.2% }			

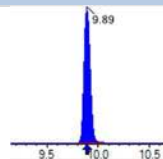
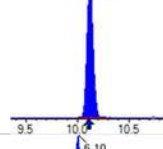
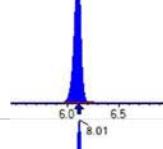
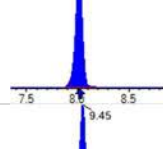
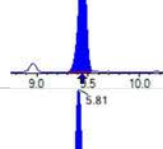
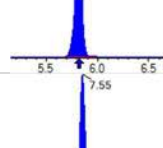
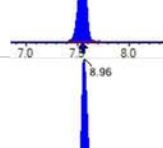
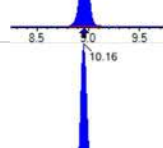
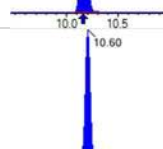
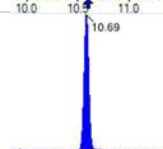
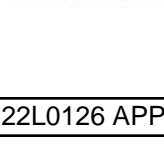
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 5163547	(3.70 , 1.00) (0.00 , N/A , 0.0)	565.5	N/A 0.0 0.0	20.4285 [20.0000]	102.1%			
PFPeA	(263.0 / 219.0) 3157784 (263.0 / 69.0) 34081	(5.00 , 1.00) (0.00 , N/A , 0.0)	553.6 326.3	0.0108 100.0 100.0	9.7307 [10.0000]	97.3%			
PFHxA	(313.0 / 269.0) 1972422 (313.0 / 119.0) 177542	(6.15 , 1.00) (0.00 , N/A , 0.0)	493.5 346.2	0.0900 100.0 100.0	5.0051 [5.0000]	100.1%			
PFHpA	(363.0 / 319.0) 1740007 (363.0 / 169.0) 529709	(7.08 , 1.00) (0.00 , N/A , 0.1)	501.7 456.2	0.3044 100.0 100.0	4.3687 [5.0000]	87.4%			
PFOA	(413.0 / 369.0) 1951806 (413.0 / 169.0) 655782	(7.89 , 1.00) (0.00 , N/A , 0.0)	637.3 565.4	0.3360 100.0 100.0	5.1719 [5.0000]	103.4%			
PFNA	(463.0 / 419.0) 1704795 (463.0 / 169.0) 356508	(8.63 , 1.00) (0.00 , N/A , -0.1)	598.9 601.6	0.2091 100.0 100.0	4.9078 [5.0000]	98.2%			
PFDA	(513.0 / 469.0) 2149855 (513.0 / 169.0) 191597	(9.31 , 1.00) (0.00 , N/A , 0.2)	387.0 331.9	0.0891 100.0 100.0	5.3804 [5.0000]	107.6%			
PFUnA	(563.0 / 519.0) 2482021 (563.0 / 169.0) 261533	(9.71 , 1.00) (0.00 , N/A , -0.1)	642.5 415.8	0.1054 100.0 100.0	5.1710 [5.0000]	103.4%			
PFDoA	(613.0 / 569.0) 2823844 (613.0 / 169.0) 362509	(9.89 , 1.00) (0.00 , N/A , -0.1)	1227.1 816.3	0.1284 100.0 100.0	4.8272 [5.0000]	96.5%			
PFTTrDA	(663.0 / 619.0) 2238356 (663.0 / 169.0) 510836	(10.02 , 1.01) (N/A , 0.00 , 0.3)	1027.0 621.1	0.2282 100.0 100.0	4.5269 [5.0000]	90.5%			
PFTeDA	(713.0 / 669.0) 1644216 (713.0 / 169.0) 343419	(10.12 , 1.00) (0.00 , N/A , 0.1)	682.6 389.5	0.2089 100.0 100.0	4.1113 [5.0000]	82.2%			

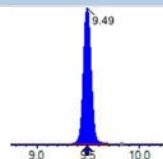




Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 2937542 (299.0 / 99.0) 1957415	(6.10 , 1.00) (0.00 , N/A , 0.0)	504.0 580.7	0.6663 100.0 100.0	4.1832 [4.4237]	94.6%			
PFPeS	(349.0 / 80.0) 5282225 (349.0 / 99.0) 1944624	(7.14 , 0.89) (N/A , 0.00 , -0.1)	727.7 578.9	0.3681 100.0 100.0	4.9391 [4.6919]	105.3%			
PFHxS	(399.0 / 80.0) 4398738 (399.0 / 99.0) 1406802	(8.01 , 1.00) (0.00 , N/A , 0.0)	845.5 797.7	0.3198 100.0 100.0	4.4943 [4.5549]	98.7%			
PFHpS	(449.0 / 80.0) 3973668 (449.0 / 99.0) 1056573	(8.78 , 0.93) (N/A , 0.00 , 0.1)	538.4 542.7	0.2659 100.0 100.0	5.1171 [4.7570]	107.6%			
PFOS	(499.0 / 80.0) 4453045 (499.0 / 99.0) 1017063	(9.45 , 1.00) (0.00 , N/A , 0.1)	430.2 739.1	0.2284 100.0 100.0	4.7015 [4.6375]	101.4%			
PFNS	(549.0 / 80.0) 5494383 (549.0 / 99.0) 1290855	(9.76 , 1.03) (N/A , 0.00 , -0.1)	901.4 733.3	0.2349 100.0 100.0	5.8217 [4.7994]	121.3%			
PFDS	(599.0 / 80.0) 6399815 (599.0 / 99.0) 1434117	(9.91 , 1.05) (N/A , 0.00 , 0.0)	1169.9 981.5	0.2241 100.0 100.0	5.5456 [4.8155]	115.2%			
PFDoS	(699.0 / 80.0) 2438736 (699.0 / 99.0) 499161	(10.11 , 1.07) (N/A , 0.00 , 0.2)	1587.3 723.7	0.2047 100.0 100.0	5.2904 [4.8478]	109.1%			
4:2FTS	(327.0 / 307.0) 7377622 (327.0 / 81.0) 4760128	(5.82 , 1.00) (0.00 , N/A , 0.0)	524.1 602.6	0.6452 100.0 100.0	20.1064 [18.6906]	107.6%			
6:2FTS	(427.0 / 407.0) 4341596 (427.0 / 81.0) 3069573	(7.55 , 1.00) (0.00 , N/A , -0.2)	566.4 769.4	0.7070 100.0 100.0	21.2101 [18.9808]	111.7%			
8:2FTS	(527.0 / 507.0) 3850466 (527.0 / 81.0) 2704473	(8.96 , 1.00) (0.00 , N/A , 0.1)	483.4 478.8	0.7024 100.0 100.0	18.7106 [19.1658]	97.6%			

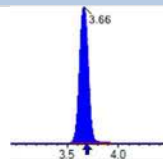
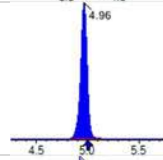
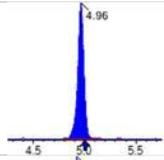
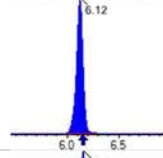
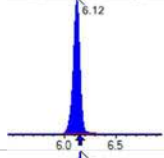
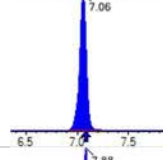
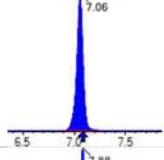
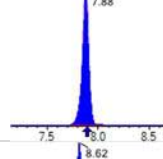
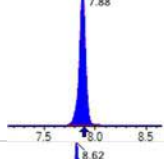
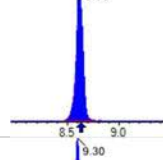
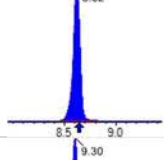
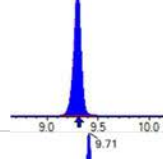
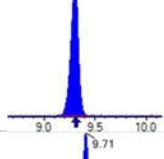
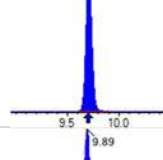
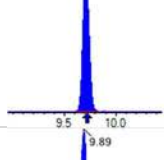
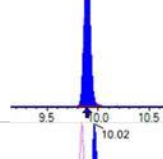
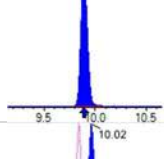
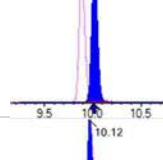
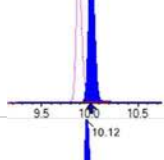
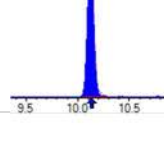
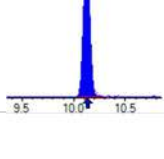
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 6533238 (498.0 / 478.0) 104132	(10.16 , 1.00) (0.00 , N/A , -0.3)	789.1 308.0	0.0159 100.0 100.0	5.7143 [5.0000]	114.3%			
NMeFOSA	(512.0 / 219.0) 4131434 (512.0 / 169.0) 2810177	(10.60 , 1.00) (0.00 , N/A , 0.1)	1414.3 1259.9	0.6802 100.0 100.0	20.8540 [20.0000]	104.3%			
NEIFOSA	(526.0 / 219.0) 3901575 (526.0 / 169.0) 3918277	(10.69 , 1.00) (0.00 , N/A , 0.1)	1348.4 973.4	1.0043 100.0 100.0	20.7923 [20.0000]	104.0%			
NMeFOSAA	(570.0 / 419.0) 974739 (570.0 / 483.0) 486449	(9.50 , 1.00) (0.01 , N/A , 0.3)	528.6 397.0	0.4991 100.0 100.0	4.4783 [5.0000]	89.6%			
NEIFOSAA	(584.0 / 419.0) 938439 (584.0 / 526.0) 563724	(9.68 , 1.00) (0.01 , N/A , 0.1)	779.6 538.4	0.6007 100.0 100.0	4.7374 [5.0000]	94.7%			
NMeFOSE	(616.0 / 59.0) 762846	(10.57 , 1.00) (0.01 , N/A , 0.0)	1114.3	N/A 0.0 0.0	18.3498 [20.0000]	91.7%			
NEtFOSE	(630.0 / 59.0) 107285	(10.67 , 1.00) (0.01 , N/A , 0.0)	699.3	N/A 0.0 0.0	18.7726 [20.0000]	93.9%			
HFPO-DA	(285.0 / 169.0) 1490387 (285.0 / 185.0) 4102385	(6.49 , 1.00) (0.00 , N/A , -0.1)	673.8 745.8	2.7526 100.0 100.0	9.8998 [10.0000]	99.0%			
ADONA	(377.0 / 85.0) 6528204 (377.0 / 251.0) 751093	(7.40 , 1.14) (N/A , 0.00 , 0.1)	637.3 562.0	0.1151 100.0 100.0	10.1265 [9.4270]	107.4%			
9Cl-Pf3ONS	(531.0 / 351.0) 16647748 (533.0 / 353.0) 5326080	(9.71 , 1.50) (N/A , 0.00 , 0.0)	840.3 781.6	0.3199 100.0 100.0	9.8391 [9.3325]	105.4%			
11Cl-Pf3OUDS	(631.0 / 451.0) 8483339 (633.0 / 453.0) 2483230	(10.00 , 1.54) (N/A , 0.00 , 0.0)	1405.7 1078.4	0.2927 100.0 100.0	9.5914 [9.4321]	101.7%			

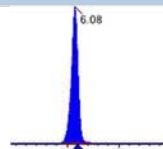
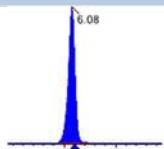
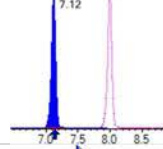
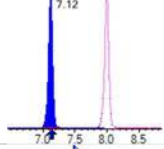
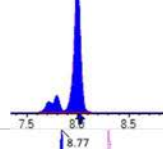
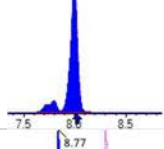
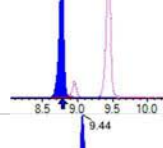
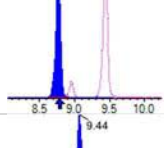
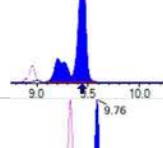
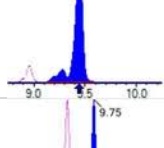
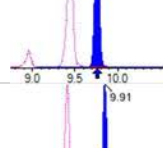
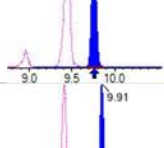
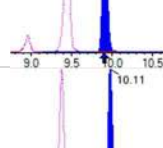
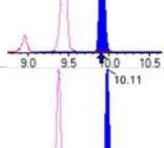
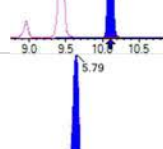
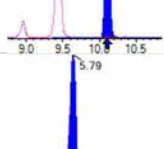
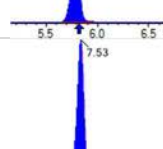
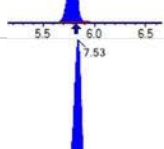
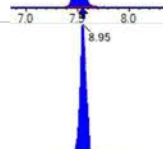
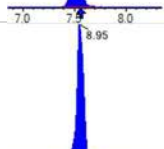

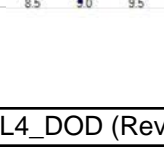
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 215936 (241.0 / 117.0) 294890	(4.49 , 0.90) (N/A , 0.00 , 0.1)	742.6 412.2	1.3656 100.0 100.0	19.0148 [20.0000]	95.1%			
5:3FTCA	(341.0 / 236.7) 1234482 (341.0 / 217.0) 2052138	(6.79 , 1.10) (N/A , 0.00 , 0.0)	472.2 627.3	1.6623 100.0 100.0	20.4231 [20.0000]	102.1%			
7:3FTCA	(441.0 / 317.0) 1566554 (441.0 / 337.0) 1309496	(8.60 , 1.40) (N/A , 0.00 , 0.0)	467.5 418.0	0.8359 100.0 100.0	21.0380 [20.0000]	105.2%			
PFEESA	(315.0 / 135.0) 3496086 (315.0 / 83.0) 1076676	(6.60 , 1.07) (N/A , 0.00 , -0.1)	720.5 853.0	0.3080 100.0 100.0	8.9073 [8.9246]	99.8%			
PFMPA	(229.0 / 85.0) 933005	(4.20 , 0.84) (N/A , 0.00 , 0.0)	905.3	N/A 0.0 0.0	9.4738 [10.0000]	94.7%			
PFMBA	(279.0 / 85.0) 2433416	(5.38 , 1.08) (N/A , 0.00 , 0.0)	660.4	N/A 0.0 0.0	9.4388 [10.0000]	94.4%			
NFDHA	(295.0 / 201.0) 1980280 (295.0 / 85.0) 1720011	(6.03 , 0.98) (N/A , 0.00 , 0.0)	540.3 542.4	0.8686 100.0 100.0	10.5096 [10.0000]	105.1%			
13C3_PFBA_IIS	(216.0 / 172.0) 290997	(3.70 , N/A) (N/A , 0.00 , N/A)	752.5	N/A	1.0765 [1.0000]	107.7% { 100.0% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 400712	(6.15 , N/A) (N/A , 0.00 , N/A)	507.0	N/A	1.0090 [1.0000]	100.9% { 100.0% }			
13C4_PFOA_IIS	(417.0 / 372.0) 397445	(7.89 , N/A) (N/A , 0.00 , N/A)	447.2	N/A	0.9949 [1.0000]	99.5% { 100.0% }			
13C5_PFNA_IIS	(468.0 / 423.0) 363601	(8.62 , N/A) (N/A , 0.00 , N/A)	400.3	N/A	1.1000 [1.0000]	110.0% { 100.0% }			

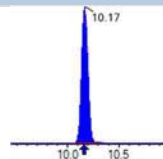
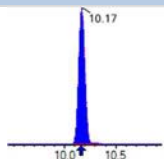
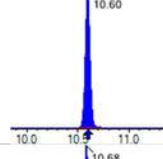
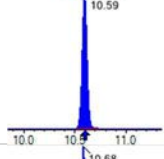
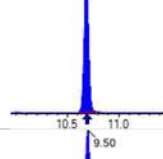
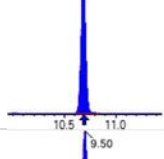
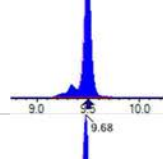
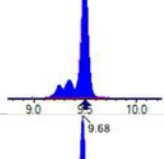
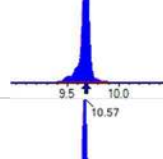
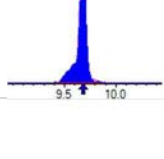
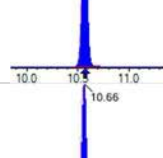
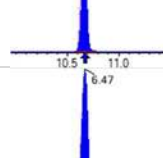
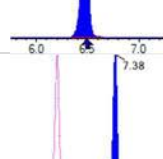
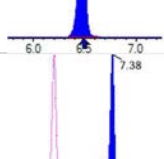
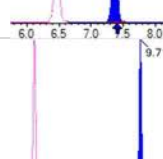
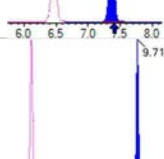
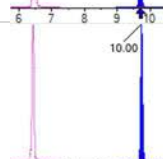
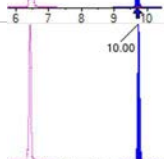

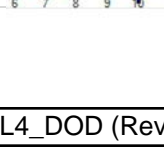
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 332089	(9.31 , N/A) (N/A , 0.00 , N/A)	255.6	N/A	0.9300 [1.0000]	93.0% { 100.0% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 744062	(8.01 , N/A) (N/A , 0.00 , N/A)	623.0	N/A	1.0668 [1.0000]	106.7% { 100.0% }			
13C4_PFOS_IIS	(503.0 / 79.9) 659187	(9.44 , N/A) (N/A , 0.00 , N/A)	426.2	N/A	0.9559 [1.0000]	95.6% { 100.0% }			
13C4_PFBA_EIS	(217.0 / 172.0) 2411325	(3.70 , N/A) (N/A , 0.00 , N/A)	666.5	N/A	7.7111 [8.0000]	96.4% { 100.0% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1519275	(5.00 , N/A) (N/A , 0.00 , N/A)	594.4	N/A	4.1488 [4.0000]	103.7% { 100.0% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 865131	(6.15 , N/A) (N/A , 0.00 , N/A)	450.8	N/A	1.9411 [2.0000]	97.1% { 100.0% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 831738	(7.08 , N/A) (N/A , 0.00 , N/A)	591.2	N/A	2.0886 [2.0000]	104.4% { 100.0% }			
13C8_PFOA_EIS	(421.0 / 376.0) 812498	(7.89 , N/A) (N/A , 0.00 , N/A)	539.0	N/A	1.8656 [2.0000]	93.3% { 100.0% }			
13C9_PFNA_EIS	(472.0 / 427.0) 383578	(8.63 , N/A) (N/A , 0.00 , N/A)	346.2	N/A	0.9583 [1.0000]	95.8% { 100.0% }			
13C6_PFDA_EIS	(519.0 / 474.0) 448644	(9.30 , N/A) (N/A , 0.00 , N/A)	353.9	N/A	1.0327 [1.0000]	103.3% { 100.0% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 606142	(9.71 , N/A) (N/A , 0.00 , N/A)	375.4	N/A	1.1513 [1.0000]	115.1% { 100.0% }			

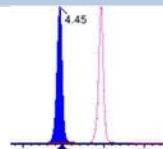
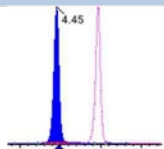
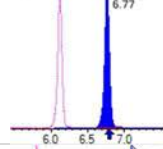
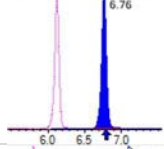
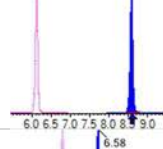
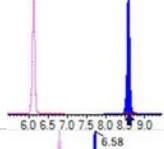
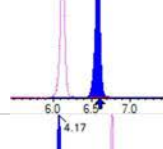
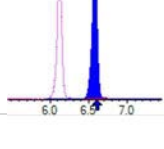
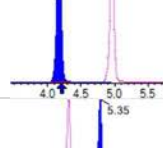
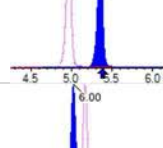
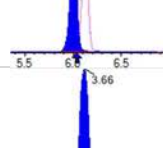
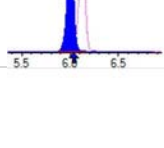
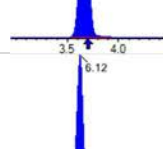
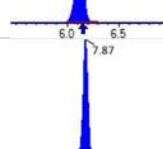
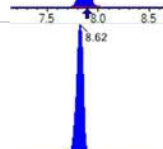

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 682569	(9.89 , N/A) (N/A , 0.00 , N/A)	448.5	N/A	1.1780 [1.0000]	117.8% { 100.0% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 440314	(10.12 , N/A) (N/A , 0.00 , N/A)	629.1	N/A	1.1512 [1.0000]	115.1% { 100.0% }			
13C3_PFBs_EIS	(302.0 / 80.0) 2517849	(6.10 , N/A) (N/A , 0.00 , N/A)	490.0	N/A	2.0096 [2.0000]	100.5% { 100.0% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1273501	(8.01 , N/A) (N/A , 0.00 , N/A)	620.0	N/A	1.9149 [2.0000]	95.7% { 100.0% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1632602	(9.45 , N/A) (N/A , 0.00 , N/A)	159.0	N/A	1.9124 [2.0000]	95.6% { 100.0% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 514459	(5.81 , N/A) (N/A , 0.00 , N/A)	430.5	N/A	3.4866 [4.0000]	87.2% { 100.0% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 598225	(7.55 , N/A) (N/A , 0.00 , N/A)	598.0	N/A	3.2625 [4.0000]	81.6% { 100.0% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 610985	(8.96 , N/A) (N/A , 0.00 , N/A)	349.8	N/A	3.3798 [4.0000]	84.5% { 100.0% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 2382534	(10.16 , N/A) (N/A , 0.00 , N/A)	757.8	N/A	2.0991 [2.0000]	105.0% { 100.0% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 455485	(10.60 , N/A) (N/A , 0.00 , N/A)	1109.6	N/A	2.0693 [2.0000]	103.5% { 100.0% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 408307	(10.69 , N/A) (N/A , 0.00 , N/A)	898.4	N/A	2.0818 [2.0000]	104.1% { 100.0% }			

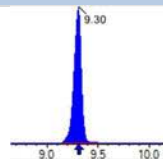
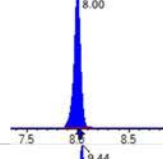
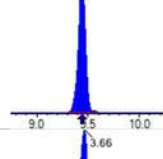
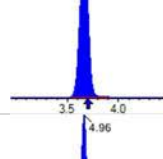
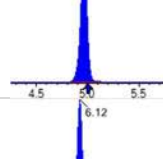
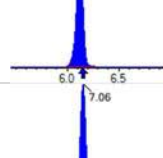
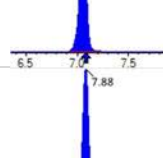
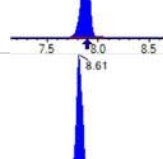
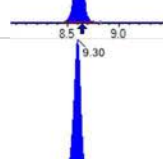
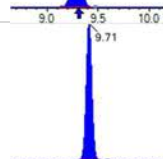

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 1048445	(9.49 , N/A) (N/A , 0.00 , N/A)	262.5	N/A	4.4893 [4.0000]	112.2% { 100.0% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 913693	(9.67 , N/A) (N/A , 0.00 , N/A)	484.1	N/A	4.5677 [4.0000]	114.2% { 100.0% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 736423	(10.56 , N/A) (N/A , 0.00 , N/A)	1374.1	N/A	20.8817 [20.0000]	104.4% { 100.0% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 301435	(10.66 , N/A) (N/A , 0.00 , N/A)	1705.1	N/A	21.1357 [20.0000]	105.7% { 100.0% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1962119	(6.49 , N/A) (N/A , 0.00 , N/A)	660.6	N/A	7.9277 [8.0000]	99.1% { 100.0% }			

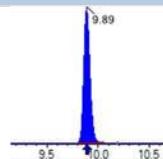
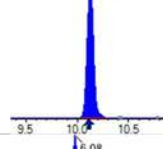
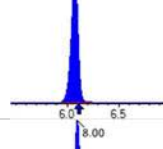
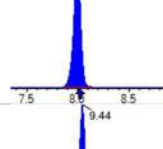
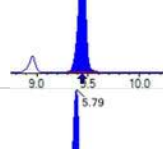
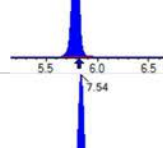
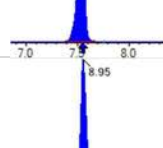
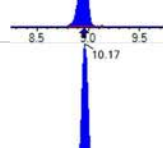
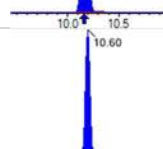
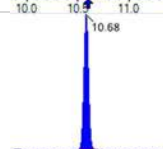
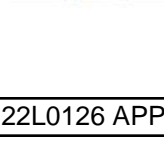
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 10416981	(3.66 , 1.00) (0.00 , N/A , 0.0)	527.7	N/A 0.0 0.0	42.1969 [40.0000]	105.5%			
PFPeA	(263.0 / 219.0) 6504005 (263.0 / 69.0) 66181	(4.96 , 1.00) (0.00 , N/A , 0.1)	561.1 464.3	0.0102 94.3 94.3	20.7935 [20.0000]	104.0%			
PFHxA	(313.0 / 269.0) 4097091 (313.0 / 119.0) 370488	(6.12 , 1.00) (0.00 , N/A , 0.1)	516.2 433.2	0.0904 100.5 100.5	9.6854 [10.0000]	96.9%			
PFHpA	(363.0 / 319.0) 3715890 (363.0 / 169.0) 1047848	(7.06 , 1.00) (0.00 , N/A , 0.1)	503.4 609.2	0.2820 92.6 92.6	10.0895 [10.0000]	100.9%			
PFOA	(413.0 / 369.0) 4294881 (413.0 / 169.0) 1421210	(7.88 , 1.00) (0.00 , N/A , 0.1)	659.9 612.0	0.3309 98.5 98.5	10.4028 [10.0000]	104.0%			
PFNA	(463.0 / 419.0) 3576853 (463.0 / 169.0) 684893	(8.62 , 1.00) (0.00 , N/A , -0.1)	674.0 468.7	0.1915 91.6 91.6	10.5898 [10.0000]	105.9%			
PFDA	(513.0 / 469.0) 3955133 (513.0 / 169.0) 408290	(9.30 , 1.00) (0.00 , N/A , -0.1)	511.9 499.8	0.1032 115.8 115.8	9.2328 [10.0000]	92.3%			
PFUnA	(563.0 / 519.0) 4675512 (563.0 / 169.0) 420680	(9.71 , 1.00) (0.00 , N/A , 0.0)	819.0 496.8	0.0900 85.4 85.4	9.8530 [10.0000]	98.5%			
PFDoA	(613.0 / 569.0) 5650202 (613.0 / 169.0) 693327	(9.89 , 1.00) (0.01 , N/A , 0.2)	897.9 537.3	0.1227 95.6 95.6	10.7946 [10.0000]	107.9%			
PFTTrDA	(663.0 / 619.0) 4617095 (663.0 / 169.0) 883518	(10.02 , 1.01) (N/A , 0.00 , 0.0)	588.0 782.2	0.1914 83.8 83.8	10.4357 [10.0000]	104.4%			
PFTeDA	(713.0 / 669.0) 4308939 (713.0 / 169.0) 846432	(10.12 , 1.00) (0.00 , N/A , -0.1)	975.2 620.3	0.1964 94.0 94.0	11.6913 [10.0000]	116.9%			

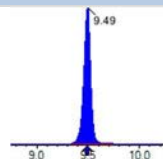
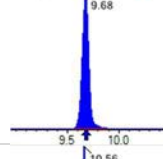
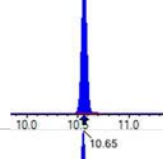
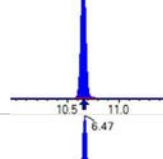
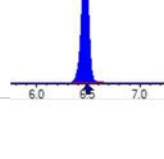
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 6166339 (299.0 / 99.0) 3921454	(6.08 , 1.00) (0.00 , N/A , 0.0)	547.7 510.2	0.6359 95.4 95.4	9.2898 [8.8473]	105.0%			
PFPeS	(349.0 / 80.0) 10242740 (349.0 / 99.0) 3757071	(7.12 , 0.89) (N/A , -0.02 , 0.0)	729.8 704.4	0.3668 99.6 99.6	9.8530 [9.3838]	105.0%			
PFHxS	(399.0 / 80.0) 9040946 (399.0 / 99.0) 2870785	(8.00 , 1.00) (0.00 , N/A , 0.1)	857.3 947.5	0.3175 99.3 99.3	9.5032 [9.1098]	104.3%			
PFHpS	(449.0 / 80.0) 8433758 (449.0 / 99.0) 2089689	(8.77 , 0.93) (N/A , -0.01 , 0.2)	580.6 547.5	0.2478 93.2 93.2	10.1542 [9.5141]	106.7%			
PFOS	(499.0 / 80.0) 10072767 (499.0 / 99.0) 2079051	(9.44 , 1.00) (0.00 , N/A , 0.0)	520.0 888.2	0.2064 90.4 90.4	9.9431 [9.2749]	107.2%			
PFNS	(549.0 / 80.0) 10894378 (549.0 / 99.0) 2866702	(9.76 , 1.03) (N/A , 0.00 , 0.2)	934.5 742.9	0.2631 112.0 112.0	10.7926 [9.5989]	112.4%			
PFDS	(599.0 / 80.0) 13020187 (599.0 / 99.0) 3213557	(9.91 , 1.05) (N/A , 0.00 , 0.0)	1250.5 1076.1	0.2468 110.1 110.1	10.5486 [9.6311]	109.5%			
PFDoS	(699.0 / 80.0) 5060751 (699.0 / 99.0) 1207704	(10.11 , 1.07) (N/A , 0.00 , 0.0)	1220.7 523.8	0.2386 116.6 116.6	10.2643 [9.6956]	105.9%			
4:2FTS	(327.0 / 307.0) 15033477 (327.0 / 81.0) 9425885	(5.79 , 1.00) (0.00 , N/A , -0.1)	521.2 588.9	0.6270 97.2 97.2	38.7780 [37.3811]	103.7%			
6:2FTS	(427.0 / 407.0) 9353875 (427.0 / 81.0) 6704957	(7.53 , 1.00) (-0.01 , N/A , -0.1)	617.7 582.3	0.7168 101.4 101.4	43.3715 [37.9617]	114.3%			
8:2FTS	(527.0 / 507.0) 9118630 (527.0 / 81.0) 6134745	(8.95 , 1.00) (0.00 , N/A , -0.2)	552.5 559.7	0.6728 95.8 95.8	38.2080 [38.3315]	99.7%			

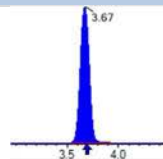
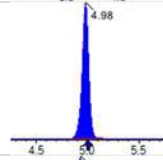
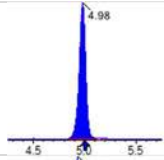
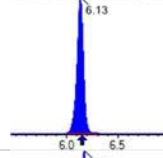
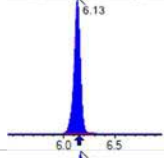
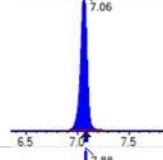
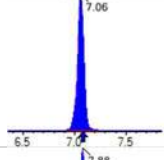
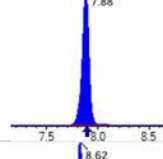
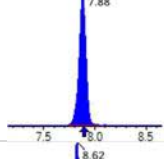
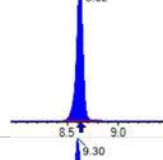
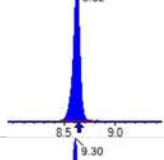
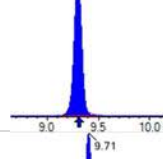
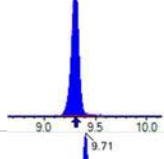
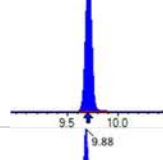
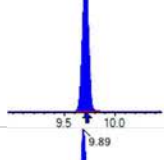
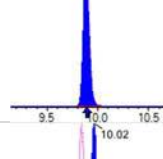
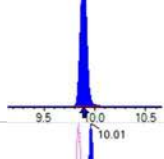
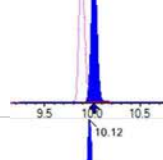
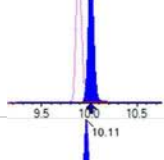
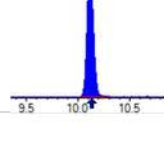
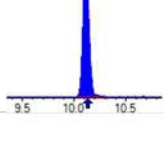
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 12283222 (498.0 / 478.0) 233455	(10.17 , 1.00) (0.00 , N/A , 0.0)	879.8 411.9	0.0190 119.2 119.2	10.9624 [10.0000]	109.6%			
NMeFOSA	(512.0 / 219.0) 8622299 (512.0 / 169.0) 5852261	(10.60 , 1.00) (0.00 , N/A , 0.0)	1409.3 1015.9	0.6787 99.8 99.8	43.1093 [40.0000]	107.8%			
NEIFOSA	(526.0 / 219.0) 8255679 (526.0 / 169.0) 8402934	(10.68 , 1.00) (0.00 , N/A , 0.0)	1398.2 1126.9	1.0178 101.3 101.3	45.2817 [40.0000]	113.2%			
NMeFOSAA	(570.0 / 419.0) 1987268 (570.0 / 483.0) 1055069	(9.50 , 1.00) (0.00 , N/A , 0.0)	555.0 472.8	0.5309 106.4 106.4	10.7064 [10.0000]	107.1%			
NEIFOSAA	(584.0 / 419.0) 1897275 (584.0 / 526.0) 1092200	(9.68 , 1.00) (0.00 , N/A , 0.1)	803.0 669.1	0.5757 95.8 95.8	11.3768 [10.0000]	113.8%			
NMeFOSE	(616.0 / 59.0) 1803698	(10.57 , 1.00) (0.01 , N/A , 0.0)	1368.9	N/A 0.0 0.0	39.5998 [40.0000]	99.0%			
NEiFOSE	(630.0 / 59.0) 240671	(10.66 , 1.00) (0.01 , N/A , 0.0)	1037.3	N/A 0.0 0.0	39.4669 [40.0000]	98.7%			
HFPO-DA	(285.0 / 169.0) 3263745 (285.0 / 185.0) 8454749	(6.47 , 1.00) (0.00 , N/A , 0.0)	705.0 708.2	2.5905 94.1 94.1	21.0697 [20.0000]	105.3%			
ADONA	(377.0 / 85.0) 13805850 (377.0 / 251.0) 1616925	(7.38 , 1.14) (N/A , -0.02 , -0.2)	733.4 516.7	0.1171 101.8 101.8	20.8134 [18.8540]	110.4%			
9CI-Pf3ONS	(531.0 / 351.0) 29409195 (533.0 / 353.0) 10290303	(9.71 , 1.50) (N/A , 0.00 , 0.0)	677.8 755.3	0.3499 109.4 109.4	16.8928 [18.6651]	90.5%			
11CI-PF3OUDS	(631.0 / 451.0) 17353905 (633.0 / 453.0) 5372258	(10.00 , 1.55) (N/A , 0.00 , -0.1)	944.2 817.5	0.3096 105.8 105.8	19.0689 [18.8642]	101.1%			

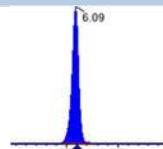
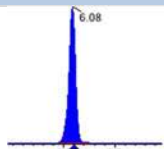
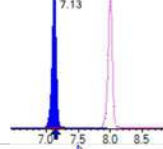
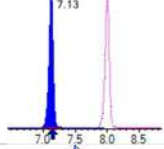
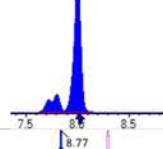
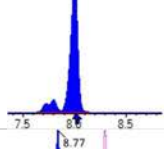
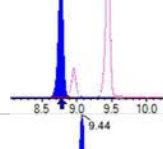
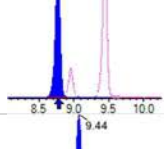
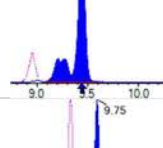
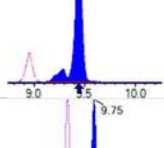
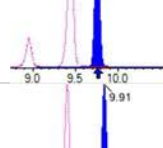
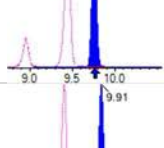
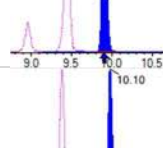
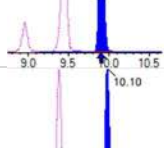
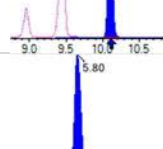
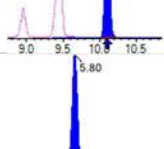
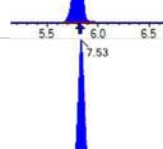
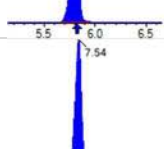
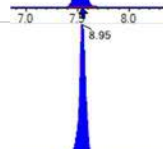
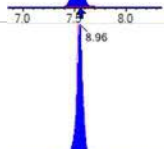

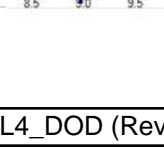
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 428182 (241.0 / 117.0) 584288	(4.45 , 0.90) (N/A , -0.03 , 0.1)	629.7 549.1	1.3646 99.9 99.9	39.1184 [40.0000]	97.8%			
5:3FTCA	(341.0 / 236.7) 2674090 (341.0 / 217.0) 4107874	(6.77 , 1.11) (N/A , -0.02 , 0.0)	544.5 526.8	1.5362 92.4 92.4	41.2138 [40.0000]	103.0%			
7:3FTCA	(441.0 / 317.0) 3137012 (441.0 / 337.0) 2753616	(8.58 , 1.40) (N/A , -0.01 , 0.1)	426.1 456.3	0.8778 105.0 105.0	39.2470 [40.0000]	98.1%			
PFEESA	(315.0 / 135.0) 7473606 (315.0 / 83.0) 2174254	(6.58 , 1.07) (N/A , -0.02 , 0.1)	651.0 617.6	0.2909 94.5 94.5	17.7387 [17.8492]	99.4%			
PFMPA	(229.0 / 85.0) 1939649	(4.17 , 0.84) (N/A , -0.03 , 0.0)	869.5	N/A 0.0 0.0	20.4338 [20.0000]	102.2%			
PFMBA	(279.0 / 85.0) 5545780	(5.35 , 1.08) (N/A , -0.03 , 0.0)	757.5	N/A 0.0 0.0	22.3177 [20.0000]	111.6%			
NFDHA	(295.0 / 201.0) 3929369 (295.0 / 85.0) 3672831	(6.00 , 0.98) (N/A , -0.03 , -0.1)	659.7 590.6	0.9347 107.6 107.6	19.4274 [20.0000]	97.1%			
13C3_PFBA_IIS	(216.0 / 172.0) 285418	(3.66 , N/A) (N/A , -0.03 , N/A)	571.1	N/A	1.0559 [1.0000]	105.6% { 98.1% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 420125	(6.12 , N/A) (N/A , -0.02 , N/A)	504.3	N/A	1.0579 [1.0000]	105.8% { 104.8% }			
13C4_PFOA_IIS	(417.0 / 372.0) 432948	(7.87 , N/A) (N/A , -0.02 , N/A)	720.5	N/A	1.0838 [1.0000]	108.4% { 108.9% }			
13C5_PFNA_IIS	(468.0 / 423.0) 357609	(8.62 , N/A) (N/A , 0.00 , N/A)	419.2	N/A	1.0818 [1.0000]	108.2% { 98.4% }			

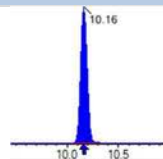
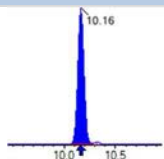
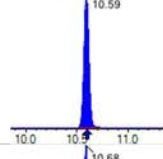
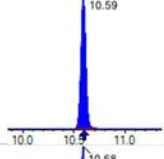
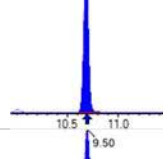
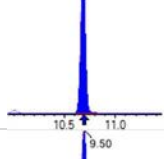
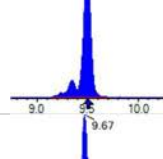
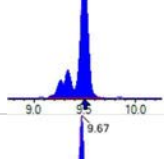
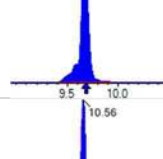
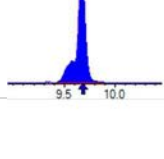
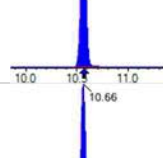
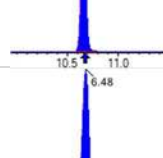
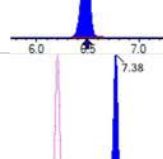
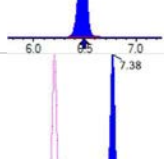
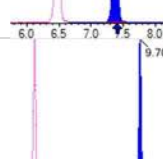
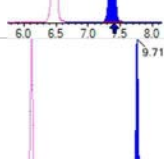
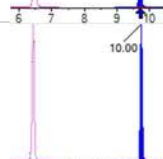
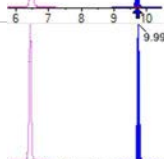

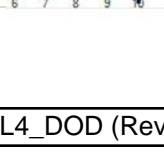
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 363202	(9.30 , N/A) (N/A , 0.00 , N/A)	373.2	N/A	1.0172 [1.0000]	101.7% { 109.4% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 734721	(8.00 , N/A) (N/A , -0.02 , N/A)	709.4	N/A	1.0534 [1.0000]	105.3% { 98.7% }			
13C4_PFOS_IIS	(503.0 / 79.9) 694254	(9.44 , N/A) (N/A , 0.00 , N/A)	478.8	N/A	1.0068 [1.0000]	100.7% { 105.3% }			
13C4_PFBA_EIS	(217.0 / 172.0) 2355085	(3.66 , N/A) (N/A , -0.03 , N/A)	583.2	N/A	7.6784 [8.0000]	96.0% { 97.7% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1464370	(4.96 , N/A) (N/A , -0.03 , N/A)	662.7	N/A	3.8141 [4.0000]	95.4% { 96.4% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 928649	(6.12 , N/A) (N/A , -0.02 , N/A)	617.5	N/A	1.9873 [2.0000]	99.4% { 107.3% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 769100	(7.06 , N/A) (N/A , -0.02 , N/A)	536.3	N/A	1.8420 [2.0000]	92.1% { 92.5% }			
13C8_PFOA_EIS	(421.0 / 376.0) 888860	(7.88 , N/A) (N/A , -0.01 , N/A)	566.7	N/A	1.8735 [2.0000]	93.7% { 109.4% }			
13C9_PFNA_EIS	(472.0 / 427.0) 372979	(8.61 , N/A) (N/A , -0.02 , N/A)	479.8	N/A	0.9475 [1.0000]	94.7% { 97.2% }			
13C6_PFDA_EIS	(519.0 / 474.0) 480991	(9.30 , N/A) (N/A , -0.01 , N/A)	378.3	N/A	1.0123 [1.0000]	101.2% { 107.2% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 599240	(9.71 , N/A) (N/A , 0.00 , N/A)	412.9	N/A	1.0407 [1.0000]	104.1% { 98.9% }			

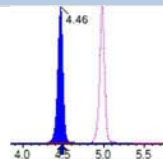
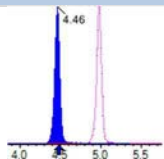
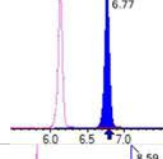
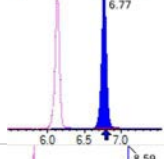
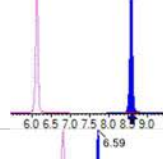
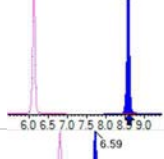
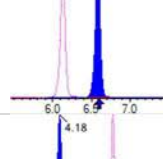
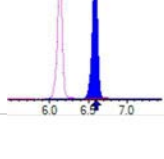
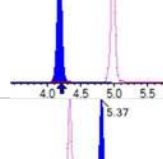
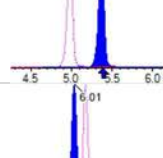
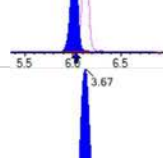
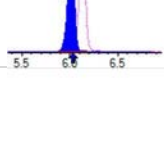
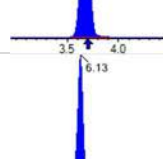
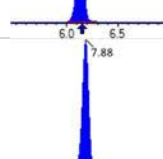
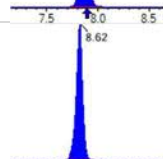

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 610747	(9.89 , N/A) (N/A , 0.00 , N/A)	433.9	N/A	0.9637 [1.0000]	96.4% { 89.5% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 405783	(10.13 , N/A) (N/A , 0.00 , N/A)	825.4	N/A	0.9701 [1.0000]	97.0% { 92.2% }			
13C3_PFBs_EIS	(302.0 / 80.0) 2379985	(6.08 , N/A) (N/A , -0.03 , N/A)	525.5	N/A	1.9237 [2.0000]	96.2% { 94.5% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1237874	(8.00 , N/A) (N/A , -0.02 , N/A)	710.7	N/A	1.8850 [2.0000]	94.2% { 97.2% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1746178	(9.44 , N/A) (N/A , 0.00 , N/A)	140.3	N/A	1.9421 [2.0000]	97.1% { 107.0% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 543555	(5.79 , N/A) (N/A , -0.02 , N/A)	513.0	N/A	3.7307 [4.0000]	93.3% { 105.7% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 630296	(7.54 , N/A) (N/A , -0.01 , N/A)	619.6	N/A	3.4811 [4.0000]	87.0% { 105.4% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 708566	(8.95 , N/A) (N/A , -0.01 , N/A)	643.4	N/A	3.9694 [4.0000]	99.2% { 116.0% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 2334950	(10.17 , N/A) (N/A , 0.00 , N/A)	725.9	N/A	1.9532 [2.0000]	97.7% { 98.0% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 459849	(10.60 , N/A) (N/A , 0.00 , N/A)	953.1	N/A	1.9836 [2.0000]	99.2% { 101.0% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 396716	(10.68 , N/A) (N/A , 0.00 , N/A)	697.6	N/A	1.9206 [2.0000]	96.0% { 97.2% }			

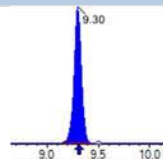
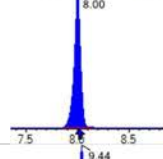
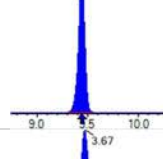
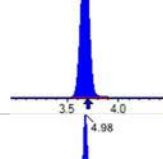
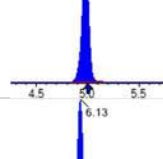
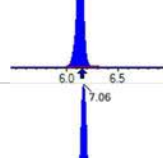
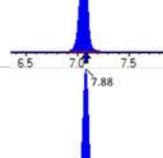
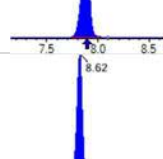
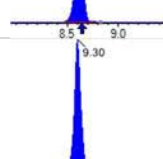
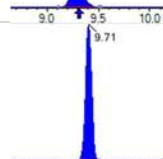

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 894097	(9.49 , N/A) (N/A , 0.00 , N/A)	374.4	N/A	3.6350 [4.0000]	90.9% { 85.3% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 769205	(9.68 , N/A) (N/A , 0.00 , N/A)	310.9	N/A	3.6512 [4.0000]	91.3% { 84.2% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 806849	(10.56 , N/A) (N/A , 0.00 , N/A)	1039.6	N/A	21.7231 [20.0000]	108.6% { 109.6% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 321638	(10.65 , N/A) (N/A , 0.00 , N/A)	1586.2	N/A	21.4132 [20.0000]	107.1% { 106.7% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 2018877	(6.47 , N/A) (N/A , -0.02 , N/A)	639.3	N/A	7.7801 [8.0000]	97.3% { 102.9% }			

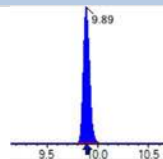
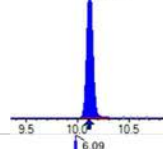
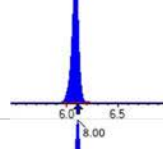
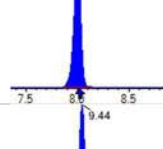
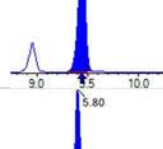
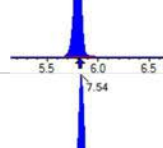
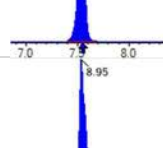
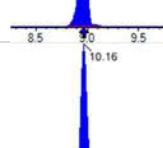
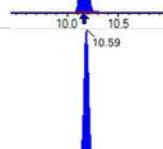
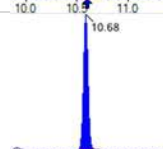
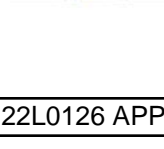
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 17822442	(3.67 , 1.00) (0.00 , N/A , 0.0)	570.6	N/A 0.0 0.0	82.6154 [80.0000]	103.3%			
PFPeA	(263.0 / 219.0) 11378042 (263.0 / 69.0) 122240	(4.98 , 1.00) (0.00 , N/A , 0.0)	529.0 475.6	0.0107 99.5 99.5	39.6286 [40.0000]	99.1%			
PFHxA	(313.0 / 269.0) 7345314 (313.0 / 119.0) 696377	(6.13 , 1.00) (0.00 , N/A , 0.0)	525.0 601.3	0.0948 105.3 105.3	20.6795 [20.0000]	103.4%			
PFHpA	(363.0 / 319.0) 7000325 (363.0 / 169.0) 2013165	(7.06 , 1.00) (0.00 , N/A , 0.1)	557.3 654.3	0.2876 94.5 94.5	19.3732 [20.0000]	96.9%			
PFOA	(413.0 / 369.0) 7619813 (413.0 / 169.0) 2531803	(7.88 , 1.00) (0.00 , N/A , 0.1)	627.5 640.5	0.3323 98.9 98.9	19.7159 [20.0000]	98.6%			
PFNA	(463.0 / 419.0) 6411707 (463.0 / 169.0) 1313032	(8.62 , 1.00) (0.00 , N/A , 0.0)	567.7 420.4	0.2048 97.9 97.9	20.7851 [20.0000]	103.9%			
PFDA	(513.0 / 469.0) 8631259 (513.0 / 169.0) 817187	(9.30 , 1.00) (0.00 , N/A , -0.2)	565.2 343.9	0.0947 106.2 106.2	21.7840 [20.0000]	108.9%			
PFUnA	(563.0 / 519.0) 7999515 (563.0 / 169.0) 776268	(9.71 , 1.00) (0.00 , N/A , 0.1)	627.1 676.6	0.0970 92.1 92.1	20.0466 [20.0000]	100.2%			
PFDoA	(613.0 / 569.0) 9603331 (613.0 / 169.0) 1080274	(9.88 , 1.00) (0.00 , N/A , -0.3)	979.4 828.7	0.1125 87.6 87.6	18.7015 [20.0000]	93.5%			
PFTTrDA	(663.0 / 619.0) 8859783 (663.0 / 169.0) 1882278	(10.02 , 1.01) (N/A , 0.00 , 0.1)	721.1 946.6	0.2125 93.1 93.1	20.4122 [20.0000]	102.1%			
PFTeDA	(713.0 / 669.0) 8273144 (713.0 / 169.0) 1419916	(10.12 , 1.00) (0.00 , N/A , 0.2)	956.6 684.9	0.1716 82.2 82.2	21.4065 [20.0000]	107.0%			

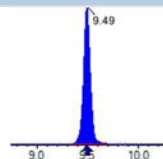

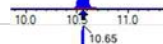


Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 11277121 (299.0 / 99.0) 6959572	(6.09 , 1.00) (0.00 , N/A , 0.1)	510.1 486.0	0.6171 92.6 92.6	19.4660 [17.6947]	110.0%			
PFPeS	(349.0 / 80.0) 18747113 (349.0 / 99.0) 6982813	(7.13 , 0.89) (N/A , -0.02 , 0.0)	604.4 560.2	0.3725 101.2 101.2	19.4395 [18.7676]	103.6%			
PFHxS	(399.0 / 80.0) 16498532 (399.0 / 99.0) 5676869	(8.00 , 1.00) (0.00 , N/A , 0.1)	750.9 927.3	0.3441 107.6 107.6	18.6939 [18.2197]	102.6%			
PFHpS	(449.0 / 80.0) 15700233 (449.0 / 99.0) 4113272	(8.77 , 0.93) (N/A , -0.01 , 0.1)	634.0 604.0	0.2620 98.5 98.5	18.2799 [19.0281]	96.1%			
PFOS	(499.0 / 80.0) 17069249 (499.0 / 99.0) 3990338	(9.44 , 1.00) (0.00 , N/A , 0.1)	393.2 947.5	0.2338 102.4 102.4	16.2941 [18.5499]	87.8%			
PFNS	(549.0 / 80.0) 17904932 (549.0 / 99.0) 4858107	(9.75 , 1.03) (N/A , 0.00 , 0.0)	914.3 772.5	0.2713 115.5 115.5	17.1530 [19.1977]	89.3%			
PFDS	(599.0 / 80.0) 22289315 (599.0 / 99.0) 5260310	(9.91 , 1.05) (N/A , 0.00 , 0.0)	993.3 869.8	0.2360 105.3 105.3	17.4630 [19.2621]	90.7%			
PFDoS	(699.0 / 80.0) 9843470 (699.0 / 99.0) 2041952	(10.10 , 1.07) (N/A , -0.01 , -0.1)	899.8 939.6	0.2074 101.3 101.3	19.3067 [19.3913]	99.6%			
4:2FTS	(327.0 / 307.0) 25295344 (327.0 / 81.0) 15311685	(5.80 , 1.00) (0.00 , N/A , -0.1)	611.6 535.6	0.6053 93.8 93.8	74.2078 [74.7622]	99.3%			
6:2FTS	(427.0 / 407.0) 16506583 (427.0 / 81.0) 12210918	(7.53 , 1.00) (0.00 , N/A , -0.2)	661.0 797.3	0.7398 104.6 104.6	78.6007 [75.9234]	103.5%			
8:2FTS	(527.0 / 507.0) 14476123 (527.0 / 81.0) 10354278	(8.95 , 1.00) (0.01 , N/A , -0.1)	541.0 595.7	0.7153 101.8 101.8	66.0815 [76.6631]	86.2%			

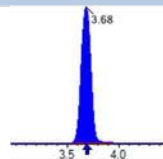
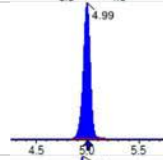
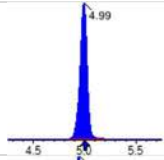
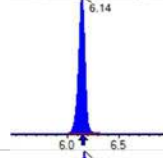
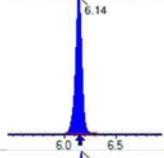
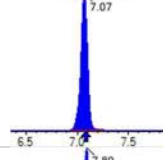
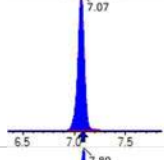
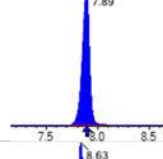
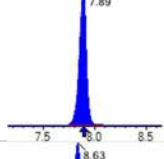
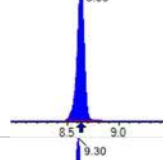
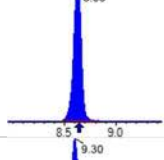
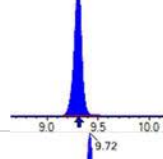
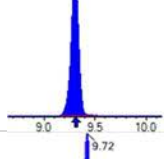
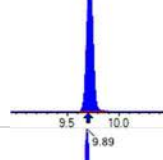
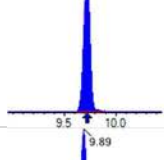
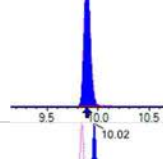
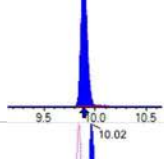
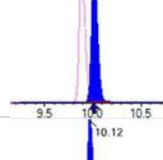
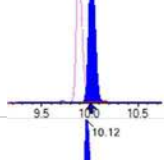
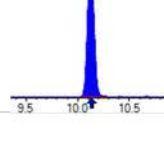
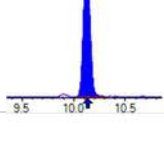
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 19164277 (498.0 / 478.0) 428338	(10.16 , 1.00) (0.00 , N/A , 0.0)	768.4 542.3	0.0224 140.2 140.2	18.8200 [20.0000]	94.1%			
NMeFOSA	(512.0 / 219.0) 15465408 (512.0 / 169.0) 11131036	(10.59 , 1.00) (0.00 , N/A , 0.0)	1280.3 1258.5	0.7197 105.8 105.8	72.9039 [80.0000]	91.1%			
NEIFOSA	(526.0 / 219.0) 14764837 (526.0 / 169.0) 15828042	(10.68 , 1.00) (0.00 , N/A , 0.0)	1421.4 1508.3	1.0720 106.7 106.7	82.0567 [80.0000]	102.6%			
NMeFOSAA	(570.0 / 419.0) 3793223 (570.0 / 483.0) 1873914	(9.50 , 1.00) (0.00 , N/A , 0.0)	669.9 404.3	0.4940 99.0 99.0	19.3060 [20.0000]	96.5%			
NEIFOSAA	(584.0 / 419.0) 2901144 (584.0 / 526.0) 1868736	(9.67 , 1.00) (0.00 , N/A , -0.1)	985.5 758.1	0.6441 107.2 107.2	17.2038 [20.0000]	86.0%			
NMeFOSE	(616.0 / 59.0) 3257786	(10.56 , 1.00) (0.01 , N/A , 0.0)	1314.5	N/A 0.0 0.0	78.0399 [80.0000]	97.5%			
NEIFOSE	(630.0 / 59.0) 385753	(10.66 , 1.00) (0.01 , N/A , 0.0)	1298.2	N/A 0.0 0.0	70.2852 [80.0000]	87.9%			
HFPO-DA	(285.0 / 169.0) 5612986 (285.0 / 185.0) 14924418	(6.48 , 1.00) (0.00 , N/A , 0.0)	647.9 706.3	2.6589 96.6 96.6	40.5437 [40.0000]	101.4%			
ADONA	(377.0 / 85.0) 22841831 (377.0 / 251.0) 2798379	(7.38 , 1.14) (N/A , -0.01 , 0.1)	628.0 687.6	0.1225 106.5 106.5	38.5298 [37.7080]	102.2%			
9CI-PF3ONS	(531.0 / 351.0) 49852920 (533.0 / 353.0) 17661471	(9.70 , 1.50) (N/A , 0.00 , -0.1)	898.6 968.8	0.3543 110.7 110.7	32.0402 [37.3302]	85.8%			
11CI-PF3OUDS	(631.0 / 451.0) 31723928 (633.0 / 453.0) 10362873	(10.00 , 1.54) (N/A , 0.00 , 0.0)	1190.7 788.0	0.3267 111.6 111.6	39.0034 [37.7283]	103.4%			

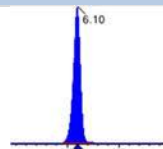
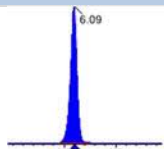
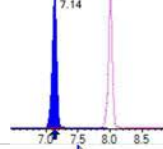
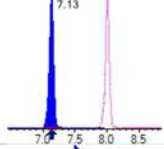
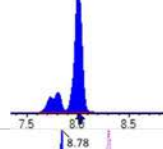
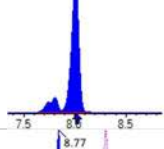
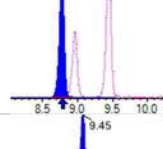
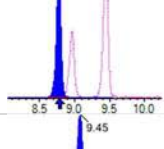
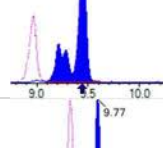
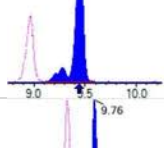
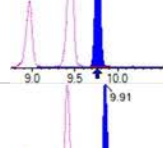
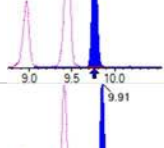
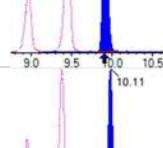
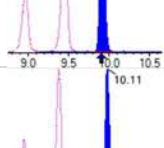
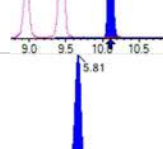
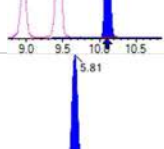
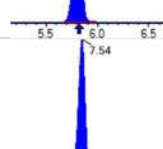
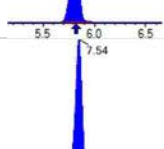
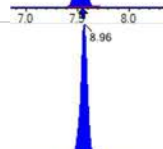
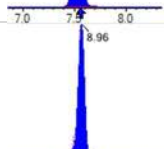

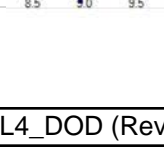
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 791196 (241.0 / 117.0) 1106548	(4.46 , 0.90) (N/A , -0.02 , 0.1)	579.9 612.4	1.3986 102.4 102.4	78.7465 [80.0000]	98.4%			
5:3FTCA	(341.0 / 236.7) 4911755 (341.0 / 217.0) 7859521	(6.77 , 1.10) (N/A , -0.02 , 0.0)	625.0 524.3	1.6001 96.3 96.3	90.1556 [80.0000]	112.7%			
7:3FTCA	(441.0 / 317.0) 6316811 (441.0 / 337.0) 5322218	(8.59 , 1.40) (N/A , -0.01 , 0.0)	463.8 470.2	0.8425 100.8 100.8	94.1189 [80.0000]	117.6%			
PFEESA	(315.0 / 135.0) 13209074 (315.0 / 83.0) 3850208	(6.59 , 1.07) (N/A , -0.02 , -0.1)	652.9 627.8	0.2915 94.6 94.6	37.3383 [35.6984]	104.6%			
PFMPA	(229.0 / 85.0) 3389506	(4.18 , 0.84) (N/A , -0.02 , 0.0)	963.0	N/A 0.0 0.0	38.9007 [40.0000]	97.3%			
PFMBA	(279.0 / 85.0) 9135232	(5.37 , 1.08) (N/A , -0.01 , 0.0)	668.1	N/A 0.0 0.0	40.0498 [40.0000]	100.1%			
NFDHA	(295.0 / 201.0) 7023682 (295.0 / 85.0) 6542262	(6.01 , 0.98) (N/A , -0.02 , 0.0)	648.4 630.7	0.9315 107.2 107.2	41.3567 [40.0000]	103.4%			
13C3_PFBA_IIS	(216.0 / 172.0) 248472	(3.67 , N/A) (N/A , -0.02 , N/A)	560.8	N/A	0.9192 [1.0000]	91.9% { 85.4% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 429479	(6.13 , N/A) (N/A , -0.01 , N/A)	524.0	N/A	1.0815 [1.0000]	108.1% { 107.2% }			
13C4_PFOA_IIS	(417.0 / 372.0) 382953	(7.88 , N/A) (N/A , -0.01 , N/A)	509.2	N/A	0.9586 [1.0000]	95.9% { 96.4% }			
13C5_PFNA_IIS	(468.0 / 423.0) 321598	(8.62 , N/A) (N/A , 0.00 , N/A)	506.5	N/A	0.9729 [1.0000]	97.3% { 88.4% }			

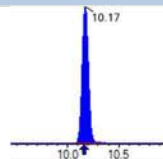
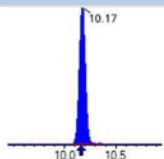
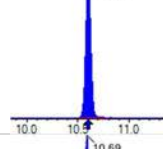
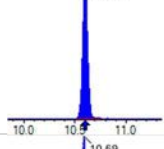
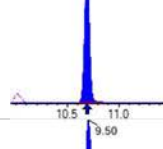
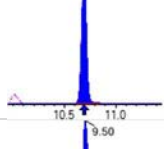
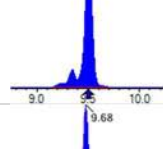
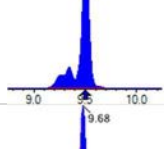
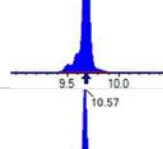
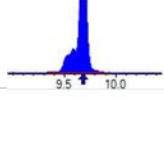
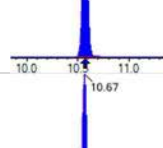
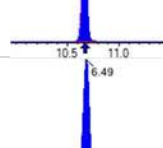
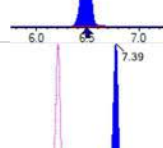
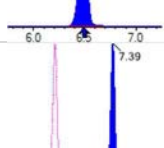
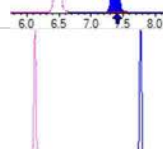
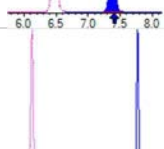
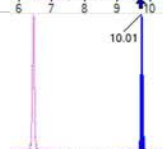
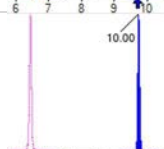
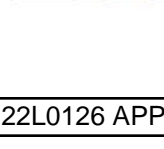
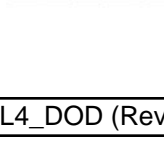
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 361543	(9.30 , N/A) (N/A , -0.01 , N/A)	359.6	N/A	1.0125 [1.0000]	101.3% { 108.9% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 689856	(8.00 , N/A) (N/A , -0.01 , N/A)	593.4	N/A	0.9891 [1.0000]	98.9% { 92.7% }			
13C4_PFOS_IIS	(503.0 / 79.9) 751313	(9.44 , N/A) (N/A , 0.00 , N/A)	591.9	N/A	1.0896 [1.0000]	109.0% { 114.0% }			
13C4_PFBA_EIS	(217.0 / 172.0) 2058029	(3.67 , N/A) (N/A , -0.02 , N/A)	591.5	N/A	7.7076 [8.0000]	96.3% { 85.3% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1344175	(4.98 , N/A) (N/A , -0.02 , N/A)	561.5	N/A	3.4248 [4.0000]	85.6% { 88.5% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 779762	(6.13 , N/A) (N/A , -0.01 , N/A)	449.7	N/A	1.6323 [2.0000]	81.6% { 90.1% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 754584	(7.06 , N/A) (N/A , -0.02 , N/A)	450.2	N/A	1.7679 [2.0000]	88.4% { 90.7% }			
13C8_PFOA_EIS	(421.0 / 376.0) 832073	(7.88 , N/A) (N/A , -0.01 , N/A)	531.7	N/A	1.9828 [2.0000]	99.1% { 102.4% }			
13C9_PFNA_EIS	(472.0 / 427.0) 340639	(8.62 , N/A) (N/A , -0.01 , N/A)	425.8	N/A	0.9622 [1.0000]	96.2% { 88.8% }			
13C6_PFDA_EIS	(519.0 / 474.0) 444885	(9.30 , N/A) (N/A , -0.01 , N/A)	290.4	N/A	0.9406 [1.0000]	94.1% { 99.2% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 503923	(9.71 , N/A) (N/A , 0.00 , N/A)	481.8	N/A	0.8792 [1.0000]	87.9% { 83.1% }			

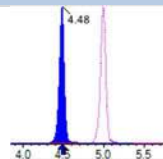
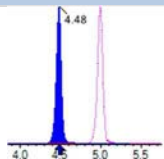
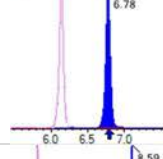
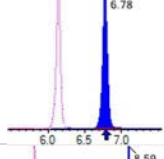
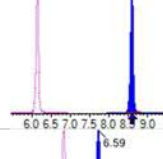
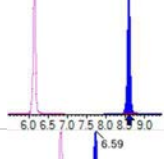
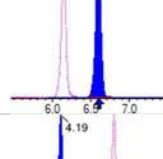
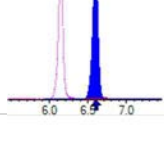
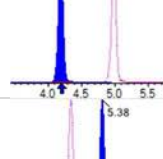
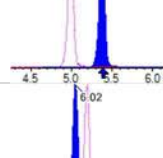
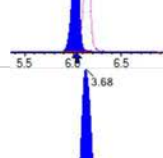
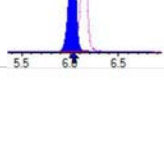
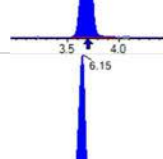
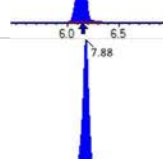
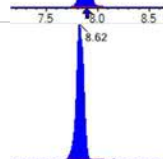

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 599166	(9.89 , N/A) (N/A , 0.00 , N/A)	775.9	N/A	0.9498 [1.0000]	95.0% { 87.8% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 425512	(10.12 , N/A) (N/A , -0.01 , N/A)	553.0	N/A	1.0219 [1.0000]	102.2% { 96.6% }			
13C3_PFBs_EIS	(302.0 / 80.0) 2077191	(6.09 , N/A) (N/A , -0.02 , N/A)	528.8	N/A	1.7881 [2.0000]	89.4% { 82.5% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1148365	(8.00 , N/A) (N/A , -0.01 , N/A)	826.5	N/A	1.8624 [2.0000]	93.1% { 90.2% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1805693	(9.44 , N/A) (N/A , 0.00 , N/A)	110.3	N/A	1.8558 [2.0000]	92.8% { 110.6% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 477926	(5.80 , N/A) (N/A , -0.02 , N/A)	623.1	N/A	3.4935 [4.0000]	87.3% { 92.9% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 613745	(7.54 , N/A) (N/A , -0.01 , N/A)	728.1	N/A	3.6101 [4.0000]	90.3% { 102.6% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 650395	(8.95 , N/A) (N/A , -0.01 , N/A)	438.1	N/A	3.8805 [4.0000]	97.0% { 106.5% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 2121989	(10.16 , N/A) (N/A , 0.00 , N/A)	636.6	N/A	1.6403 [2.0000]	82.0% { 89.1% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 487723	(10.59 , N/A) (N/A , -0.01 , N/A)	855.6	N/A	1.9440 [2.0000]	97.2% { 107.1% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 391529	(10.68 , N/A) (N/A , -0.01 , N/A)	684.7	N/A	1.7515 [2.0000]	87.6% { 95.9% }			

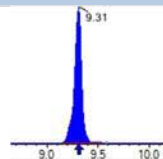
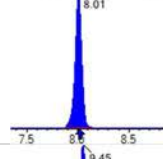
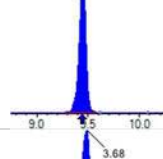
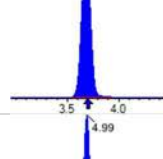
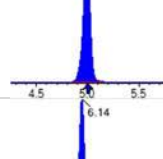
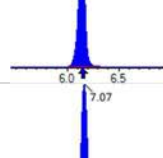
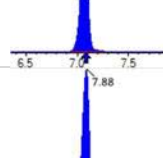
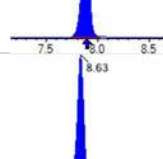
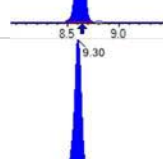
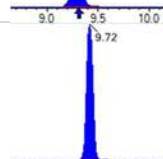

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (Δ RT-I[min], Δ RT-CV[min], Δ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 946424	(9.49 , N/A) (N/A , 0.00 , N/A)	446.6	N/A	3.5556 [4.0000]	88.9% { 90.3% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 777815	(9.67 , N/A) (N/A , 0.00 , N/A)	378.7	N/A	3.4117 [4.0000]	85.3% { 85.1% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 739481	(10.56 , N/A) (N/A , -0.01 , N/A)	1116.7	N/A	18.3973 [20.0000]	92.0% { 100.4% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 289482	(10.65 , N/A) (N/A , -0.01 , N/A)	1189.8	N/A	17.8087 [20.0000]	89.0% { 96.0% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1804359	(6.48 , N/A) (N/A , -0.02 , N/A)	645.2	N/A	6.8019 [8.0000]	85.0% { 92.0% }			

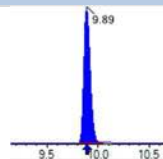
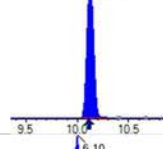
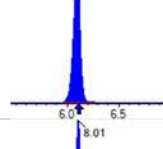
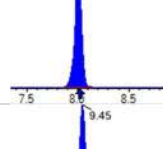
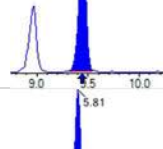
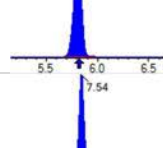
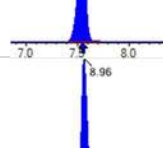
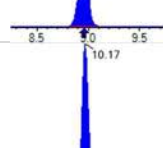
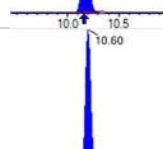
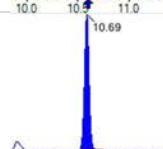
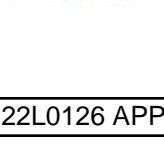
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 36997561	(3.68 , 1.00) (0.00 , N/A , 0.0)	598.5	N/A 0.0 0.0	192.2567 [200.0000]	96.1%			
PFPeA	(263.0 / 219.0) 24876294 (263.0 / 69.0) 262691	(4.99 , 1.00) (0.00 , N/A , 0.1)	524.7 400.1	0.0106 97.8 97.8	96.7401 [100.0000]	96.7%			
PFHxA	(313.0 / 269.0) 16852095 (313.0 / 119.0) 1592448	(6.14 , 1.00) (0.00 , N/A , 0.1)	521.0 447.2	0.0945 105.0 105.0	47.6559 [50.0000]	95.3%			
PFHpA	(363.0 / 319.0) 16075685 (363.0 / 169.0) 462893	(7.07 , 1.00) (0.00 , N/A , 0.1)	521.5 483.5	0.2876 94.5 94.5	46.5964 [50.0000]	93.2%			
PFOA	(413.0 / 369.0) 16716744 (413.0 / 169.0) 5432951	(7.89 , 1.00) (0.00 , N/A , 0.1)	594.5 645.9	0.3250 96.7 96.7	46.3310 [50.0000]	92.7%			
PFNA	(463.0 / 419.0) 13475734 (463.0 / 169.0) 2658224	(8.63 , 1.00) (0.00 , N/A , 0.2)	596.5 519.0	0.1973 94.3 94.3	47.9032 [50.0000]	95.8%			
PFDA	(513.0 / 469.0) 15603441 (513.0 / 169.0) 1621396	(9.30 , 1.00) (0.00 , N/A , 0.1)	463.8 443.6	0.1039 116.6 116.6	47.1138 [50.0000]	94.2%			
PFUnA	(563.0 / 519.0) 17364435 (563.0 / 169.0) 1411923	(9.72 , 1.00) (0.00 , N/A , -0.1)	541.4 497.2	0.0813 77.2 77.2	51.8328 [50.0000]	103.7%			
PFDoA	(613.0 / 569.0) 19844068 (613.0 / 169.0) 2509797	(9.89 , 1.00) (0.00 , N/A , 0.2)	1155.0 574.5	0.1265 98.5 98.5	50.9268 [50.0000]	101.9%			
PFTTrDA	(663.0 / 619.0) 14540959 (663.0 / 169.0) 3176658	(10.02 , 1.01) (N/A , 0.00 , -0.2)	913.8 477.0	0.2185 95.7 95.7	44.1490 [50.0000]	88.3%			
PFTeDA	(713.0 / 669.0) 14363802 (713.0 / 169.0) 2587655	(10.12 , 1.00) (0.00 , N/A , 0.0)	743.7 457.6	0.1802 86.3 86.3	52.7219 [50.0000]	105.4%			

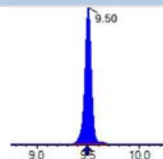
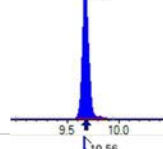
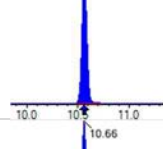
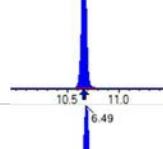
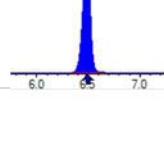
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 23293125 (299.0 / 99.0) 16031671	(6.10 , 1.00) (0.00 , N/A , 0.2)	487.7 599.7	0.6883 103.3 103.3	43.1570 [44.2367]	97.6%			
PFPeS	(349.0 / 80.0) 40257998 (349.0 / 99.0) 14507218	(7.14 , 0.89) (N/A , -0.01 , 0.1)	579.1 626.4	0.3604 97.9 97.9	44.2166 [46.9191]	94.2%			
PFHxS	(399.0 / 80.0) 36249609 (399.0 / 99.0) 11959667	(8.01 , 1.00) (0.00 , N/A , 0.0)	843.8 816.6	0.3299 103.2 103.2	43.5052 [45.5491]	95.5%			
PFHpS	(449.0 / 80.0) 34165710 (449.0 / 99.0) 9559711	(8.78 , 0.93) (N/A , -0.01 , 0.2)	527.3 756.6	0.2798 105.2 105.2	50.8733 [47.5703]	106.9%			
PFOS	(499.0 / 80.0) 37426955 (499.0 / 99.0) 8507309	(9.45 , 1.00) (0.00 , N/A , 0.0)	296.2 967.9	0.2273 99.5 99.5	45.6913 [46.3746]	98.5%			
PFNS	(549.0 / 80.0) 34827827 (549.0 / 99.0) 10345288	(9.77 , 1.03) (N/A , 0.01 , 0.1)	790.8 576.7	0.2970 126.4 126.4	42.6703 [47.9943]	88.9%			
PFDS	(599.0 / 80.0) 40028553 (599.0 / 99.0) 10858587	(9.91 , 1.05) (N/A , 0.01 , 0.0)	1017.2 1059.5	0.2713 121.1 121.1	40.1073 [48.1553]	83.3%			
PFDoS	(699.0 / 80.0) 19338482 (699.0 / 99.0) 4062404	(10.11 , 1.07) (N/A , 0.00 , 0.1)	2147.9 788.7	0.2101 102.6 102.6	48.5080 [48.4781]	100.1%			
4:2FTS	(327.0 / 307.0) 52533701 (327.0 / 81.0) 33743951	(5.81 , 1.00) (0.00 , N/A , 0.1)	457.5 626.3	0.6423 99.6 99.6	169.5946 [186.9055]	90.7%			
6:2FTS	(427.0 / 407.0) 33976168 (427.0 / 81.0) 23921293	(7.54 , 1.00) (0.00 , N/A , 0.0)	590.8 563.0	0.7041 99.6 99.6	167.4568 [189.8085]	88.2%			
8:2FTS	(527.0 / 507.0) 30916525 (527.0 / 81.0) 22675414	(8.96 , 1.00) (0.00 , N/A , -0.2)	506.6 542.7	0.7334 104.4 104.4	151.2327 [191.6577]	78.9%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 41417537 (498.0 / 478.0) 1002957	(10.17 , 1.00) (0.00 , N/A , 0.0)	797.6 720.1	0.0242 151.9 151.9	43.7961 [50.0000]	87.6%			
NMeFOSA	(512.0 / 219.0) 28178500 (512.0 / 169.0) 21249739	(10.60 , 1.00) (0.00 , N/A , 0.1)	1125.8 1011.1	0.7541 110.9 110.9	140.1897 [200.0000]	70.1%			
NEIFOSA	(526.0 / 219.0) 28044055 (526.0 / 169.0) 30021271	(10.69 , 1.00) (0.00 , N/A , 0.0)	998.8 951.1	1.0705 106.6 106.6	168.4066 [200.0000]	84.2%			
NMeFOSAA	(570.0 / 419.0) 7800625 (570.0 / 483.0) 4348294	(9.50 , 1.00) (0.00 , N/A , 0.0)	646.9 602.6	0.5574 111.7 111.7	45.9743 [50.0000]	91.9%			
NEIFOSAA	(584.0 / 419.0) 5857252 (584.0 / 526.0) 3661003	(9.68 , 1.00) (0.01 , N/A , -0.1)	896.7 574.4	0.6250 104.1 104.1	49.2503 [50.0000]	98.5%			
NMeFOSE	(616.0 / 59.0) 7139535	(10.57 , 1.00) (0.01 , N/A , 0.0)	1279.7	N/A 0.0 0.0	207.1536 [200.0000]	103.6%			
NEIFOSE	(630.0 / 59.0) 818300	(10.67 , 1.00) (0.01 , N/A , 0.0)	1394.6	N/A 0.0 0.0	184.6227 [200.0000]	92.3%			
HFPO-DA	(285.0 / 169.0) 12095594 (285.0 / 185.0) 30401904	(6.49 , 1.00) (0.00 , N/A , 0.0)	619.0 572.4	2.5135 91.3 91.3	94.6915 [100.0000]	94.7%			
ADONA	(377.0 / 85.0) 44124675 (377.0 / 251.0) 6294120	(7.39 , 1.14) (N/A , -0.01 , 0.0)	543.8 692.3	0.1426 124.0 124.0	80.6681 [94.2700]	85.6%			
9CI-PF3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000 [93.3254]	N/A%			QC,
11CI-PF3OUDS	(631.0 / 451.0) 54134223 (633.0 / 453.0) 19497896	(10.01 , 1.54) (N/A , 0.01 , 0.2)	1003.0 1229.7	0.3602 123.0 123.0	72.1344 [94.3208]	76.5%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 1997810 (241.0 / 117.0) 2597899	(4.48 , 0.90) (N/A , -0.01 , 0.0)	708.2 713.0	1.3004 95.2 95.2	222.0142 [200.0000]	111.0%			
5:3FTCA	(341.0 / 236.7) 11224360 (341.0 / 217.0) 17876902	(6.78 , 1.10) (N/A , -0.01 , 0.0)	580.9 559.9	1.5927 95.8 95.8	206.9430 [200.0000]	103.5%			
7:3FTCA	(441.0 / 317.0) 13750008 (441.0 / 337.0) 12189740	(8.59 , 1.40) (N/A , 0.00 , 0.1)	449.3 527.9	0.8865 106.1 106.1	205.7856 [200.0000]	102.9%			
PFEESA	(315.0 / 135.0) 28886828 (315.0 / 83.0) 8797358	(6.59 , 1.07) (N/A , -0.01 , -0.1)	725.1 696.4	0.3045 98.9 98.9	82.0190 [89.2459]	91.9%			
PFMPA	(229.0 / 85.0) 7979636	(4.19 , 0.84) (N/A , -0.01 , 0.0)	926.2	N/A 0.0 0.0	102.2546 [100.0000]	102.3%			
PFMBA	(279.0 / 85.0) 20519621	(5.38 , 1.08) (N/A , -0.01 , 0.0)	639.3	N/A 0.0 0.0	100.4454 [100.0000]	100.4%			
NFDHA	(295.0 / 201.0) 15990959 (295.0 / 85.0) 13998734	(6.02 , 0.98) (N/A , -0.01 , 0.0)	572.8 576.5	0.8754 100.8 100.8	94.5776 [100.0000]	94.6%			
13C3_PFBa_IIS	(216.0 / 172.0) 217703	(3.68 , N/A) (N/A , -0.01 , N/A)	472.5	N/A	0.8054 [1.0000]	80.5% { 74.8% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 356626	(6.15 , N/A) (N/A , 0.00 , N/A)	422.7	N/A	0.8980 [1.0000]	89.8% { 89.0% }			
13C4_PFOA_IIS	(417.0 / 372.0) 380991	(7.88 , N/A) (N/A , -0.01 , N/A)	642.9	N/A	0.9537 [1.0000]	95.4% { 95.9% }			
13C5_PFNA_IIS	(468.0 / 423.0) 276233	(8.62 , N/A) (N/A , 0.00 , N/A)	375.4	N/A	0.8357 [1.0000]	83.6% { 76.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 320157	(9.31 , N/A) (N/A , 0.00 , N/A)	299.3	N/A	0.8966 [1.0000]	89.7% { 96.4% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 627539	(8.01 , N/A) (N/A , -0.01 , N/A)	806.0	N/A	0.8998 [1.0000]	90.0% { 84.3% }			
13C4_PFOS_IIS	(503.0 / 79.9) 568216	(9.45 , N/A) (N/A , 0.00 , N/A)	395.9	N/A	0.8240 [1.0000]	82.4% { 86.2% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1835849	(3.68 , N/A) (N/A , -0.01 , N/A)	541.1	N/A	7.8473 [8.0000]	98.1% { 76.1% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1203862	(4.99 , N/A) (N/A , -0.01 , N/A)	527.1	N/A	3.6939 [4.0000]	92.3% { 79.2% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 776299	(6.14 , N/A) (N/A , 0.00 , N/A)	448.6	N/A	1.9571 [2.0000]	97.9% { 89.7% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 720456	(7.07 , N/A) (N/A , -0.01 , N/A)	426.1	N/A	2.0328 [2.0000]	101.6% { 86.6% }			
13C8_PFOA_EIS	(421.0 / 376.0) 776806	(7.88 , N/A) (N/A , -0.01 , N/A)	518.3	N/A	1.8607 [2.0000]	93.0% { 95.6% }			
13C9_PFNA_EIS	(472.0 / 427.0) 310642	(8.63 , N/A) (N/A , 0.00 , N/A)	352.0	N/A	1.0216 [1.0000]	102.2% { 81.0% }			
13C6_PFDA_EIS	(519.0 / 474.0) 371862	(9.30 , N/A) (N/A , 0.00 , N/A)	247.2	N/A	0.8879 [1.0000]	88.8% { 82.9% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 423055	(9.72 , N/A) (N/A , 0.00 , N/A)	364.8	N/A	0.8335 [1.0000]	83.4% { 69.8% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 454660	(9.89 , N/A) (N/A , 0.00 , N/A)	474.4	N/A	0.8139 [1.0000]	81.4% { 66.6% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 299962	(10.12 , N/A) (N/A , 0.00 , N/A)	1274.6	N/A	0.8135 [1.0000]	81.4% { 68.1% }			
13C3_PFBs_EIS	(302.0 / 80.0) 1935222	(6.10 , N/A) (N/A , -0.01 , N/A)	478.9	N/A	1.8313 [2.0000]	91.6% { 76.9% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1084168	(8.01 , N/A) (N/A , -0.01 , N/A)	854.0	N/A	1.9329 [2.0000]	96.6% { 85.1% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1411926	(9.45 , N/A) (N/A , 0.00 , N/A)	67.0	N/A	1.9187 [2.0000]	95.9% { 86.5% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 434306	(5.81 , N/A) (N/A , -0.01 , N/A)	517.5	N/A	3.4899 [4.0000]	87.2% { 84.4% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 592965	(7.54 , N/A) (N/A , -0.01 , N/A)	575.7	N/A	3.8342 [4.0000]	95.9% { 99.1% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 606946	(8.96 , N/A) (N/A , 0.00 , N/A)	694.8	N/A	3.9809 [4.0000]	99.5% { 99.3% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 1970700	(10.17 , N/A) (N/A , 0.01 , N/A)	682.3	N/A	2.0142 [2.0000]	100.7% { 82.7% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 462130	(10.60 , N/A) (N/A , 0.00 , N/A)	830.8	N/A	2.4356 [2.0000]	121.8% { 101.5% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 362352	(10.69 , N/A) (N/A , 0.00 , N/A)	386.0	N/A	2.1433 [2.0000]	107.2% { 88.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 817305	(9.50 , N/A) (N/A , 0.01 , N/A)	324.3	N/A	4.0599 [4.0000]	101.5% { 78.0% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 548551	(9.67 , N/A) (N/A , 0.00 , N/A)	392.8	N/A	3.1814 [4.0000]	79.5% { 60.0% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 610519	(10.56 , N/A) (N/A , 0.00 , N/A)	1001.0	N/A	20.0832 [20.0000]	100.4% { 82.9% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 233778	(10.66 , N/A) (N/A , 0.00 , N/A)	1021.8	N/A	19.0161 [20.0000]	95.1% { 77.6% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1664825	(6.49 , N/A) (N/A , -0.01 , N/A)	662.7	N/A	7.5580 [8.0000]	94.5% { 84.8% }			

SECOND-SOURCE CALIBRATION VERIFICATION**EPA 1633 SPLP****Laboratory:** APPL, LLC**SDG:****Client:** AECOM**Project:** Red Hill AFFF Assessment Sampling**Calibration:** 2253007**Laboratory ID:** SB03988-SCV1**Sequence:** SB03988**Standard ID:** 22L0308

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
PFBA	8.00	7.96	-0.5	30.00
PFPEA	4.00	3.80	-5.1	30.00
PFHXA	2.00	1.91	-4.3	30.00
PFHPA	2.00	2.04	1.8	30.00
PFOA	2.00	1.91	-4.6	30.00
PFNA	2.00	1.94	-3.0	30.00
PFDA	2.00	2.06	3.2	30.00
PFUnA	2.00	2.11	5.6	30.00
PFDOA	2.00	1.82	-8.9	30.00
PFTRDA	2.00	2.17	8.3	30.00
PFTEDA	2.00	2.50	24.8	30.00
PFBS	1.77	1.86	5.0	30.00
PFPEs	1.88	1.90	1.2	30.00
PFHXS	1.83	1.74	-4.7	30.00
PFHPS	1.91	1.66	-13.0	30.00
PFOS	1.86	1.41	-24.4	30.00
PFNS	1.92	1.77	-7.7	30.00
PFDS	1.93	1.86	-3.7	30.00
PFDOS	1.94	1.81	-6.7	30.00
4:2FTS	7.50	7.71	2.8	30.00
6:2FTS	7.60	8.61	13.3	30.00
8:2FTS	7.68	6.94	-9.6	30.00
PFOSA	2.00	1.93	-3.5	30.00
NMeFOSA	8.00	7.89	-1.4	30.00
NEtFOSA	8.00	7.56	-5.5	30.00
NMeFOSAA	2.00	1.83	-8.6	30.00
NEtFOSAA	2.00	2.03	1.7	30.00

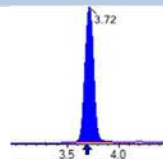
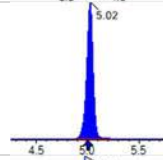
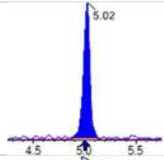
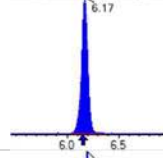
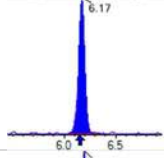
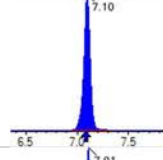
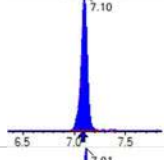
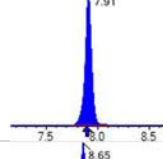
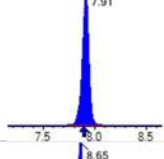
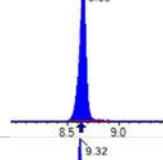
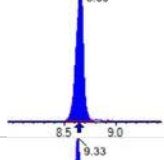
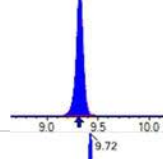
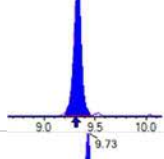
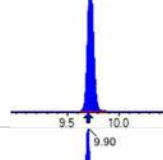
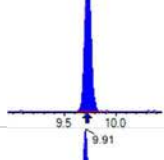
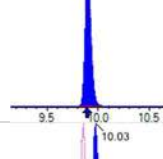
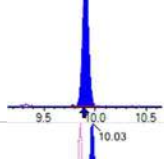
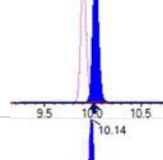
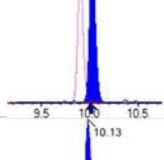
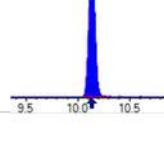
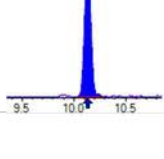
SECOND-SOURCE CALIBRATION VERIFICATION**EPA 1633 SPLP****Laboratory:** APPL, LLC**SDG:****Client:** AECOM**Project:** Red Hill AFFF Assessment Sampling**Calibration:** 2253007**Laboratory ID:** SB03988-SCV1**Sequence:** SB03988**Standard ID:** 22L0308

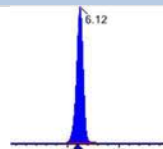
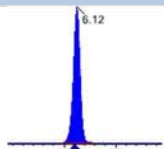
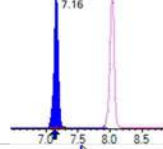
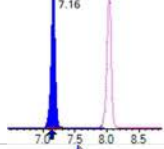
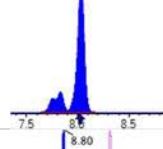
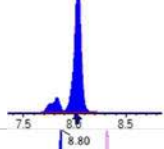
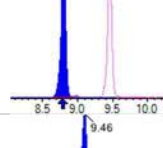
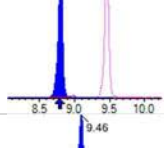
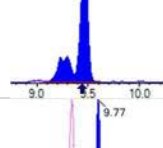
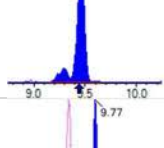
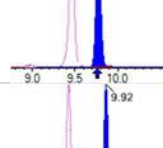
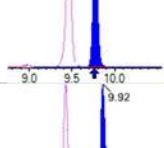
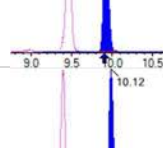
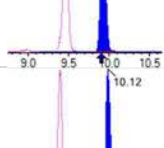
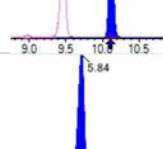
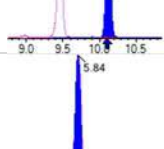
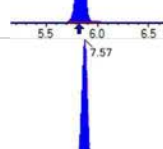
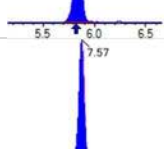
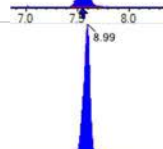
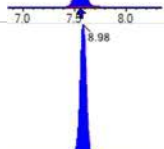

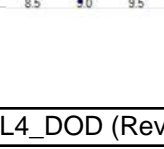
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NEtFOSE	8.00	8.23	2.8	30.00
HFPO-DA	4.00	3.94	-1.4	30.00
ADONA	3.78	3.81	0.7	30.00
PFEESA	3.56	3.02	-15.2	30.00
PFMPA	4.00	3.52	-12.0	30.00
PFMBA	4.00	3.68	-7.9	30.00
NFDHA	4.00	3.91	-2.2	30.00
9CL-PF3ONS	3.74	3.69	-1.3	30.00
11CL-PF3OUDS	3.78	3.88	2.7	30.00
3:3FTCA	8.00	6.95	-13.1	30.00
5:3FTCA	8.00	6.99	-12.6	30.00
7:3FTCA	8.00	7.40	-7.5	30.00
13C4-PFBA	8.00	8.49	6.2	30.00
13C5-PFPEA	4.00	4.54	13.4	30.00
13C5-PFHXA	2.00	2.23	11.5	30.00
13C4-PFHFA	2.00	2.08	4.2	30.00
13C8-PFOA	2.00	2.15	7.6	30.00
13C9-PFNA	1.00	1.08	7.7	30.00
13C6-PFDA	1.00	1.05	4.6	30.00
13C7-PFUnA	1.00	1.10	9.5	30.00
13C2-PFDOA	1.00	1.09	9.1	30.00
13C2-PFTEDA	1.00	0.927	-7.3	30.00
13C3-PFBS	2.00	2.23	11.6	30.00
13C3-PFHXS	2.00	2.06	3.2	30.00
13C8-PFOS	2.00	2.36	18.0	30.00
13C2-4:2FTS	4.00	4.20	4.9	30.00
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13C2-8:2FTS	4.00	4.32	8.1	30.00

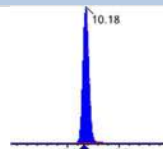
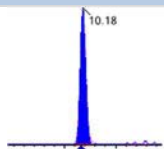
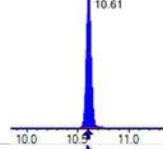
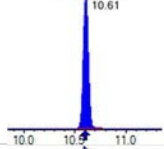
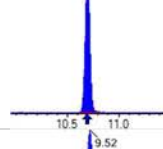
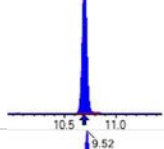
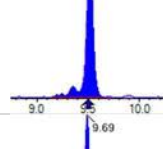
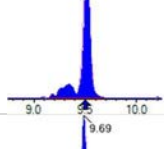
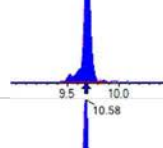
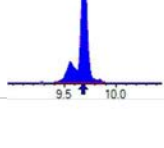
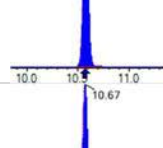
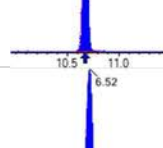
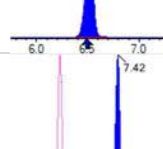
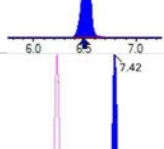
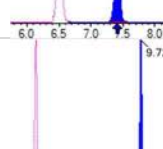
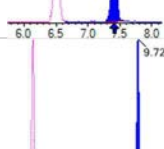
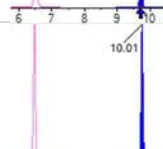
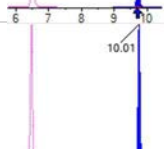

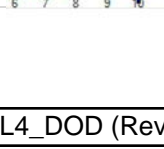
SECOND-SOURCE CALIBRATION VERIFICATION**EPA 1633 SPLP****Laboratory:** APPL, LLC**SDG:****Client:** AECOM**Project:** Red Hill AFFF Assessment Sampling**Calibration:** 2253007**Laboratory ID:** SB03988-SCV1**Sequence:** SB03988**Standard ID:** 22L0308

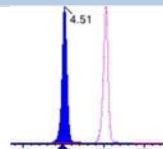
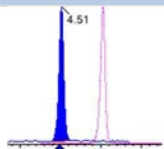
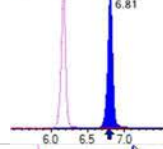
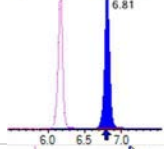
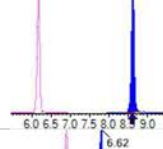
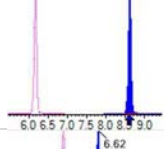
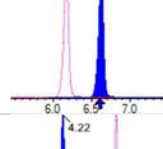
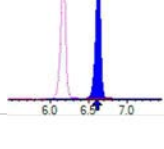
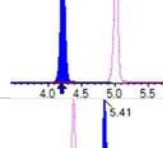
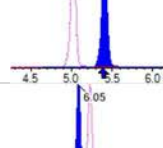
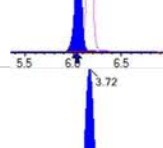
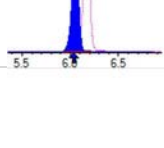
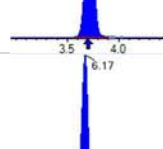
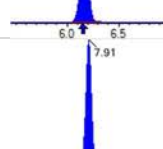
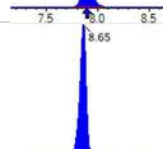

13C8-PFOSA	2.00	2.18	9.2	30.00
D5-NETFOSA	2.00	2.35	17.3	30.00
D3-NMEFOSA	2.00	2.27	13.3	30.00
D3-NMEFOSAA	4.00	4.49	12.4	30.00
D5-NETFOSAA	4.00	4.14	3.5	30.00
D7-NMEFOSE	20.0	25.6	27.8	30.00
D9-NETFOSSE	20.0	23.5	17.5	30.00
13C3-HFPO-DA	8.00	8.51	6.4	30.00

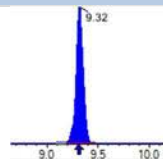
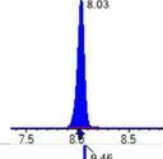
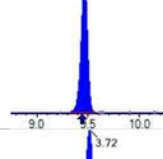
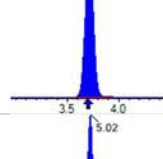
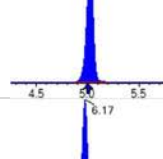
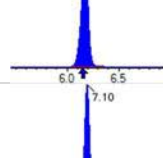
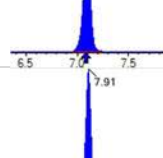
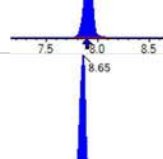
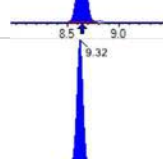
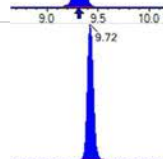

* Values outside of QC limits

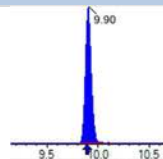
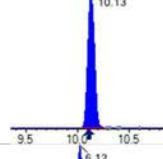
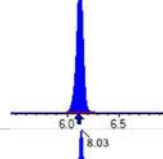
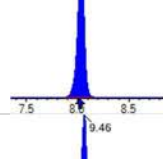
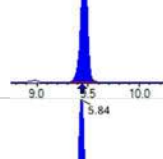
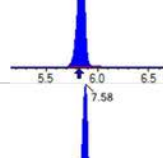
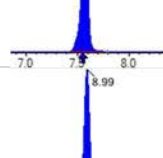
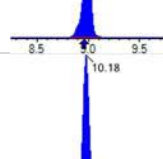
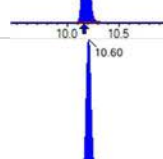
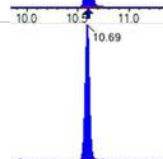
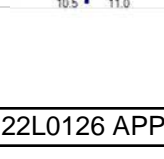
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 2025875	(3.72 , 1.00) (0.00 , N/A , 0.0)	475.4	N/A 0.0 0.0	7.9600 [8.0000]	99.5%			
PFPeA	(263.0 / 219.0) 1239150 (263.0 / 69.0) 13224	(5.02 , 1.00) (0.00 , N/A , 0.1)	505.2 147.4	0.0107 98.9 98.9	3.7957 [4.0000]	94.9%			
PFHxA	(313.0 / 269.0) 796820 (313.0 / 119.0) 74864	(6.17 , 1.00) (0.00 , N/A , 0.0)	476.8 260.3	0.0940 104.4 104.4	1.9131 [2.0000]	95.7%			
PFHpA	(363.0 / 319.0) 744591 (363.0 / 169.0) 203780	(7.10 , 1.00) (0.00 , N/A , -0.1)	469.1 431.4	0.2737 89.9 89.9	2.0352 [2.0000]	101.8%			
PFOA	(413.0 / 369.0) 779430 (413.0 / 169.0) 249349	(7.91 , 1.00) (0.00 , N/A , -0.2)	605.2 503.1	0.3199 95.2 95.2	1.9076 [2.0000]	95.4%			
PFNA	(463.0 / 419.0) 626203 (463.0 / 169.0) 119829	(8.65 , 1.00) (0.00 , N/A , -0.1)	526.2 336.1	0.1914 91.5 91.5	1.9402 [2.0000]	97.0%			
PFDA	(513.0 / 469.0) 855738 (513.0 / 169.0) 81512	(9.32 , 1.00) (0.00 , N/A , -0.6)	569.7 243.2	0.0953 106.9 106.9	2.0638 [2.0000]	103.2%			
PFUnA	(563.0 / 519.0) 988647 (563.0 / 169.0) 91942	(9.72 , 1.00) (0.00 , N/A , -0.4)	589.5 396.8	0.0930 88.3 88.3	2.1126 [2.0000]	105.6%			
PFDoA	(613.0 / 569.0) 1011939 (613.0 / 169.0) 121253	(9.90 , 1.00) (0.00 , N/A , -0.4)	705.1 354.4	0.1198 93.3 93.3	1.8219 [2.0000]	91.1%			
PFTTrDA	(663.0 / 619.0) 1016481 (663.0 / 169.0) 166408	(10.03 , 1.01) (N/A , 0.01 , 0.2)	877.5 305.6	0.1637 71.7 71.7	2.1651 [2.0000]	108.3%			
PFTeDA	(713.0 / 669.0) 823329 (713.0 / 169.0) 138435	(10.14 , 1.00) (0.00 , N/A , 0.3)	473.4 255.0	0.1681 80.5 80.5	2.4954 [2.0000]	124.8%			

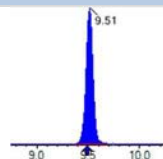
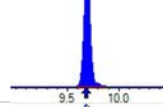
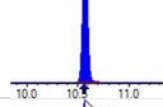
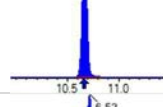
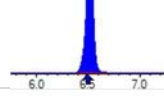
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 1196837 (299.0 / 99.0) 732502	(6.12 , 1.00) (0.00 , N/A , 0.1)	614.9 594.9	0.6120 91.8 91.8	1.8579 [1.7695]	105.0%			
PFPeS	(349.0 / 80.0) 1812053 (349.0 / 99.0) 676544	(7.16 , 0.89) (N/A , 0.02 , 0.0)	664.2 576.2	0.3734 101.4 101.4	1.9021 [1.8768]	101.4%			
PFHxS	(399.0 / 80.0) 1521204 (399.0 / 99.0) 529961	(8.03 , 1.00) (0.00 , N/A , 0.1)	586.6 680.3	0.3484 108.9 108.9	1.7448 [1.8220]	95.8%			
PFHpS	(449.0 / 80.0) 1559514 (449.0 / 99.0) 427164	(8.80 , 0.93) (N/A , 0.02 , 0.0)	630.5 430.1	0.2739 103.0 103.0	1.6618 [1.9028]	87.3%			
PFOS	(499.0 / 80.0) 1610036 (499.0 / 99.0) 376326	(9.46 , 1.00) (0.00 , N/A , 0.1)	345.4 569.4	0.2337 102.3 102.3	1.4066 [1.8550]	75.8%			24876293.84 732740000
PFNS	(549.0 / 80.0) 2021181 (549.0 / 99.0) 477406	(9.77 , 1.03) (N/A , 0.01 , 0.1)	665.4 474.9	0.2362 100.5 100.5	1.7722 [1.9198]	92.3%			
PFDS	(599.0 / 80.0) 2592972 (599.0 / 99.0) 558127	(9.92 , 1.05) (N/A , 0.02 , 0.1)	926.0 618.5	0.2152 96.1 96.1	1.8593 [1.9262]	96.5%			
PFDoS	(699.0 / 80.0) 1008552 (699.0 / 99.0) 209472	(10.12 , 1.07) (N/A , 0.01 , 0.1)	936.2 582.9	0.2077 101.5 101.5	1.8104 [1.9391]	93.4%			
4:2FTS	(327.0 / 307.0) 2813195 (327.0 / 81.0) 1705177	(5.84 , 1.00) (0.00 , N/A , 0.1)	699.7 557.0	0.6061 93.9 93.9	7.7129 [7.4762]	103.2%			
6:2FTS	(427.0 / 407.0) 1769217 (427.0 / 81.0) 1224890	(7.57 , 1.00) (-0.01 , N/A , 0.1)	712.4 572.5	0.6923 97.9 97.9	8.6093 [7.5923]	113.4%			
8:2FTS	(527.0 / 507.0) 1509163 (527.0 / 81.0) 1131163	(8.99 , 1.00) (0.00 , N/A , 0.6)	551.2 458.4	0.7495 106.7 106.7	6.9407 [7.6663]	90.5%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 2248241 (498.0 / 478.0) 52918	(10.18 , 1.00) (0.00 , N/A , 0.0)	926.7 320.6	0.0235 147.7 147.7	1.9292 [2.0000]	96.5%			
NMeFOSA	(512.0 / 219.0) 1675884 (512.0 / 169.0) 1099956	(10.61 , 1.00) (0.00 , N/A , 0.0)	1098.7 955.8	0.6563 96.5 96.5	7.8872 [8.0000]	98.6%			
NEIFOSA	(526.0 / 219.0) 1565649 (526.0 / 169.0) 1668857	(10.70 , 1.00) (0.00 , N/A , 0.0)	1216.5 1323.9	1.0659 106.1 106.1	7.5589 [8.0000]	94.5%			
NMeFOSAA	(570.0 / 419.0) 390268 (570.0 / 483.0) 208038	(9.52 , 1.00) (0.00 , N/A , -0.1)	326.1 354.8	0.5331 106.8 106.8	1.8288 [2.0000]	91.4%			
NEIFOSAA	(584.0 / 419.0) 357604 (584.0 / 526.0) 236787	(9.69 , 1.00) (0.00 , N/A , 0.3)	431.9 537.2	0.6621 110.2 110.2	2.0343 [2.0000]	101.7%			
NMeFOSE	(616.0 / 59.0) 336960	(10.58 , 1.00) (0.01 , N/A , 0.0)	1062.8	N/A 0.0 0.0	6.7628 [8.0000]	84.5%			
NEtFOSE	(630.0 / 59.0) 51211	(10.67 , 1.00) (0.01 , N/A , 0.0)	634.3	N/A 0.0 0.0	8.2278 [8.0000]	102.8%			
HFPO-DA	(285.0 / 169.0) 586202 (285.0 / 185.0) 1543536	(6.52 , 1.00) (0.00 , N/A , 0.0)	635.2 667.4	2.6331 95.7 95.7	3.9424 [4.0000]	98.6%			
ADONA	(377.0 / 85.0) 2424152 (377.0 / 251.0) 268625	(7.42 , 1.14) (N/A , 0.02 , 0.0)	633.0 342.2	0.1108 96.3 96.3	3.8072 [3.7708]	101.0%			
9CI-Pf3ONS	(531.0 / 351.0) 6169299 (533.0 / 353.0) 1968292	(9.72 , 1.49) (N/A , 0.01 , -0.1)	664.7 722.0	0.3190 99.7 99.7	3.6917 [3.7330]	98.9%			
11CI-Pf3OUDS	(631.0 / 451.0) 3391732 (633.0 / 453.0) 1108978	(10.01 , 1.54) (N/A , 0.01 , 0.1)	1196.5 860.6	0.3270 111.7 111.7	3.8826 [3.7728]	102.9%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 79446 (241.0 / 117.0) 107676	(4.51 , 0.90) (N/A , 0.02 , 0.1)	556.4 280.3	1.3553 99.2 99.2	6.9542 [8.0000]	86.9%			
5:3FTCA	(341.0 / 236.7) 446490 (341.0 / 217.0) 714770	(6.81 , 1.10) (N/A , 0.02 , 0.2)	535.4 509.5	1.6009 96.3 96.3	6.9890 [8.0000]	87.4%			
7:3FTCA	(441.0 / 317.0) 582223 (441.0 / 337.0) 502871	(8.62 , 1.40) (N/A , 0.02 , 0.1)	449.7 426.3	0.8637 103.3 103.3	7.3981 [8.0000]	92.5%			
PFEESA	(315.0 / 135.0) 1252313 (315.0 / 83.0) 404798	(6.62 , 1.07) (N/A , 0.02 , -0.1)	640.6 474.6	0.3232 105.0 105.0	3.0189 [3.5698]	84.6%			
PFMPA	(229.0 / 85.0) 348558	(4.22 , 0.84) (N/A , 0.02 , 0.0)	934.7	N/A 0.0 0.0	3.5182 [4.0000]	88.0%			
PFMBA	(279.0 / 85.0) 955599	(5.41 , 1.08) (N/A , 0.02 , 0.0)	719.9	N/A 0.0 0.0	3.6846 [4.0000]	92.1%			
NFDHA	(295.0 / 201.0) 778853 (295.0 / 85.0) 668163	(6.05 , 0.98) (N/A , 0.03 , 0.2)	599.6 551.4	0.8579 98.8 98.8	3.9110 [4.0000]	97.8%			
13C3_PFBA_IIS	(216.0 / 172.0) 266017	(3.72 , N/A) (N/A , 0.02 , N/A)	531.7	N/A	0.9841 [1.0000]	98.4% { 91.4% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 368731	(6.17 , N/A) (N/A , 0.02 , N/A)	531.9	N/A	0.9285 [1.0000]	92.8% { 92.0% }			
13C4_PFOA_IIS	(417.0 / 372.0) 373009	(7.91 , N/A) (N/A , 0.02 , N/A)	592.9	N/A	0.9337 [1.0000]	93.4% { 93.9% }			
13C5_PFNA_IIS	(468.0 / 423.0) 300536	(8.65 , N/A) (N/A , 0.03 , N/A)	608.8	N/A	0.9092 [1.0000]	90.9% { 82.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 340355	(9.32 , N/A) (N/A , 0.01 , N/A)	388.7	N/A	0.9532 [1.0000]	95.3% { 102.5% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 614664	(8.03 , N/A) (N/A , 0.02 , N/A)	506.0	N/A	0.8813 [1.0000]	88.1% { 82.6% }			
13C4_PFOS_IIS	(503.0 / 79.9) 645552	(9.46 , N/A) (N/A , 0.02 , N/A)	376.2	N/A	0.9362 [1.0000]	93.6% { 97.9% }			
13C4_PFBA_EIS	(217.0 / 172.0) 2427965	(3.72 , N/A) (N/A , 0.02 , N/A)	607.3	N/A	8.4934 [8.0000]	106.2% { 100.7% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1528362	(5.02 , N/A) (N/A , 0.03 , N/A)	526.0	N/A	4.5356 [4.0000]	113.4% { 100.6% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 914351	(6.17 , N/A) (N/A , 0.03 , N/A)	440.3	N/A	2.2294 [2.0000]	111.5% { 105.7% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 764029	(7.10 , N/A) (N/A , 0.02 , N/A)	567.1	N/A	2.0849 [2.0000]	104.2% { 91.9% }			
13C8_PFOA_EIS	(421.0 / 376.0) 879671	(7.91 , N/A) (N/A , 0.02 , N/A)	555.2	N/A	2.1521 [2.0000]	107.6% { 108.3% }			
13C9_PFNA_EIS	(472.0 / 427.0) 356393	(8.65 , N/A) (N/A , 0.02 , N/A)	364.3	N/A	1.0773 [1.0000]	107.7% { 92.9% }			
13C6_PFDA_EIS	(519.0 / 474.0) 465568	(9.32 , N/A) (N/A , 0.02 , N/A)	435.6	N/A	1.0457 [1.0000]	104.6% { 103.8% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 590973	(9.72 , N/A) (N/A , 0.01 , N/A)	387.9	N/A	1.0953 [1.0000]	109.5% { 97.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 648087	(9.90 , N/A) (N/A , 0.01 , N/A)	678.1	N/A	1.0913 [1.0000]	109.1% { 94.9% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 363266	(10.13 , N/A) (N/A , 0.01 , N/A)	942.6	N/A	0.9267 [1.0000]	92.7% { 82.5% }			
13C3_PFBs_EIS	(302.0 / 80.0) 2309786	(6.12 , N/A) (N/A , 0.02 , N/A)	660.4	N/A	2.2316 [2.0000]	111.6% { 91.7% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1134401	(8.03 , N/A) (N/A , 0.02 , N/A)	875.3	N/A	2.0648 [2.0000]	103.2% { 89.1% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1972947	(9.46 , N/A) (N/A , 0.02 , N/A)	327.9	N/A	2.3598 [2.0000]	118.0% { 120.8% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 511386	(5.84 , N/A) (N/A , 0.03 , N/A)	452.4	N/A	4.1954 [4.0000]	104.9% { 99.4% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 600578	(7.58 , N/A) (N/A , 0.03 , N/A)	545.9	N/A	3.9648 [4.0000]	99.1% { 100.4% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 645563	(8.99 , N/A) (N/A , 0.03 , N/A)	514.3	N/A	4.3229 [4.0000]	108.1% { 105.7% }			
13C8_PFOSA_EIS	(506.0 / 78.0) 2428477	(10.18 , N/A) (N/A , 0.02 , N/A)	800.0	N/A	2.1847 [2.0000]	109.2% { 101.9% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 488523	(10.60 , N/A) (N/A , 0.01 , N/A)	1048.3	N/A	2.2662 [2.0000]	113.3% { 107.3% }			
D5_NEtFOSA_EIS	(531.0 / 169.0) 450697	(10.69 , N/A) (N/A , 0.01 , N/A)	1018.6	N/A	2.3465 [2.0000]	117.3% { 110.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 1027916	(9.51 , N/A) (N/A , 0.02 , N/A)	465.3	N/A	4.4944 [4.0000]	112.4% { 98.0% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 810814	(9.69 , N/A) (N/A , 0.02 , N/A)	362.0	N/A	4.1391 [4.0000]	103.5% { 88.7% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 882614	(10.57 , N/A) (N/A , 0.01 , N/A)	1417.3	N/A	25.5557 [20.0000]	127.8% { 119.9% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 328289	(10.67 , N/A) (N/A , 0.01 , N/A)	1140.5	N/A	23.5048 [20.0000]	117.5% { 108.9% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1937939	(6.52 , N/A) (N/A , 0.02 , N/A)	868.8	N/A	8.5091 [8.0000]	106.4% { 98.8% }			

ANALYSIS SEQUENCE BLANKS

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 Client: AECOM
 Sequence: SB03988
 Calibration: 2253007

SDG:
 Project: Red Hill AFFF Assessment Sam
 Instrument: Saphira

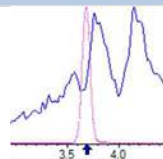
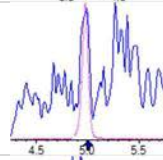
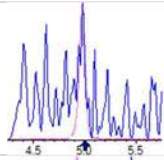
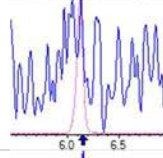
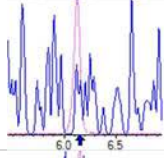
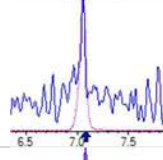
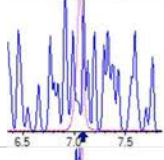
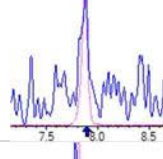
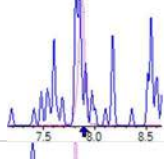
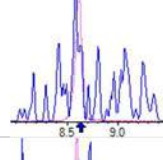
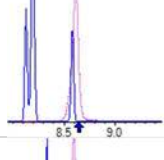
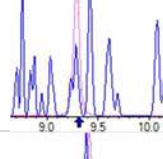
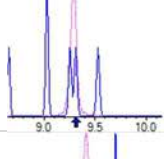
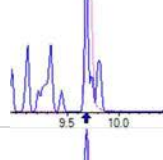
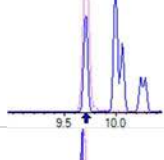
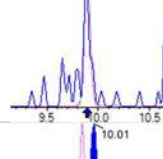
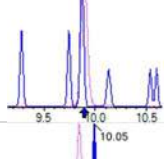
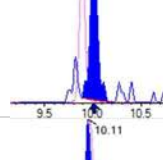
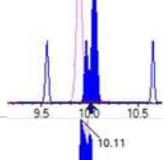
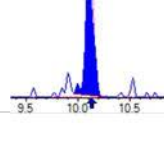
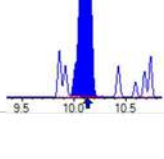
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	PFPEA	0.00	ng/mL	0.20	U
	PFHXA	0.00	ng/mL	0.10	U
	PFHPA	0.00	ng/mL	0.10	U
	PFOA	0.00	ng/mL	0.10	U
	PFNA	0.00	ng/mL	0.10	U
	PFDA	0.00	ng/mL	0.10	U
	PFUnA	0.00	ng/mL	0.10	U
	PFDOA	0.00	ng/mL	0.10	U
	PFTRDA	0.0254	ng/mL	0.10	U
	PFTEDA	0.0463	ng/mL	0.10	U
	PFBS	0.00	ng/mL	0.10	U
	PFPEs	0.00	ng/mL	0.10	U
	PFHXS	0.00	ng/mL	0.10	U
	PFHPS	0.00	ng/mL	0.10	U
	PFOS	0.0164	ng/mL	0.10	U
	PFNS	0.00	ng/mL	0.10	U
	PFDS	0.00	ng/mL	0.10	U
	PFDOS	0.00	ng/mL	0.10	U
	4:2FTS	0.00	ng/mL	0.40	U
	6:2FTS	0.00	ng/mL	0.40	U
	8:2FTS	0.00	ng/mL	0.40	U
	PFOSA	0.0148	ng/mL	0.10	U
	NMeFOSA	0.00	ng/mL	0.40	U
	NEtFOSA	0.00	ng/mL	0.40	U
	NMeFOSAA	0.0202	ng/mL	0.10	U
	NEtFOSAA	0.0362	ng/mL	0.10	U
	NMeFOSE	0.0780	ng/mL	0.40	U
	NEtFOSE	0.0604	ng/mL	0.40	U
	HFPO-DA	0.00	ng/mL	0.20	U
	ADONA	0.00	ng/mL	0.20	U
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	PFMPA	0.00	ng/mL	0.20	U

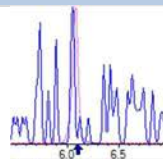
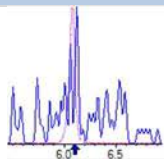
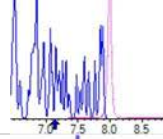
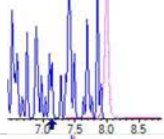
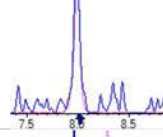
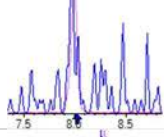
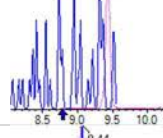
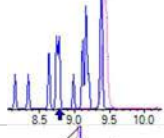
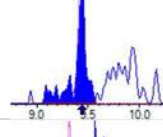
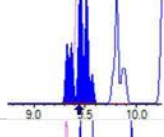
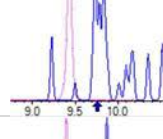
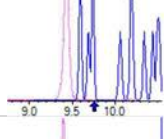
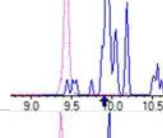
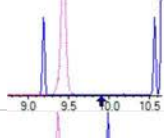
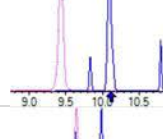
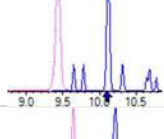
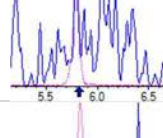
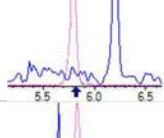
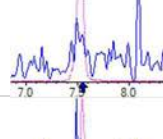
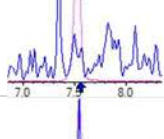
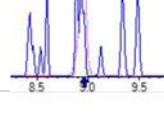
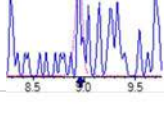
ANALYSIS SEQUENCE BLANKS

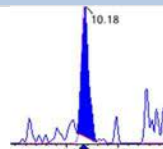
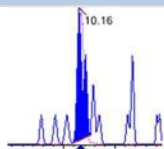
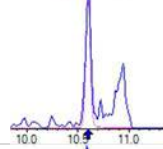
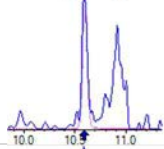
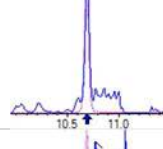
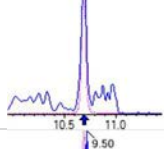
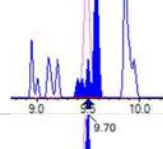
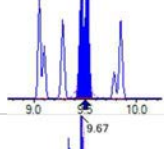
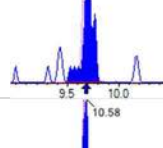
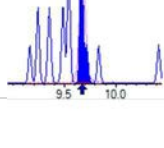
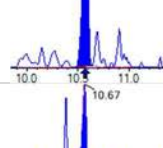
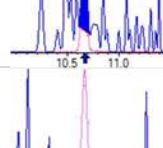
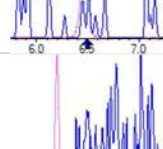
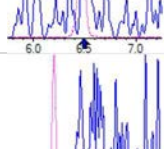
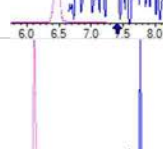
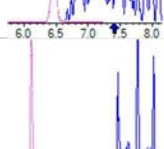
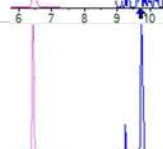
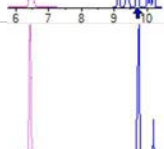

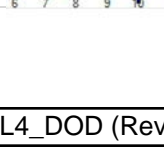
Laboratory: APPL, LLC
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 Calibration: 2253007

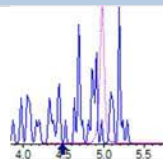
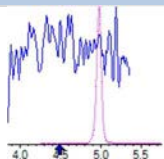
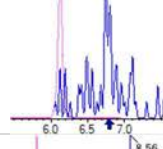
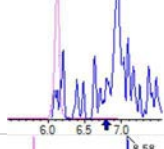
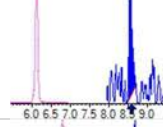
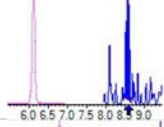
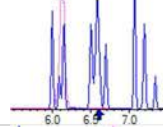
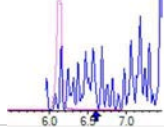
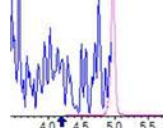
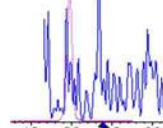
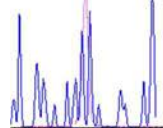
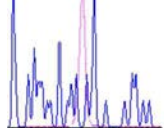
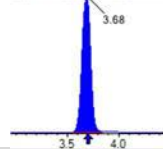
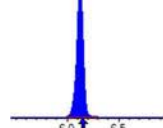
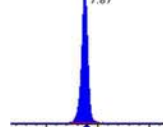
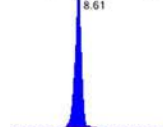
SDG:
 Project: Red Hill AFFF Assessment Sam
 Instrument: Saphira

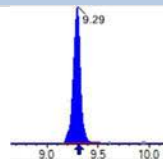
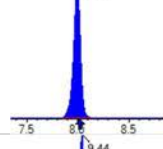
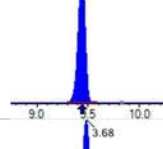
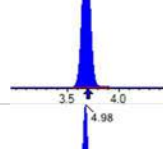
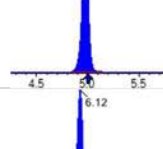
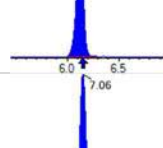
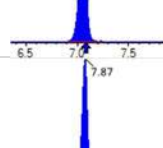
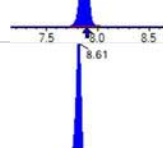
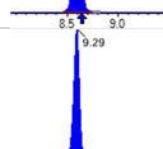
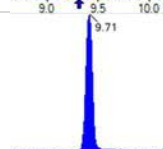
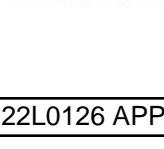
Lab Sample ID	Analyte	Found	Units	RL	C
SB03988-ICB1	PFMBA	0.00	ng/mL	0.20	U
	NFDHA	0.00	ng/mL	0.20	U
	9CL-PF3ONS	0.00	ng/mL	0.20	U
	11CL-PF3OUDS	0.00	ng/mL	0.20	U
	3:3FTCA	0.00	ng/mL	0.40	U
	5:3FTCA	0.00	ng/mL	0.40	U
	7:3FTCA	0.0543	ng/mL	0.40	U
	13C4-PFBA	8.54	ng/mL		
	13C5-PFPEA	3.99	ng/mL		
	13C5-PFHXA	2.07	ng/mL		
	13C4-PFHPA	2.04	ng/mL		
	13C8-PFOA	2.10	ng/mL		
	13C9-PFNA	1.04	ng/mL		
	13C6-PFDA	1.17	ng/mL		
	13C7-PFUnA	1.22	ng/mL		
	13C2-PFDOA	1.20	ng/mL		
	13C2-PFTEDA	1.49	ng/mL		
	13C3-PFBS	2.33	ng/mL		
	13C3-PFHXS	2.28	ng/mL		
	13C8-PFOS	2.19	ng/mL		
	13C2-4:2FTS	4.73	ng/mL		
	13C2-6:2FTS	4.34	ng/mL		
	13C2-8:2FTS	4.52	ng/mL		
	13C8-PFOSA	1.96	ng/mL		
	D5-NETFOSA	2.44	ng/mL		
	D3-NMEFOSA	2.13	ng/mL		
	D3-NMEFOSAA	3.93	ng/mL		
	D5-NETFOSAA	4.05	ng/mL		
	D7-NMEFOSE	23.2	ng/mL		
	D9-NETFOSE	23.9	ng/mL		
	13C3-HFPO-DA	8.36	ng/mL		

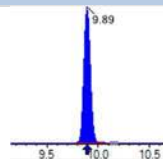
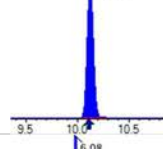
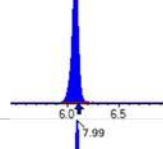
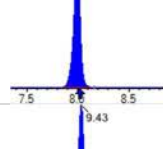
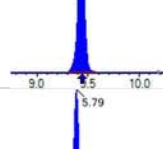
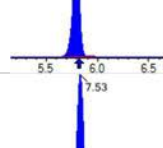
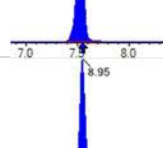
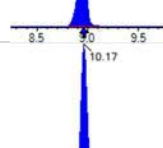
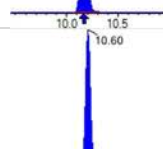
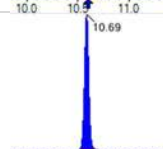
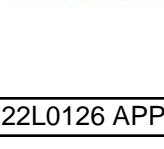
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(263.0 / 219.0) N/A (263.0 / 69.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDaA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) 10431 (663.0 / 169.0) 1328	(10.01 , 1.01) (N/A , -0.01 , -2.2)	33.3 135.5	0.1273 55.8 55.8	0.0254	N/A			
PFTeDA	(713.0 / 669.0) 19524 (713.0 / 169.0) 9254	(10.11 , 1.00) (-0.02 , N/A , -0.1)	54.0 20.8	0.4739 226.9 226.9	0.0463	N/A			IR2,

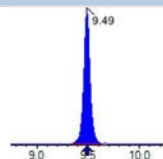




Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) N/A (299.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	(349.0 / 80.0) N/A (349.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	(399.0 / 80.0) N/A (399.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) 17852 (499.0 / 99.0) 4020	(9.44 , 1.00) (0.01 , N/A , -2.1)	38.3 527.7	0.2252 98.6 98.6	0.0164	N/A			MI5 DG 2022-12-28
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(699.0 / 80.0) N/A (699.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) N/A (427.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 15819 (498.0 / 478.0) 2011	(10.18 , 1.00) (0.01 , N/A , 1.0)	22.1 18.9	0.1271 797.6 797.6	0.0148	N/A			
NMeFOSA	(512.0 / 219.0) N/A (512.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEIFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) 3856 (570.0 / 483.0) 3131	(9.58 , 1.01) (0.09 , N/A , 4.8)	33.0 467.1	0.8119 162.7 162.7	0.0202	N/A			IR2,
NEIFOSAA	(584.0 / 419.0) 6366 (584.0 / 526.0) 1341	(9.70 , 1.00) (0.02 , N/A , 1.8)	84.2 56.3	0.2106 35.1 35.1	0.0362	N/A			IR1,
NMeFOSE	(616.0 / 59.0) 3623	(10.58 , 1.00) (0.01 , N/A , 0.0)	35.0	N/A 0.0 0.0	0.0780	N/A			
NEIFOSE	(630.0 / 59.0) 391	(10.67 , 1.00) (0.01 , N/A , 0.0)	9.7	N/A 0.0 0.0	0.0604	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-PF3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) 3882 (441.0 / 337.0) 3410	(8.56 , 1.40) (N/A , -0.04 , -0.8)	15.2 20.9	0.8784 105.1 105.1	0.0543	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(295.0 / 201.0) N/A (295.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 237428	(3.68 , N/A) (N/A , -0.01 , N/A)	626.4	N/A	0.8783 [1.0000]	87.8% { 81.6% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 361379	(6.13 , N/A) (N/A , -0.02 , N/A)	496.8	N/A	0.9100 [1.0000]	91.0% { 90.2% }			
13C4_PFOA_IIS	(417.0 / 372.0) 374814	(7.87 , N/A) (N/A , -0.02 , N/A)	670.6	N/A	0.9382 [1.0000]	93.8% { 94.3% }			
13C5_PFNA_IIS	(468.0 / 423.0) 304663	(8.61 , N/A) (N/A , -0.01 , N/A)	485.6	N/A	0.9217 [1.0000]	92.2% { 83.8% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 269973	(9.29 , N/A) (N/A , -0.01 , N/A)	293.1	N/A	0.7561 [1.0000]	75.6% { 81.3% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 560720	(7.99 , N/A) (N/A , -0.02 , N/A)	869.2	N/A	0.8039 [1.0000]	80.4% { 75.4% }			
13C4_PFOS_IIS	(503.0 / 79.9) 661332	(9.44 , N/A) (N/A , -0.01 , N/A)	449.9	N/A	0.9591 [1.0000]	95.9% { 100.3% }			
13C4_PFBA_EIS	(217.0 / 172.0) 2178288	(3.68 , N/A) (N/A , -0.01 , N/A)	655.7	N/A	8.5375 [8.0000]	106.7% { 90.3% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1318486	(4.98 , N/A) (N/A , -0.02 , N/A)	639.0	N/A	3.9924 [4.0000]	99.8% { 86.8% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 830193	(6.12 , N/A) (N/A , -0.02 , N/A)	565.3	N/A	2.0654 [2.0000]	103.3% { 96.0% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 734215	(7.06 , N/A) (N/A , -0.02 , N/A)	506.9	N/A	2.0443 [2.0000]	102.2% { 88.3% }			
13C8_PFOA_EIS	(421.0 / 376.0) 864019	(7.87 , N/A) (N/A , -0.02 , N/A)	669.3	N/A	2.1037 [2.0000]	105.2% { 106.3% }			
13C9_PFNA_EIS	(472.0 / 427.0) 347869	(8.61 , N/A) (N/A , -0.02 , N/A)	511.1	N/A	1.0372 [1.0000]	103.7% { 90.7% }			
13C6_PFDA_EIS	(519.0 / 474.0) 413388	(9.29 , N/A) (N/A , -0.01 , N/A)	341.5	N/A	1.1705 [1.0000]	117.1% { 92.1% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 522316	(9.71 , N/A) (N/A , 0.00 , N/A)	467.3	N/A	1.2204 [1.0000]	122.0% { 86.2% }			

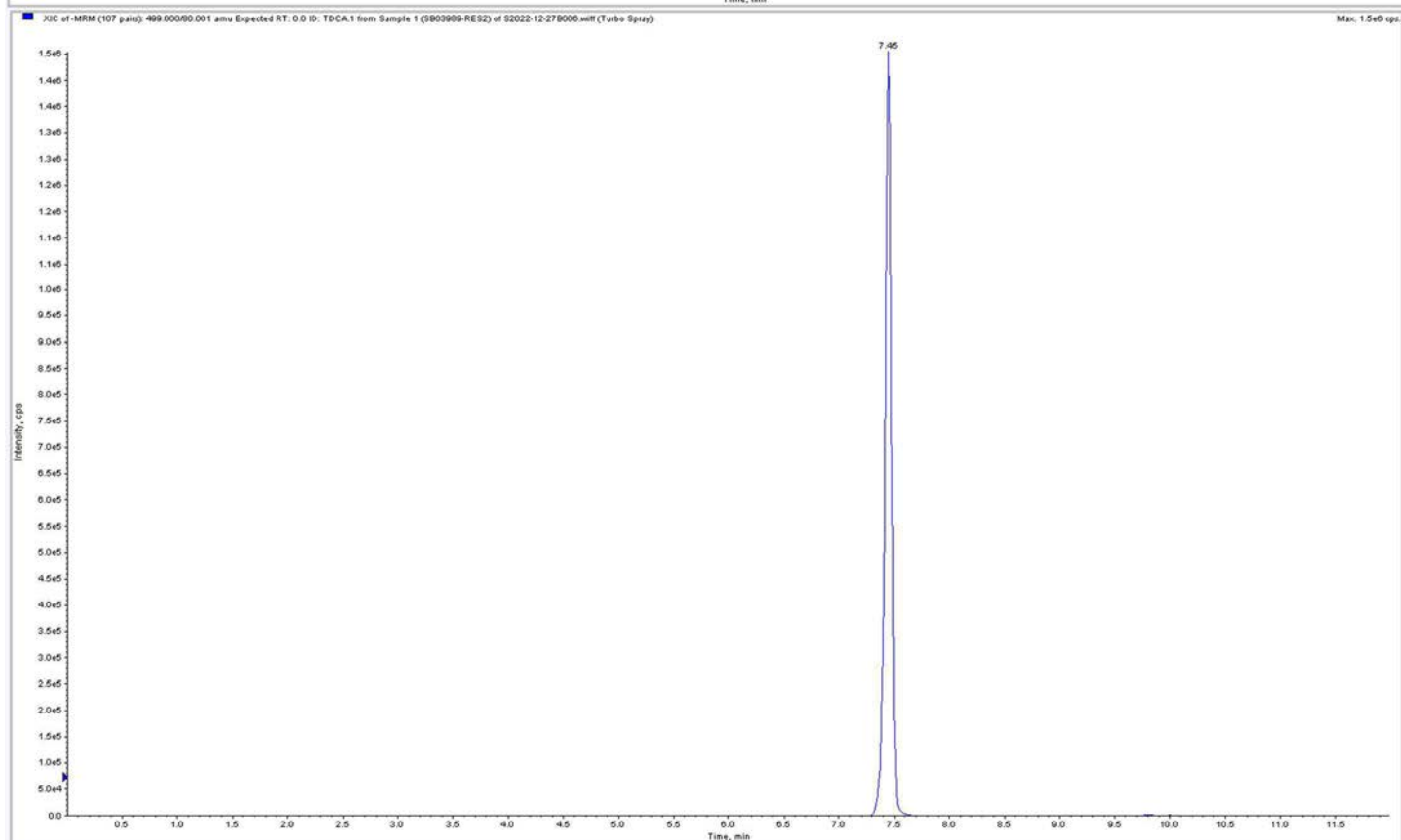
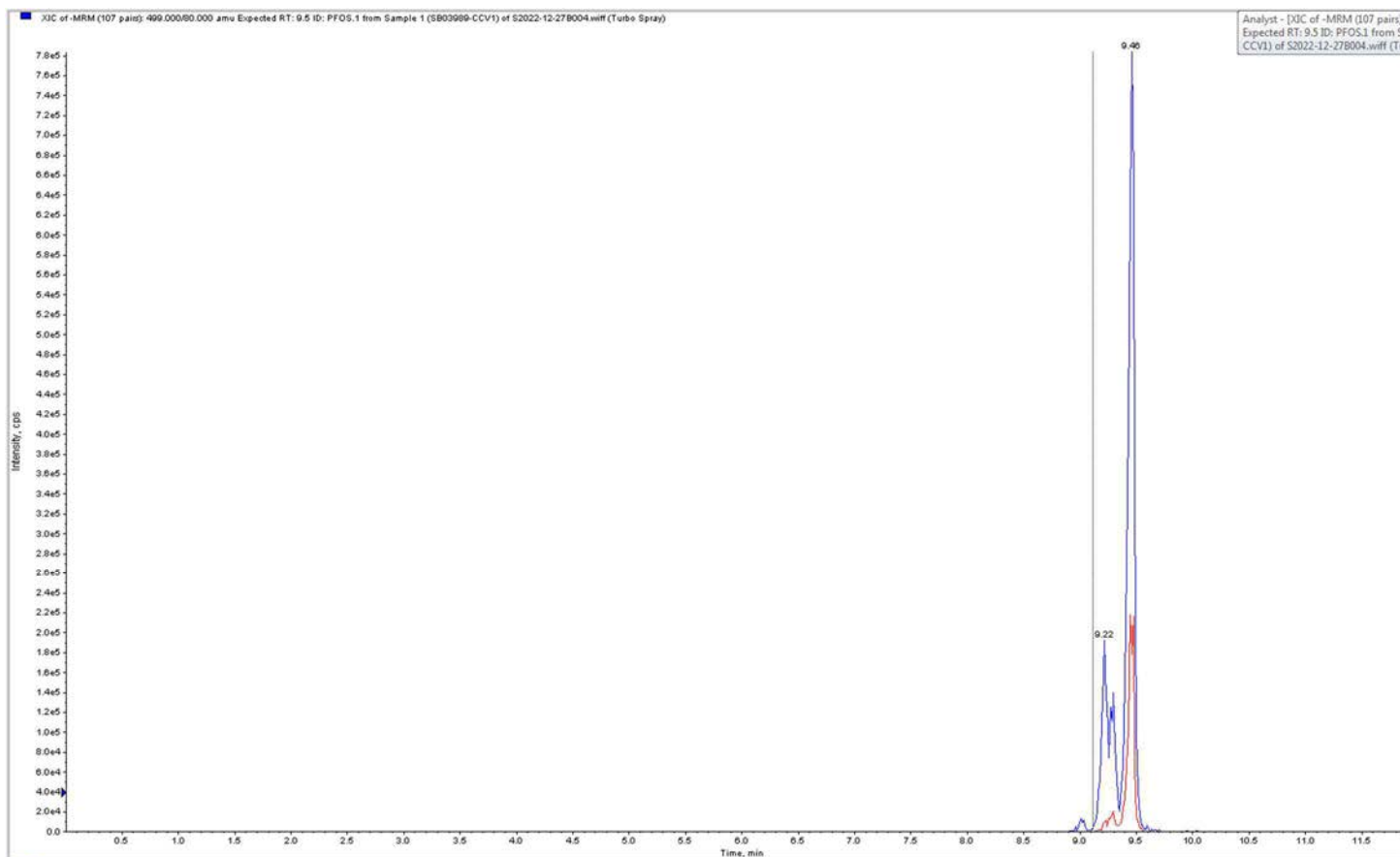
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 566455	(9.89 , N/A) (N/A , 0.00 , N/A)	295.8	N/A	1.2025 [1.0000]	120.2% { 83.0% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 464707	(10.12 , N/A) (N/A , 0.00 , N/A)	5773.7	N/A	1.4946 [1.0000]	149.5% { 105.5% }			
13C3_PFBs_EIS	(302.0 / 80.0) 2197962	(6.08 , N/A) (N/A , -0.02 , N/A)	529.2	N/A	2.3278 [2.0000]	116.4% { 87.3% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1140915	(7.99 , N/A) (N/A , -0.02 , N/A)	725.2	N/A	2.2764 [2.0000]	113.8% { 89.6% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1878974	(9.43 , N/A) (N/A , -0.01 , N/A)	532.9	N/A	2.1938 [2.0000]	109.7% { 115.1% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 525532	(5.79 , N/A) (N/A , -0.02 , N/A)	543.4	N/A	4.7263 [4.0000]	118.2% { 102.2% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 599185	(7.53 , N/A) (N/A , -0.02 , N/A)	564.2	N/A	4.3362 [4.0000]	108.4% { 100.2% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 616325	(8.95 , N/A) (N/A , -0.01 , N/A)	435.5	N/A	4.5241 [4.0000]	113.1% { 100.9% }			
13C8_PFOA_EIS	(506.0 / 78.0) 2231848	(10.17 , N/A) (N/A , 0.00 , N/A)	663.7	N/A	1.9599 [2.0000]	98.0% { 93.7% }			
D3_NMeFOA_EIS	(515.0 / 169.0) 470024	(10.60 , N/A) (N/A , 0.00 , N/A)	1002.2	N/A	2.1284 [2.0000]	106.4% { 103.2% }			
D5_NEtFOA_EIS	(531.0 / 169.0) 479184	(10.69 , N/A) (N/A , 0.00 , N/A)	815.8	N/A	2.4353 [2.0000]	121.8% { 117.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 920519	(9.49 , N/A) (N/A , 0.00 , N/A)	530.4	N/A	3.9288 [4.0000]	98.2% { 87.8% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 812004	(9.67 , N/A) (N/A , 0.00 , N/A)	385.1	N/A	4.0462 [4.0000]	101.2% { 88.9% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 822384	(10.56 , N/A) (N/A , 0.00 , N/A)	1088.1	N/A	23.2435 [20.0000]	116.2% { 111.7% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 341574	(10.66 , N/A) (N/A , 0.00 , N/A)	977.5	N/A	23.8725 [20.0000]	119.4% { 113.3% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1866505	(6.47 , N/A) (N/A , -0.02 , N/A)	693.7	N/A	8.3622 [8.0000]	104.5% { 95.1% }			

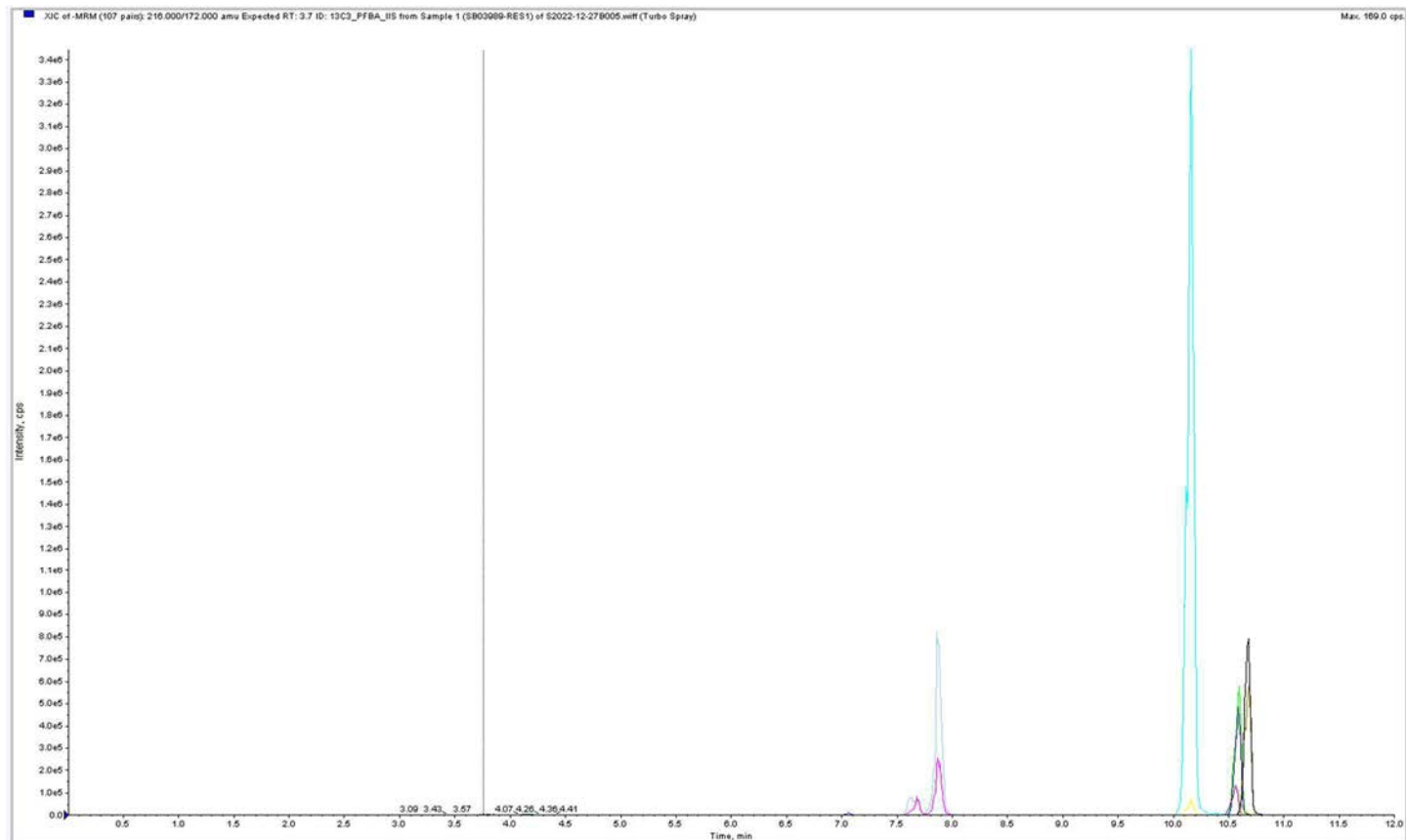
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BILE STANDARD CHECK S2022-12-27B/SB03989

TDCA = 7.45
PFOS = 9.00
TDCA-PFOS = 1.55 > 1.0 PASS



S2022-12-27B/SB03989 Column Resolution



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QUALITY CONTROL RAW DATA

ANALYSIS DATA SHEET

Blank

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Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	BBL0475-BLK1
Sampled:		File ID:	S2022-12-30A (32)
		Prepared:	12/27/22 13:57
		Analyzed:	12/30/22 22:56
Solids:		Preparation:	PFAS Leachates
		Dilution:	1
Batch:	BBL0475	Sequence:	SB04022
		Calibration:	2253011
Column:	1	Instrument:	Saphira

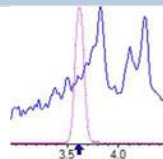
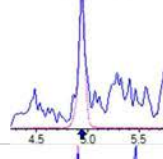
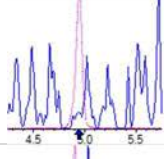
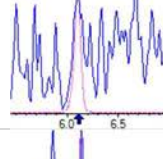
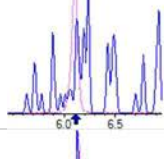
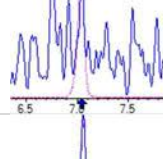
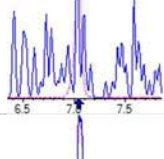
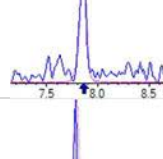
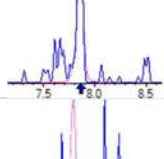
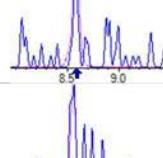
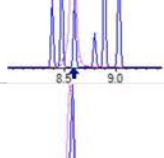
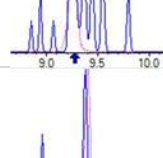
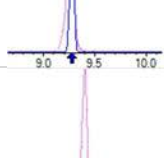
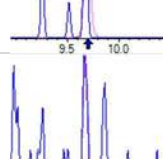
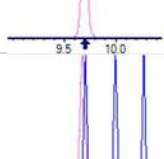
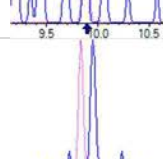
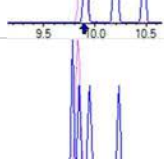
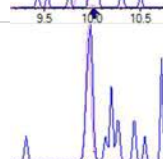
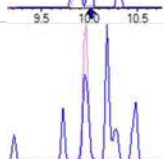
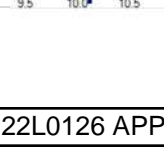
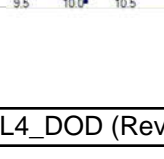
COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
PFBA	4.0 U	8.0	4.0	1.0	U
PFPEA	4.0 U	4.0	4.0	0.32	U
PFHXA	2.0 U	2.0	2.0	0.28	U
PFHPA	1.0 U	2.0	1.0	0.20	U
PFOA	1.0 U	2.0	1.0	0.75	U
PFNA	1.0 U	2.0	1.0	0.41	U
PFDA	1.0 U	2.0	1.0	0.50	U
PFUnA	1.0 U	2.0	1.0	0.80	U
PFDOA	1.0 U	2.0	1.0	0.55	U
PFTRDA	1.5 U	2.0	1.5	1.0	U
PFTEDA	1.0 U	2.0	1.0	1.0	U
PFBS	1.0 U	2.0	1.0	0.18	U
PFPEs	1.0 U	2.0	1.0	0.32	U
PFHXS	1.0 U	2.0	1.0	0.16	U
PFHPS	1.0 U	2.0	1.0	0.26	U
PFOS	1.0 U	2.0	1.0	0.32	U
PFNS	1.0 U	2.0	1.0	0.60	U
PFDS	1.0 U	2.0	1.0	0.75	U
PFDOS	1.0 U	2.0	1.0	0.60	U
4:2FTS	4.0 U	8.0	4.0	1.4	U
6:2FTS	4.0 U	8.0	4.0	1.6	U
8:2FTS	4.0 U	8.0	4.0	0.41	U
PFOSA	1.0 U	2.0	1.0	0.50	U
NMeFOSA	4.0 U	8.0	4.0	2.4	U
NEtFOSA	4.0 U	8.0	4.0	2.0	U
NMeFOSAA	1.0 U	2.0	1.0	0.55	U
NEtFOSAA	1.0 U	2.0	1.0	0.55	U
NMeFOSE	6.0 U	8.0	6.0	5.0	U
NEtFOSE	6.0 U	8.0	6.0	5.0	U
HFPO-DA	2.0 U	4.0	2.0	0.85	U

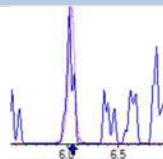
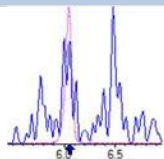
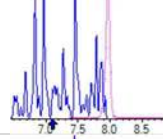
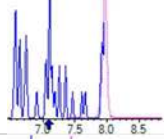
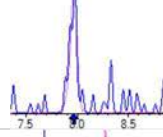
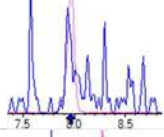
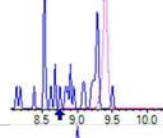
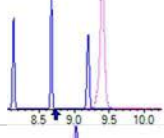
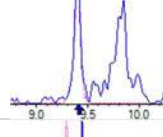
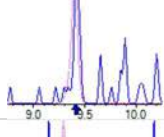
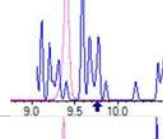
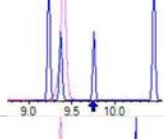
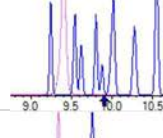
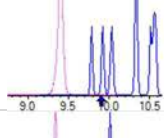
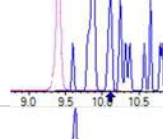
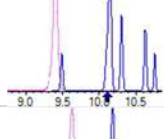
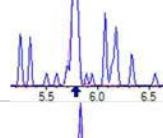
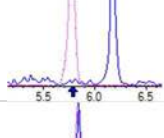
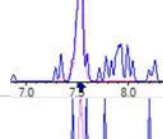
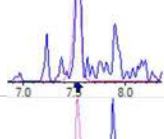
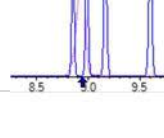
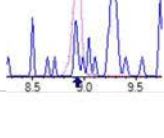
ANALYSIS DATA SHEET

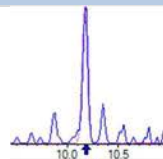
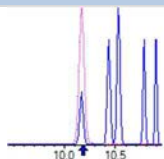
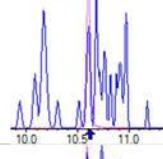
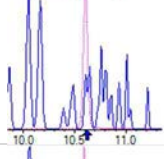
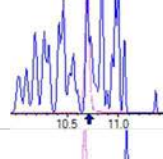
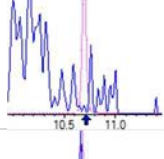
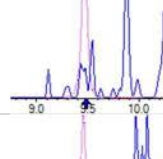
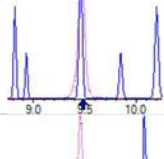
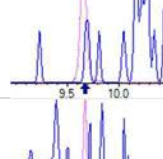
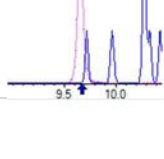
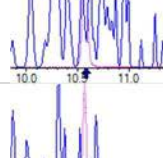
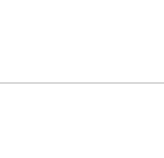
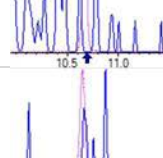

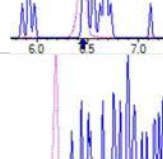
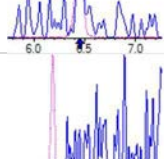
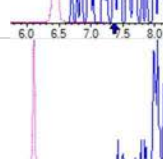
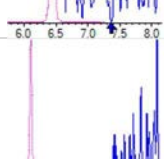
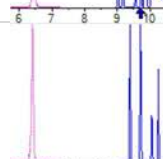
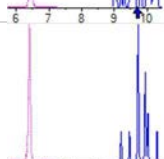
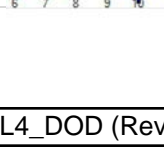
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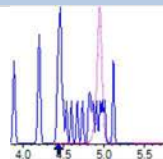
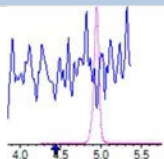
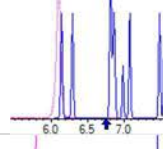
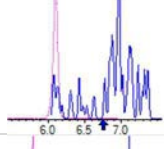
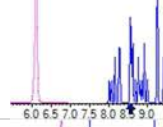
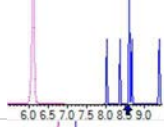
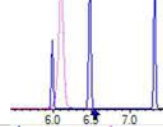
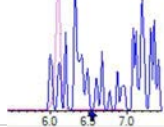
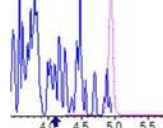
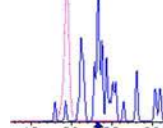
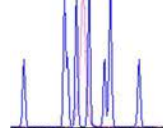
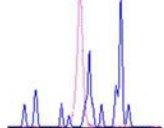
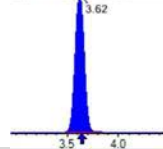
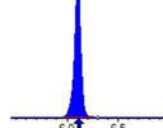
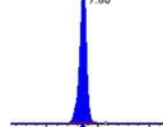
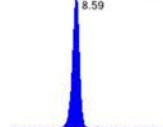
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		Prepared:	12/27/22 13:57
Solids:		Analyzed:	12/30/22 22:56
		Dilution:	1
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Column:	1	Sequence:	SB04022
		Calibration:	2253011
		Instrument:	Saphira

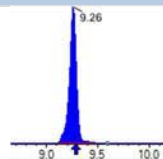
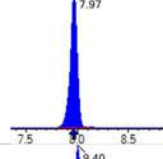
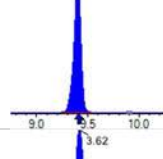
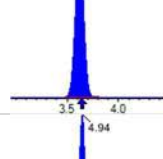
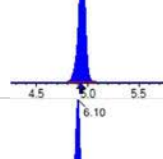
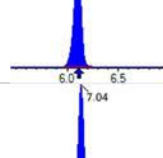
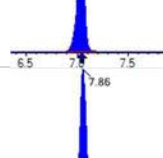
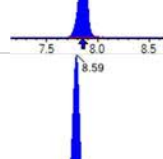
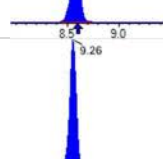
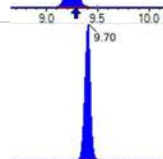

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
ADONA	2.0 U	4.0	2.0	0.60	U
PFEESA	2.0 U	4.0	2.0	0.55	U
PFMPA	2.0 U	4.0	2.0	0.27	U
PFMBA	2.0 U	4.0	2.0	0.46	U
NFDHA	2.0 U	4.0	2.0	1.5	U
9CL-PF3ONS	2.0 U	4.0	2.0	1.0	U
11CL-PF3OUDS	2.0 U	4.0	2.0	1.0	U
3:3FTCA	4.0 U	8.0	4.0	2.8	U
5:3FTCA	4.0 U	8.0	4.0	2.2	U
7:3FTCA	4.0 U	8.0	4.0	2.8	U

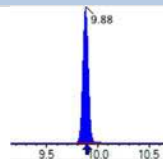
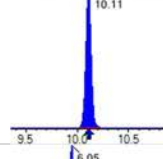
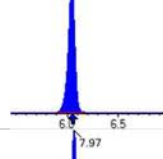
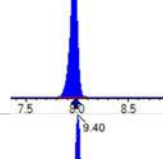
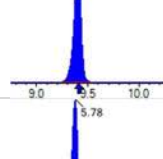
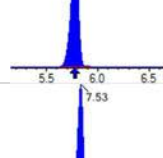
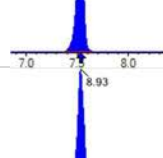
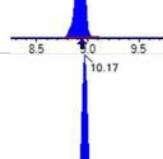
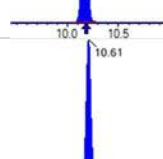
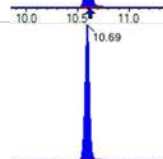
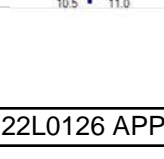
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeA	(263.0 / 219.0) N/A (263.0 / 69.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxA	(313.0 / 269.0) N/A (313.0 / 119.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpA	(363.0 / 319.0) N/A (363.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOA	(413.0 / 369.0) N/A (413.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNA	(463.0 / 419.0) N/A (463.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDA	(513.0 / 469.0) N/A (513.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFUnA	(563.0 / 519.0) N/A (563.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoA	(613.0 / 569.0) N/A (613.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTTrDA	(663.0 / 619.0) N/A (663.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFTeDA	(713.0 / 669.0) N/A (713.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

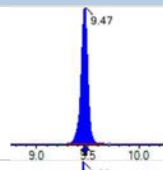




Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) N/A (299.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFPeS	(349.0 / 80.0) N/A (349.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHxS	(399.0 / 80.0) N/A (399.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFHpS	(449.0 / 80.0) N/A (449.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFOS	(499.0 / 80.0) N/A (499.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFNS	(549.0 / 80.0) N/A (549.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDS	(599.0 / 80.0) N/A (599.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFDoS	(699.0 / 80.0) N/A (699.0 / 99.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
4:2FTS	(327.0 / 307.0) N/A (327.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
6:2FTS	(427.0 / 407.0) N/A (427.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
8:2FTS	(527.0 / 507.0) N/A (527.0 / 81.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(512.0 / 219.0) N/A (512.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSA	(526.0 / 219.0) N/A (526.0 / 169.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSAA	(570.0 / 419.0) N/A (570.0 / 483.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSAA	(584.0 / 419.0) N/A (584.0 / 526.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSE	(616.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NEiFOSE	(630.0 / 59.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
HFPO-DA	(285.0 / 169.0) N/A (285.0 / 185.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
ADONA	(377.0 / 85.0) N/A (377.0 / 251.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
9CI-PF3ONS	(531.0 / 351.0) N/A (533.0 / 353.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
11CI-PF3OUDS	(631.0 / 451.0) N/A (633.0 / 453.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) N/A (241.0 / 117.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
5:3FTCA	(341.0 / 236.7) N/A (341.0 / 217.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
7:3FTCA	(441.0 / 317.0) N/A (441.0 / 337.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFEESA	(315.0 / 135.0) N/A (315.0 / 83.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
PFMPA	(229.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
PFMBA	(279.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A	N/A 0.0 0.0	0.0000	N/A			
NFDHA	(295.0 / 201.0) N/A (295.0 / 85.0) N/A	(N/A , N/A) (N/A , N/A , N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
13C3_PFBA_IIS	(216.0 / 172.0) 211846	(3.62 , N/A) (N/A , -0.01 , N/A)	567.0	N/A	0.9837 [1.0000]	98.4% { 104.8% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 369930	(6.10 , N/A) (N/A , 0.00 , N/A)	437.6	N/A	0.9745 [1.0000]	97.4% { 94.9% }			
13C4_PFOA_IIS	(417.0 / 372.0) 365316	(7.86 , N/A) (N/A , 0.00 , N/A)	589.9	N/A	1.0120 [1.0000]	101.2% { 95.2% }			
13C5_PFNA_IIS	(468.0 / 423.0) 335716	(8.59 , N/A) (N/A , -0.01 , N/A)	494.3	N/A	1.1416 [1.0000]	114.2% { 115.1% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 380797	(9.26 , N/A) (N/A , -0.01 , N/A)	277.8	N/A	1.1179 [1.0000]	111.8% { 109.3% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 576349	(7.97 , N/A) (N/A , 0.00 , N/A)	593.3	N/A	0.9525 [1.0000]	95.3% { 91.0% }			
13C4_PFOS_IIS	(503.0 / 79.9) 641253	(9.40 , N/A) (N/A , -0.01 , N/A)	333.1	N/A	0.9945 [1.0000]	99.4% { 100.9% }			
13C4_PFBA_EIS	(217.0 / 172.0) 3095523	(3.62 , N/A) (N/A , -0.01 , N/A)	771.5	N/A	14.5542 [16.0000]	91.0% { 199.1% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 2323234	(4.94 , N/A) (N/A , 0.01 , N/A)	652.3	N/A	8.3243 [8.0000]	104.1% { 189.4% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 1652119	(6.10 , N/A) (N/A , 0.00 , N/A)	543.8	N/A	4.3643 [4.0000]	109.1% { 205.3% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 1494892	(7.04 , N/A) (N/A , 0.00 , N/A)	579.4	N/A	4.5458 [4.0000]	113.6% { 192.9% }			
13C8_PFOA_EIS	(421.0 / 376.0) 1506389	(7.86 , N/A) (N/A , 0.00 , N/A)	596.8	N/A	4.0302 [4.0000]	100.8% { 204.6% }			
13C9_PFNA_EIS	(472.0 / 427.0) 687494	(8.59 , N/A) (N/A , -0.01 , N/A)	525.1	N/A	1.9709 [2.0000]	98.5% { 215.7% }			
13C6_PFDA_EIS	(519.0 / 474.0) 806136	(9.26 , N/A) (N/A , -0.01 , N/A)	462.7	N/A	1.7526 [2.0000]	87.6% { 211.0% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 1057602	(9.70 , N/A) (N/A , -0.01 , N/A)	332.7	N/A	1.8696 [2.0000]	93.5% { 195.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 1105996	(9.88 , N/A) (N/A , -0.01 , N/A)	805.7	N/A	1.9593 [2.0000]	98.0% { 191.2% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 704924	(10.11 , N/A) (N/A , -0.01 , N/A)	870.4	N/A	1.9708 [2.0000]	98.5% { 186.4% }			
13C3_PFBs_EIS	(302.0 / 80.0) 3934191	(6.05 , N/A) (N/A , 0.00 , N/A)	522.1	N/A	4.5102 [4.0000]	112.8% { 200.1% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1974910	(7.97 , N/A) (N/A , 0.00 , N/A)	684.9	N/A	4.1814 [4.0000]	104.5% { 199.6% }			
13C8_PFOS_EIS	(507.0 / 80.0) 3501595	(9.40 , N/A) (N/A , -0.01 , N/A)	568.8	N/A	4.5312 [4.0000]	113.3% { 228.0% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 1216193	(5.78 , N/A) (N/A , 0.00 , N/A)	535.7	N/A	12.3411 [8.0000]	154.3% { 244.4% }			S2,
13C2_6:2FTS_EIS	(429.0 / 81.0) 1412628	(7.53 , N/A) (N/A , 0.00 , N/A)	714.2	N/A	10.8337 [8.0000]	135.4% { 242.6% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 1349373	(8.93 , N/A) (N/A , 0.00 , N/A)	467.8	N/A	8.2096 [8.0000]	102.6% { 216.4% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 4456257	(10.17 , N/A) (N/A , -0.01 , N/A)	1335.6	N/A	4.9406 [4.0000]	123.5% { 234.1% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 505394	(10.61 , N/A) (N/A , -0.01 , N/A)	896.8	N/A	2.9631 [4.0000]	74.1% { 136.1% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 397050	(10.69 , N/A) (N/A , -0.01 , N/A)	1154.4	N/A	2.5415 [4.0000]	63.5% { 116.2% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 2020371	(9.47 , N/A) (N/A , -0.01 , N/A)	384.2	N/A	8.3094 [8.0000]	103.9% { 200.4% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 1788852	(9.66 , N/A) (N/A , -0.01 , N/A)	94.9	N/A	9.2532 [8.0000]	115.7% { 200.1% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 1572281	(10.57 , N/A) (N/A , -0.01 , N/A)	1019.7	N/A	42.1922 [40.0000]	105.5% { 158.0% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 806511	(10.67 , N/A) (N/A , -0.01 , N/A)	1735.4	N/A	46.9342 [40.0000]	117.3% { 171.6% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 3496777	(6.45 , N/A) (N/A , 0.00 , N/A)	628.9	N/A	16.5122 [16.0000]	103.2% { 200.1% }			

ANALYSIS DATA SHEET

LCS

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	BBL0475-BS1
		File ID:	S2022-12-27B (20)B
Sampled:		Prepared:	12/27/22 13:57
		Analyzed:	12/28/22 00:02
Solids:		Preparation:	PFAS Leachates
		Dilution:	1
Batch:	BBL0475	Sequence:	SB03989
		Calibration:	2253007
Column:	1	Instrument:	Saphira

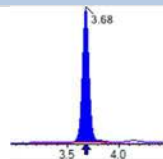
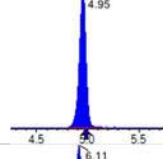
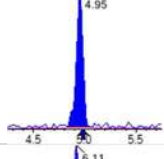
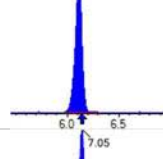
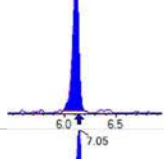
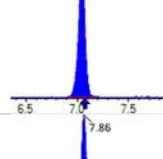
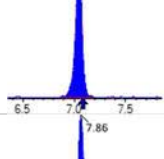
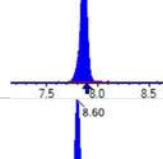
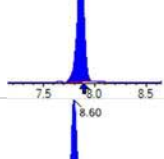
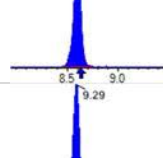
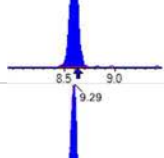
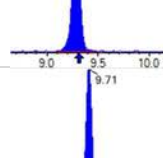
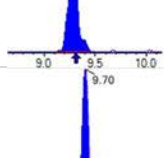
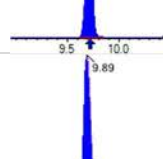
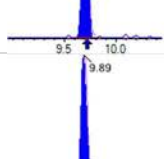
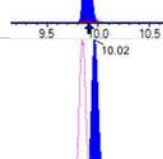
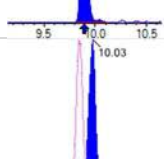
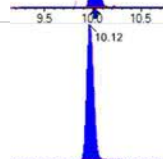
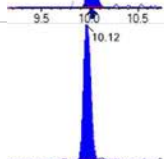
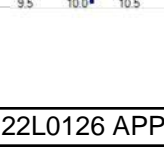
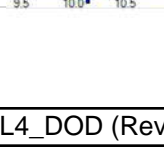
COMPOUND	CONC. (ng/L)	LOQ	DL	Q
PFBA	98.1	8.0	1.0	
PFPEA	46.2	4.0	0.32	
PFHXA	21.3	2.0	0.28	
PFHPA	24.6	2.0	0.20	
PFOA	26.9	2.0	0.75	
PFNA	26.9	2.0	0.41	
PFDA	22.8	2.0	0.50	IR2
PFUnA	24.7	2.0	0.80	
PFDOA	22.1	2.0	0.55	
PFTRDA	23.1	2.0	1.0	
PFTEDA	23.1	2.0	1.0	
PFBS	20.2	2.0	0.18	
PFPEs	25.7	2.0	0.32	
PFHXS	23.0	2.0	0.16	
PFHPS	20.8	2.0	0.26	
PFOS	18.9	2.0	0.32	
PFNS	21.8	2.0	0.60	
PFDS	21.4	2.0	0.75	
PFDOS	23.3	2.0	0.60	
4:2FTS	90.3	8.0	1.4	
6:2FTS	104	8.0	1.6	
8:2FTS	99.3	8.0	0.41	
PFOSA	24.0	2.0	0.50	
NMeFOSA	100	8.0	2.4	
NEtFOSA	98.7	8.0	2.0	
NMeFOSAA	20.2	2.0	0.55	
NEtFOSAA	22.2	2.0	0.55	
NMeFOSE	91.0	8.0	5.0	
NEtFOSE	92.3	8.0	5.0	
HFPO-DA	46.2	4.0	0.85	

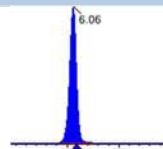
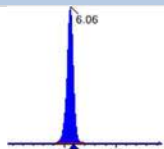
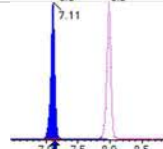
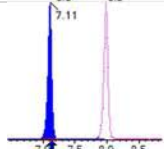
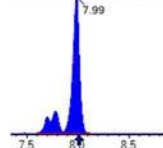
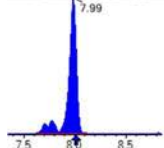
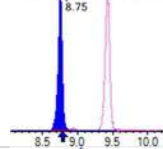
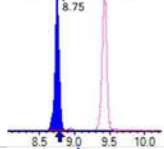
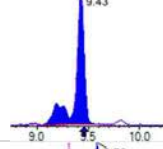
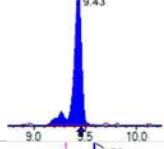
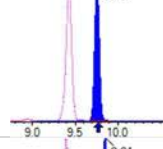
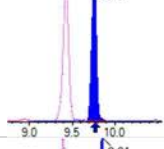
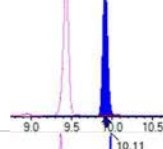
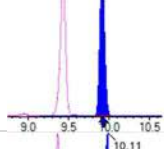
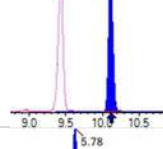
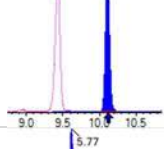
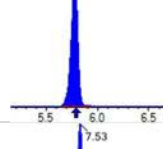
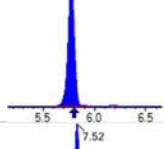
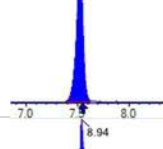
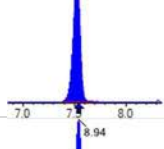
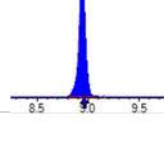
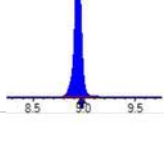
ANALYSIS DATA SHEET

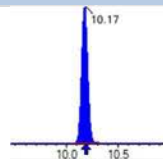
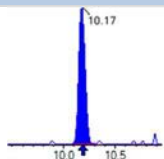
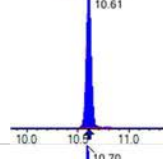
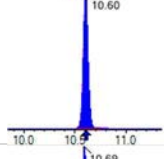
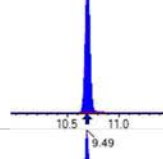
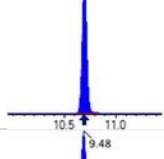
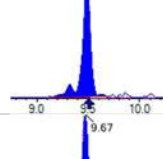
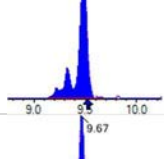
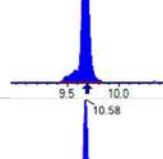
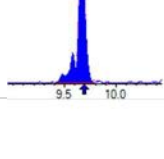
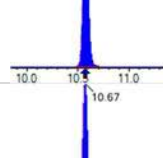
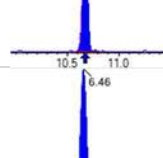
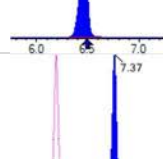
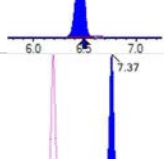
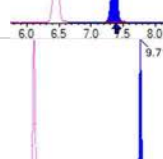
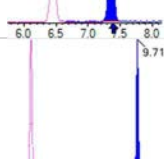
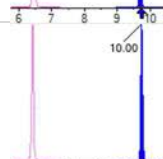
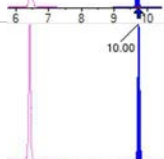

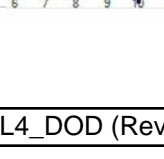
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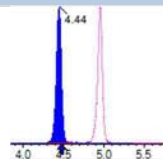
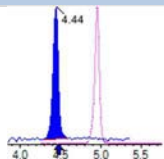
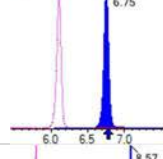
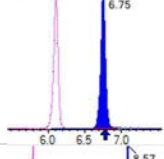
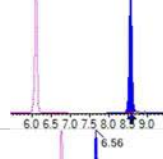
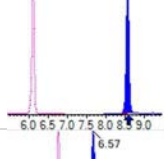
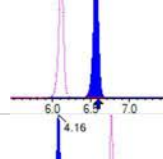
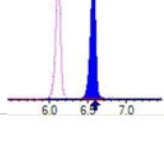
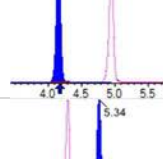
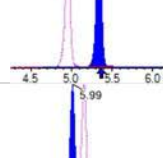
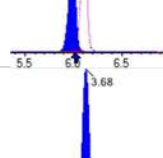
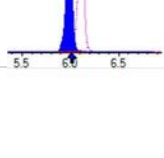
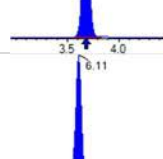
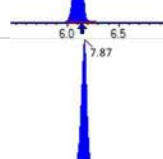
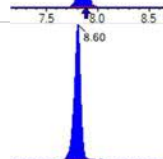

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	BBL0475-BS1
		File ID:	S2022-12-27B (20)B
Sampled:		Prepared:	12/27/22 13:57
		Analyzed:	12/28/22 00:02
Solids:		Preparation:	PFAS Leachates
		Dilution:	1
Batch:	BBL0475	Sequence:	SB03989
		Calibration:	2253007
Column:	1	Instrument:	Saphira

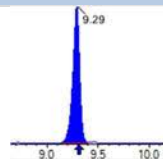
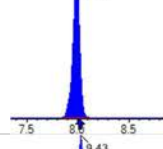
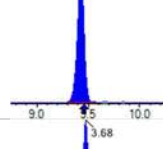
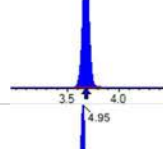
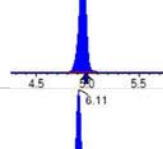
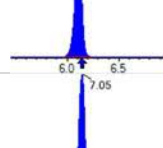
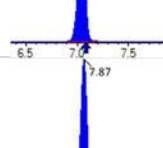
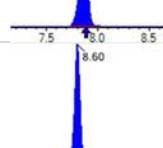
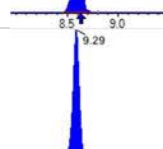
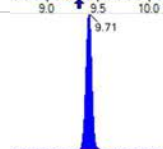
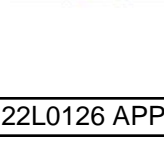
COMPOUND	CONC. (ng/L)	LOQ	DL	Q
ADONA	43.3	4.0	0.60	
PFEESA	36.5	4.0	0.55	
PFMPA	48.3	4.0	0.27	
PFMBA	49.1	4.0	0.46	
NFDHA	44.7	4.0	1.5	
9CL-PF3ONS	51.8	4.0	1.0	
11CL-PF3OUDS	48.5	4.0	1.0	
3:3FTCA	87.8	8.0	2.8	
5:3FTCA	81.8	8.0	2.2	
7:3FTCA	89.7	8.0	2.8	

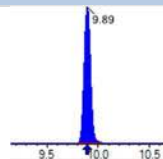
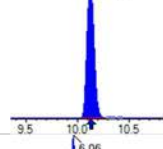
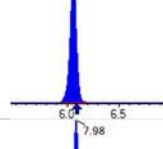
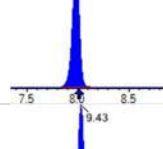
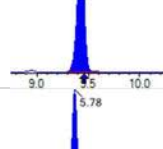
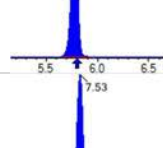
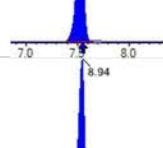
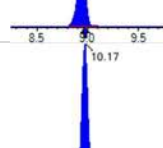
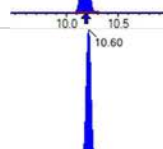
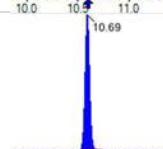
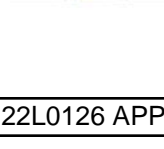
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 946948	(3.68 , 1.00) (0.00 , N/A , 0.0)	359.9	N/A 0.0 0.0	4.9055 [4.0000]	122.6%			
PFPeA	(263.0 / 219.0) 582107 (263.0 / 69.0) 6974	(4.95 , 1.00) (0.00 , N/A , 0.0)	529.2 105.1	0.0120 111.0 112.9	2.3087 [2.0000]	115.4%			
PFHxA	(313.0 / 269.0) 398833 (313.0 / 119.0) 30043	(6.11 , 1.00) (0.00 , N/A , -0.1)	393.9 167.1	0.0753 83.7 87.2	1.0672 [1.0000]	106.7%			
PFHpA	(363.0 / 319.0) 379320 (363.0 / 169.0) 101539	(7.05 , 1.00) (0.00 , N/A , 0.0)	390.0 266.7	0.2677 87.9 90.1	1.2281 [1.0000]	122.8%			
PFOA	(413.0 / 369.0) 437163 (413.0 / 169.0) 138957	(7.86 , 1.00) (0.00 , N/A , 0.0)	553.8 364.9	0.3179 94.6 101.5	1.3439 [1.0000]	134.4%			QC,
PFNA	(463.0 / 419.0) 370722 (463.0 / 169.0) 68231	(8.60 , 1.00) (0.00 , N/A , 0.2)	477.0 348.8	0.1840 88.0 87.3	1.3435 [1.0000]	134.3%			QC,
PFDA	(513.0 / 469.0) 405376 (513.0 / 169.0) 51219	(9.29 , 1.00) (0.00 , N/A , -0.3)	342.3 228.2	0.1263 141.8 160.4	1.1383 [1.0000]	113.8%			IR2,
PFUnA	(563.0 / 519.0) 563938 (563.0 / 169.0) 62236	(9.71 , 1.00) (0.00 , N/A , 0.4)	574.9 201.8	0.1104 104.7 96.2	1.2344 [1.0000]	123.4%			
PFDoA	(613.0 / 569.0) 598796 (613.0 / 169.0) 82645	(9.89 , 1.00) (-0.01 , N/A , 0.1)	654.8 181.5	0.1380 107.5 103.5	1.1031 [1.0000]	110.3%			
PFTTrDA	(663.0 / 619.0) 528921 (663.0 / 169.0) 90211	(10.02 , 1.01) (N/A , 0.00 , -0.3)	486.2 190.8	0.1706 74.7 81.4	1.1527 [1.0000]	115.3%			
PFTeDA	(713.0 / 669.0) 412088 (713.0 / 169.0) 65509	(10.12 , 1.00) (0.00 , N/A , 0.0)	554.8 316.3	0.1590 76.1 86.3	1.1543 [1.0000]	115.4%			

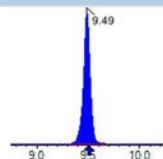
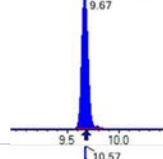
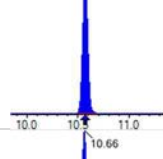
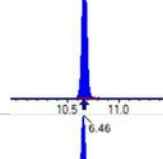
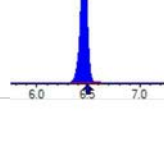
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 526236 (299.0 / 99.0) 356684	(6.06 , 1.00) (0.00 , N/A , -0.2)	500.5 431.7	0.6778 101.7 113.9	1.0079 [0.8847]	113.9%			
PFPeS	(349.0 / 80.0) 999847 (349.0 / 99.0) 355475	(7.11 , 0.89) (N/A , -0.02 , 0.0)	655.0 699.8	0.3555 96.6 93.7	1.2869 [0.9384]	137.1%			QC,
PFHxS	(399.0 / 80.0) 818214 (399.0 / 99.0) 278128	(7.99 , 1.00) (0.00 , N/A , 0.0)	531.4 549.8	0.3399 106.3 107.5	1.1508 [0.9110]	126.3%			
PFHpS	(449.0 / 80.0) 831907 (449.0 / 99.0) 213311	(8.75 , 0.93) (N/A , -0.03 , 0.2)	717.8 736.7	0.2564 96.4 94.2	1.0379 [0.9514]	109.1%			
PFOS	(499.0 / 80.0) 925032 (499.0 / 99.0) 227451	(9.43 , 1.00) (0.00 , N/A , -0.2)	230.2 310.4	0.2459 107.7 109.2	0.9462 [0.9275]	102.0%			
PFNS	(549.0 / 80.0) 1060986 (549.0 / 99.0) 268119	(9.76 , 1.03) (N/A , -0.01 , -0.1)	543.3 369.5	0.2527 107.6 107.2	1.0891 [0.9599]	113.5%			
PFDS	(599.0 / 80.0) 1274917 (599.0 / 99.0) 282393	(9.91 , 1.05) (N/A , -0.01 , 0.0)	843.2 570.7	0.2215 98.8 92.0	1.0703 [0.9631]	111.1%			
PFDoS	(699.0 / 80.0) 554866 (699.0 / 99.0) 131751	(10.11 , 1.07) (N/A , 0.00 , 0.2)	808.6 783.9	0.2374 116.0 117.7	1.1661 [0.9696]	120.3%			
4:2FTS	(327.0 / 307.0) 1524296 (327.0 / 81.0) 992742	(5.78 , 1.00) (0.00 , N/A , 0.3)	660.6 490.0	0.6513 100.9 108.3	4.5136 [3.7381]	120.7%			
6:2FTS	(427.0 / 407.0) 941891 (427.0 / 81.0) 729809	(7.53 , 1.00) (0.00 , N/A , 0.1)	35.3 441.4	0.7748 109.6 113.0	5.1924 [3.7962]	136.8%			QC,
8:2FTS	(527.0 / 507.0) 1027950 (527.0 / 81.0) 671715	(8.94 , 1.00) (0.00 , N/A , 0.1)	419.5 549.5	0.6535 93.0 87.9	4.9671 [3.8332]	129.6%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 985678 (498.0 / 478.0) 19487	(10.17 , 1.00) (0.00 , N/A , -0.1)	783.5 126.6	0.0198 124.0 78.7	1.1996 [1.0000]	120.0%			
NMeFOSA	(512.0 / 219.0) 440134 (512.0 / 169.0) 302173	(10.61 , 1.00) (0.00 , N/A , 0.1)	938.2 904.5	0.6865 100.9 102.6	5.0185 [4.0000]	125.5%			
NEIFOSA	(526.0 / 219.0) 427949 (526.0 / 169.0) 435015	(10.70 , 1.00) (0.00 , N/A , 0.1)	1100.1 738.7	1.0165 101.2 98.6	4.9335 [4.0000]	123.3%			
NMeFOSAA	(570.0 / 419.0) 201961 (570.0 / 483.0) 125079	(9.49 , 1.00) (0.00 , N/A , 0.2)	176.4 376.8	0.6193 124.1 119.8	1.0081 [1.0000]	100.8%			
NEIFOSAA	(584.0 / 419.0) 209349 (584.0 / 526.0) 119787	(9.67 , 1.00) (0.01 , N/A , 0.3)	648.6 228.1	0.5722 95.3 104.0	1.1076 [1.0000]	110.8%			
NMeFOSE	(616.0 / 59.0) 127086	(10.58 , 1.00) (0.00 , N/A , 0.0)	624.0	N/A 0.0 0.0	4.5498 [4.0000]	113.7%			
NEIFOSE	(630.0 / 59.0) 18919	(10.67 , 1.00) (0.01 , N/A , 0.0)	397.2	N/A 0.0 0.0	4.6126 [4.0000]	115.3%			
HFPO-DA	(285.0 / 169.0) 312027 (285.0 / 185.0) 793760	(6.46 , 1.00) (0.00 , N/A , 0.1)	503.8 437.9	2.5439 92.4 95.1	2.3099 [2.0000]	115.5%			
ADONA	(377.0 / 85.0) 1252622 (377.0 / 251.0) 166126	(7.37 , 1.14) (N/A , -0.03 , -0.1)	610.7 308.2	0.1326 115.3 120.1	2.1655 [1.8854]	114.9%			
9CI-PF3ONS	(531.0 / 351.0) 3932331 (533.0 / 353.0) 1118663	(9.71 , 1.50) (N/A , -0.01 , 0.0)	929.4 753.5	0.2845 88.9 90.6	2.5901 [1.8665]	138.8%			QC,
11CI-PF3OUDS	(631.0 / 451.0) 1922863 (633.0 / 453.0) 573736	(10.00 , 1.55) (N/A , -0.01 , -0.1)	882.3 1057.1	0.2984 101.9 83.8	2.4229 [1.8864]	128.4%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 38754 (241.0 / 117.0) 52576	(4.44 , 0.90) (N/A , -0.03 , 0.1)	451.4 163.4	1.3567 99.3 101.3	4.3923 [4.0000]	109.8%			
5:3FTCA	(341.0 / 236.7) 234513 (341.0 / 217.0) 388394	(6.75 , 1.11) (N/A , -0.02 , 0.1)	432.2 418.7	1.6562 99.6 102.7	4.0910 [4.0000]	102.3%			
7:3FTCA	(441.0 / 317.0) 316858 (441.0 / 337.0) 281547	(8.57 , 1.40) (N/A , -0.03 , -0.1)	422.3 415.6	0.8886 106.3 103.4	4.4869 [4.0000]	112.2%			
PFEESA	(315.0 / 135.0) 680229 (315.0 / 83.0) 200979	(6.56 , 1.07) (N/A , -0.03 , -0.2)	658.3 470.0	0.2955 95.9 95.6	1.8274 [1.7849]	102.4%			
PFMPA	(229.0 / 85.0) 184903	(4.16 , 0.84) (N/A , -0.02 , 0.0)	903.3	N/A 0.0 0.0	2.4165 [2.0000]	120.8%			
PFMBA	(279.0 / 85.0) 491695	(5.34 , 1.08) (N/A , -0.03 , 0.0)	634.7	N/A 0.0 0.0	2.4547 [2.0000]	122.7%			
NFDHA	(295.0 / 201.0) 399745 (295.0 / 85.0) 367480	(5.99 , 0.98) (N/A , -0.03 , 0.1)	650.3 588.6	0.9193 105.8 102.4	2.2370 [2.0000]	111.9%			
13C3_PFBA_IIS	(216.0 / 172.0) 273960	(3.68 , N/A) (N/A , 0.00 , N/A)	667.6	N/A	1.0135 [1.0000]	101.3% { 95.3% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 417633	(6.11 , N/A) (N/A , -0.03 , N/A)	489.1	N/A	1.0516 [1.0000]	105.2% { 101.9% }			
13C4_PFOA_IIS	(417.0 / 372.0) 442710	(7.87 , N/A) (N/A , -0.02 , N/A)	689.0	N/A	1.1082 [1.0000]	110.8% { 113.1% }			
13C5_PFNA_IIS	(468.0 / 423.0) 364777	(8.60 , N/A) (N/A , -0.03 , N/A)	441.2	N/A	1.1035 [1.0000]	110.4% { 106.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 450593	(9.29, N/A) (N/A, -0.02, N/A)	353.3	N/A	1.2619 [1.0000]	126.2% { 124.3% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 681241	(7.99, N/A) (N/A, -0.02, N/A)	815.2	N/A	0.9768 [1.0000]	97.7% { 103.6% }			
13C4_PFOS_IIS	(503.0 / 79.9) 768643	(9.43, N/A) (N/A, -0.03, N/A)	368.7	N/A	1.1147 [1.0000]	111.5% { 113.8% }			
13C4_PFBA_EIS	(217.0 / 172.0) 1841572	(3.68, N/A) (N/A, 0.00, N/A)	806.2	N/A	6.2553 [8.0000]	78.2% { 78.0% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1180408	(4.95, N/A) (N/A, -0.02, N/A)	615.5	N/A	3.0928 [4.0000]	77.3% { 83.0% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 820460	(6.11, N/A) (N/A, -0.03, N/A)	607.3	N/A	1.7663 [2.0000]	88.3% { 86.6% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 645003	(7.05, N/A) (N/A, -0.03, N/A)	557.6	N/A	1.5540 [2.0000]	77.7% { 80.5% }			
13C8_PFOA_EIS	(421.0 / 376.0) 700352	(7.87, N/A) (N/A, -0.02, N/A)	609.5	N/A	1.4437 [2.0000]	72.2% { 85.6% }			
13C9_PFNA_EIS	(472.0 / 427.0) 304713	(8.60, N/A) (N/A, -0.03, N/A)	500.2	N/A	0.7588 [1.0000]	75.9% { 81.3% }			
13C6_PFDA_EIS	(519.0 / 474.0) 399879	(9.29, N/A) (N/A, -0.02, N/A)	408.6	N/A	0.6784 [1.0000]	67.8% { 94.7% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 576920	(9.71, N/A) (N/A, -0.01, N/A)	861.3	N/A	0.8076 [1.0000]	80.8% { 90.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 633390	(9.89 , N/A) (N/A , -0.01 , N/A)	692.7	N/A	0.8056 [1.0000]	80.6% { 100.4% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 393062	(10.12 , N/A) (N/A , 0.00 , N/A)	1481.3	N/A	0.7574 [1.0000]	75.7% { 88.8% }			
13C3_PFBs_EIS	(302.0 / 80.0) 1872142	(6.06 , N/A) (N/A , -0.03 , N/A)	659.3	N/A	1.6320 [2.0000]	81.6% { 86.9% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 925134	(7.98 , N/A) (N/A , -0.03 , N/A)	669.2	N/A	1.5193 [2.0000]	76.0% { 82.1% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1685189	(9.43 , N/A) (N/A , -0.03 , N/A)	361.2	N/A	1.6929 [2.0000]	84.6% { 91.3% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 473491	(5.78 , N/A) (N/A , -0.02 , N/A)	686.2	N/A	3.5049 [4.0000]	87.6% { 88.5% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 530138	(7.53 , N/A) (N/A , -0.02 , N/A)	638.7	N/A	3.1578 [4.0000]	78.9% { 78.0% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 614429	(8.94 , N/A) (N/A , -0.03 , N/A)	438.1	N/A	3.7123 [4.0000]	92.8% { 84.9% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 1712198	(10.17 , N/A) (N/A , 0.00 , N/A)	680.5	N/A	1.2937 [2.0000]	64.7% { 68.1% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 201638	(10.60 , N/A) (N/A , 0.00 , N/A)	458.0	N/A	0.7856 [2.0000]	39.3% { 43.7% }			
D5_NEtFOsa_EIS	(531.0 / 169.0) 188752	(10.69 , N/A) (N/A , 0.00 , N/A)	716.6	N/A	0.8253 [2.0000]	41.3% { 38.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 965033	(9.49 , N/A) (N/A , -0.02 , N/A)	357.9	N/A	3.5437 [4.0000]	88.6% { 96.7% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 871821	(9.67 , N/A) (N/A , -0.02 , N/A)	750.9	N/A	3.7378 [4.0000]	93.4% { 120.6% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 494799	(10.57 , N/A) (N/A , 0.00 , N/A)	1079.9	N/A	12.0324 [20.0000]	60.2% { 51.5% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 216339	(10.66 , N/A) (N/A , 0.00 , N/A)	1205.2	N/A	13.0089 [20.0000]	65.0% { 51.7% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1760589	(6.46 , N/A) (N/A , -0.03 , N/A)	760.8	N/A	6.8252 [8.0000]	85.3% { 84.9% }			

ANALYSIS DATA SHEET

MRL Check

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	BBL0475-MRL1
		File ID:	S2022-12-27B (21)B
Sampled:		Prepared:	12/27/22 13:57
		Analyzed:	12/28/22 00:15
Solids:		Preparation:	PFAS Leachates
		Dilution:	1
Batch:	BBL0475	Sequence:	SB03989
		Calibration:	2253007
Column:	1	Instrument:	Saphira

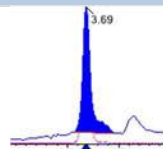
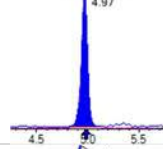
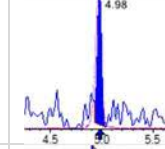
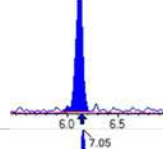
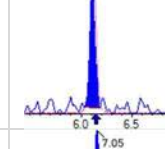
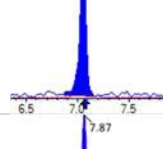
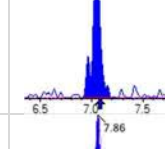
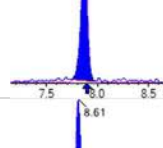
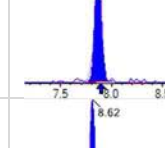
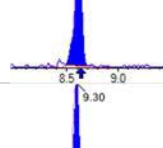
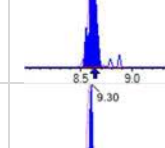
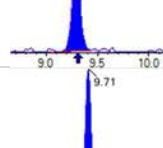
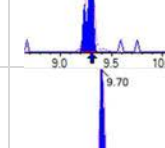
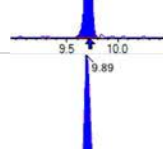
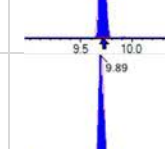
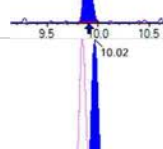
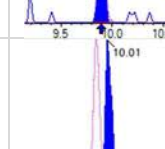
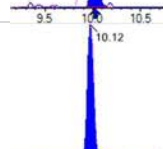
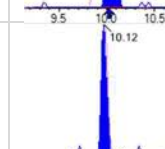
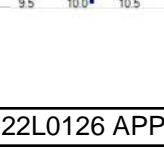
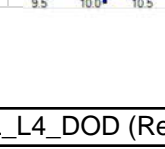
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PFBA	11.7	8.0	1.0	
PFPEA	4.91	4.0	0.32	
PFHXA	2.47	2.0	0.28	
PFHPA	2.86	2.0	0.20	
PFOA	2.74	2.0	0.75	
PFNA	2.06	2.0	0.41	
PFDA	2.84	2.0	0.50	
PFUnA	2.69	2.0	0.80	
PFDOA	2.48	2.0	0.55	
PFTRDA	2.30	2.0	1.0	IR2
PFTEDA	2.42	2.0	1.0	
PFBS	2.18	2.0	0.18	
PFPEs	2.43	2.0	0.32	
PFHXS	2.13	2.0	0.16	
PFHPS	2.06	2.0	0.26	
PFOS	2.35	2.0	0.32	
PFNS	2.16	2.0	0.60	
PFDS	2.05	2.0	0.75	
PFDOS	2.68	2.0	0.60	
4:2FTS	9.70	8.0	1.4	
6:2FTS	8.72	8.0	1.6	
8:2FTS	8.76	8.0	0.41	
PFOSA	2.33	2.0	0.50	
NMeFOSA	9.60	8.0	2.4	
NEtFOSA	9.81	8.0	2.0	
NMeFOSAA	2.87	2.0	0.55	
NEtFOSAA	2.08	2.0	0.55	
NMeFOSE	8.58	8.0	5.0	
NEtFOSE	9.35	8.0	5.0	
HFPO-DA	5.77	4.0	0.85	

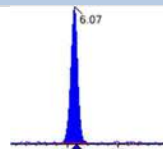
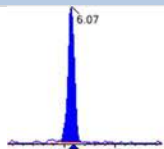
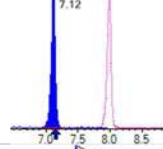
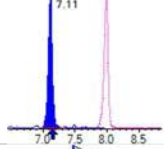
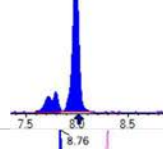
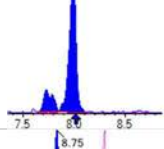
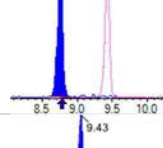
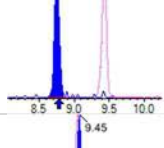
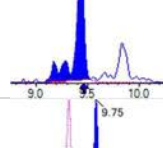
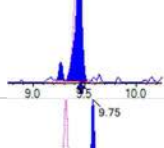
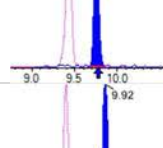
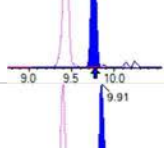
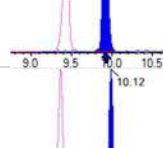
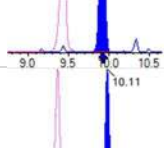
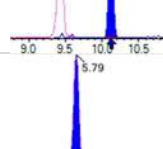
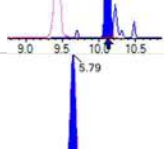
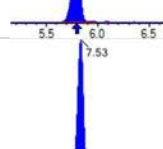
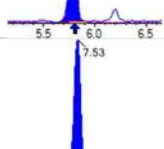
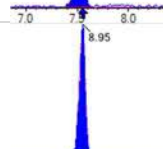
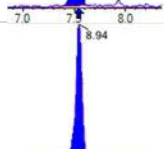

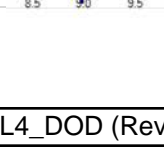
ANALYSIS DATA SHEET

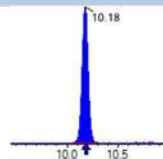
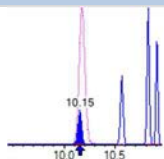
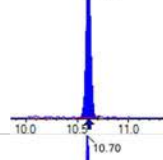
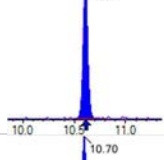
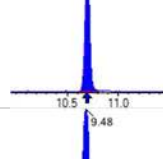
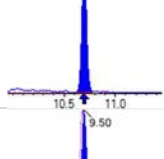
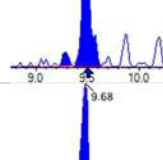
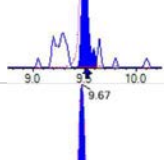
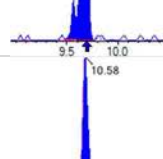
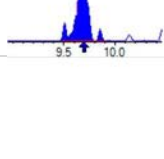
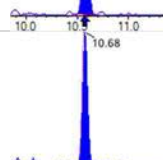
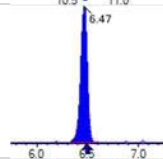
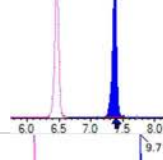
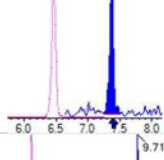
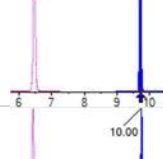
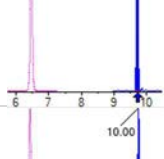
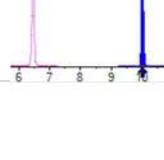
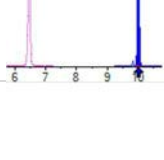
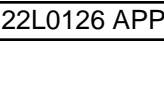
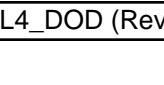
MRL Check

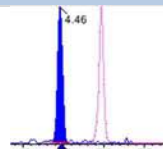
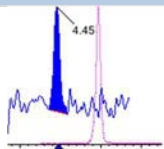
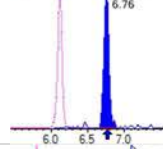
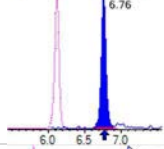
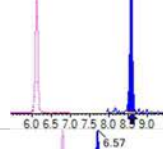
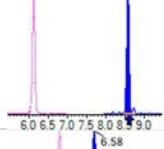
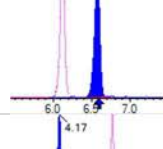
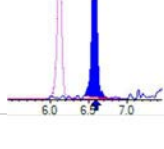
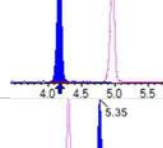
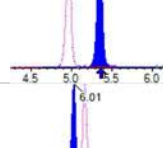
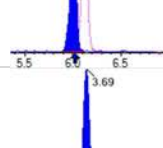
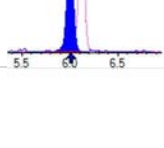
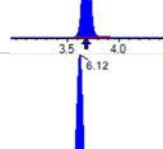
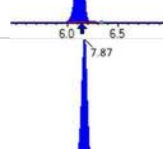
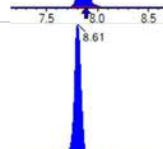

Laboratory:	APPL, LLC	Work Order:	22L0126
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Solid	Laboratory ID:	BBL0475-MRL1
		File ID:	S2022-12-27B (21)B
Sampled:		Prepared:	12/27/22 13:57
		Analyzed:	12/28/22 00:15
Solids:		Preparation:	PFAS Leachates
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Batch:	BBL0475	Sequence:	SB03989
		Calibration:	2253007
Column:	1	Instrument:	Saphira

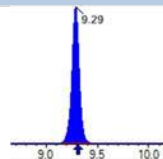
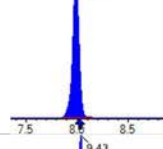
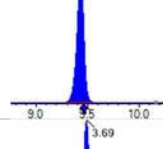
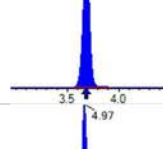
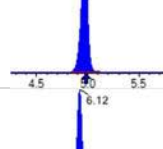
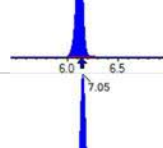
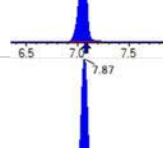
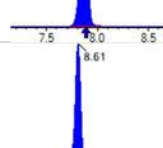
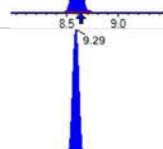
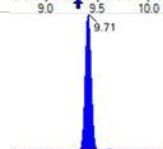
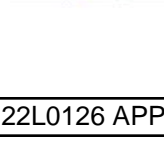
COMPOUND	CONC. (ng/L)	LOQ	DL	Q
ADONA	4.38	4.0	0.60	
PFEESA	3.83	4.0	0.55	J
PFMPA	4.47	4.0	0.27	
PFMBA	4.69	4.0	0.46	
NFDHA	4.69	4.0	1.5	
9CL-PF3ONS	4.60	4.0	1.0	
11CL-PF3OUDS	3.63	4.0	1.0	J
3:3FTCA	9.03	8.0	2.8	
5:3FTCA	10.5	8.0	2.2	
7:3FTCA	9.34	8.0	2.8	

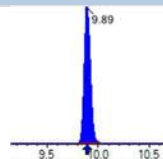
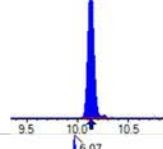
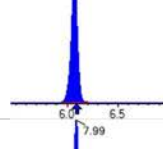
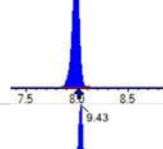
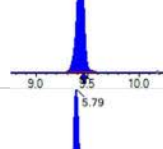
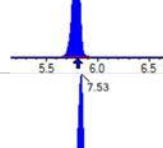
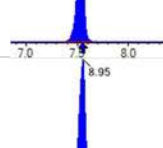
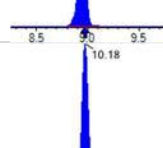
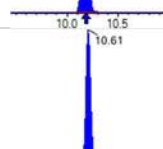
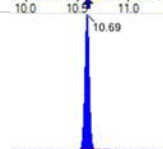
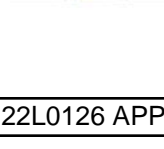
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(213.0 / 169.0) 124062	(3.69 , 1.00) (0.00 , N/A , 0.0)	114.9	N/A 0.0 0.0	0.5861 [0.4000]	146.5%			QC,
PFPeA	(263.0 / 219.0) 65810 (263.0 / 69.0) 783	(4.97 , 1.00) (0.00 , N/A , -0.5)	191.3 21.0	0.0119 110.2 112.1	0.2454 [0.2000]	122.7%			
PFHxA	(313.0 / 269.0) 46602 (313.0 / 119.0) 3955	(6.12 , 1.00) (0.00 , N/A , 0.7)	108.2 41.7	0.0849 94.3 98.3	0.1236 [0.1000]	123.6%			
PFHpA	(363.0 / 319.0) 50417 (363.0 / 169.0) 15791	(7.05 , 1.00) (0.00 , N/A , 0.2)	111.3 286.0	0.3132 102.9 105.4	0.1428 [0.1000]	142.8%			QC,
PFOA	(413.0 / 369.0) 50196 (413.0 / 169.0) 17182	(7.87 , 1.00) (0.00 , N/A , 0.2)	127.6 172.9	0.3423 101.9 109.3	0.1369 [0.1000]	136.9%			QC,
PFNA	(463.0 / 419.0) 33188 (463.0 / 169.0) 7460	(8.61 , 1.00) (0.00 , N/A , -0.2)	144.2 146.4	0.2248 107.5 106.6	0.1032 [0.1000]	103.2%			
PFDA	(513.0 / 469.0) 51314 (513.0 / 169.0) 4963	(9.30 , 1.00) (0.01 , N/A , -0.2)	112.1 121.0	0.0967 108.5 122.8	0.1422 [0.1000]	142.2%			QC,
PFUnA	(563.0 / 519.0) 60865 (563.0 / 169.0) 6156	(9.71 , 1.00) (0.00 , N/A , 0.2)	234.2 337.1	0.1011 96.0 88.2	0.1343 [0.1000]	134.3%			QC,
PFDoA	(613.0 / 569.0) 63913 (613.0 / 169.0) 6331	(9.89 , 1.00) (0.00 , N/A , 0.2)	174.9 48.0	0.0991 77.2 74.3	0.1242 [0.1000]	124.2%			
PFTTrDA	(663.0 / 619.0) 50030 (663.0 / 169.0) 16033	(10.02 , 1.01) (N/A , 0.00 , 0.4)	145.5 132.3	0.3205 140.4 152.9	0.1150 [0.1000]	115.0%			IR2,
PFTeDA	(713.0 / 669.0) 50572 (713.0 / 169.0) 8964	(10.12 , 1.00) (-0.01 , N/A , 0.3)	137.4 65.4	0.1773 84.9 96.2	0.1211 [0.1000]	121.1%			

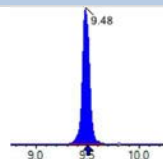
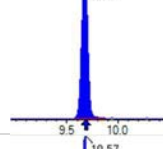
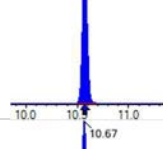
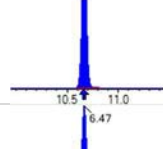
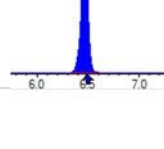
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(299.0 / 80.0) 63648 (299.0 / 99.0) 37431	(6.07 , 1.00) (0.00 , N/A , 0.0)	248.4 167.1	0.5881 88.3 98.8	0.1089 [0.0885]	123.1%			
PFPeS	(349.0 / 80.0) 112121 (349.0 / 99.0) 36511	(7.12 , 0.89) (N/A , -0.02 , 0.1)	315.5 211.9	0.3256 88.5 85.8	0.1213 [0.0938]	129.2%			
PFHxS	(399.0 / 80.0) 90197 (399.0 / 99.0) 33712	(7.99 , 1.00) (0.00 , N/A , -0.1)	301.4 207.5	0.3738 116.9 118.2	0.1066 [0.0911]	117.0%			
PFHpS	(449.0 / 80.0) 80554 (449.0 / 99.0) 24326	(8.76 , 0.93) (N/A , -0.02 , 0.5)	171.6 120.9	0.3020 113.6 111.0	0.1030 [0.0951]	108.2%			
PFOS	(499.0 / 80.0) 112183 (499.0 / 99.0) 28788	(9.43 , 1.00) (0.00 , N/A , -0.8)	68.9 15.8	0.2566 112.4 114.0	0.1176 [0.0927]	126.7%			
PFNS	(549.0 / 80.0) 102919 (549.0 / 99.0) 25965	(9.75 , 1.03) (N/A , -0.02 , 0.0)	178.2 152.5	0.2523 107.4 107.1	0.1082 [0.0960]	112.8%			
PFDS	(599.0 / 80.0) 118999 (599.0 / 99.0) 26400	(9.92 , 1.05) (N/A , 0.00 , 0.5)	355.9 135.3	0.2219 99.0 92.2	0.1023 [0.0963]	106.3%			
PFDoS	(699.0 / 80.0) 62178 (699.0 / 99.0) 9000	(10.12 , 1.07) (N/A , 0.01 , 0.6)	296.1 72.9	0.1447 70.7 71.8	0.1339 [0.0970]	138.1%			QC,
4:2FTS	(327.0 / 307.0) 158800 (327.0 / 81.0) 100028	(5.79 , 1.00) (0.00 , N/A , 0.2)	452.8 218.3	0.6299 97.6 104.7	0.4850 [0.3738]	129.8%			
6:2FTS	(427.0 / 407.0) 98705 (427.0 / 81.0) 72974	(7.53 , 1.00) (0.00 , N/A , 0.1)	195.0 198.6	0.7393 104.6 107.8	0.4361 [0.3796]	114.9%			
8:2FTS	(527.0 / 507.0) 92944 (527.0 / 81.0) 65874	(8.95 , 1.00) (0.00 , N/A , 0.4)	443.3 204.5	0.7088 100.9 95.4	0.4381 [0.3833]	114.3%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 96351 (498.0 / 478.0) 274	(10.18 , 1.00) (0.00 , N/A , 1.3)	262.0 17.5	0.0028 17.8 11.3	0.1166 [0.1000]	116.6%			
NMeFOSA	(512.0 / 219.0) 41659 (512.0 / 169.0) 32444	(10.61 , 1.00) (0.00 , N/A , -0.1)	307.2 309.9	0.7788 114.5 116.3	0.4800 [0.4000]	120.0%			
NEIFOSA	(526.0 / 219.0) 44282 (526.0 / 169.0) 46507	(10.70 , 1.00) (0.00 , N/A , 0.1)	445.8 259.5	1.0502 104.6 101.9	0.4903 [0.4000]	122.6%			
NMeFOSAA	(570.0 / 419.0) 27510 (570.0 / 483.0) 7534	(9.48 , 1.00) (0.00 , N/A , -0.8)	88.7 108.1	0.2739 54.9 53.0	0.1436 [0.1000]	143.6%			QC, MI5 DG 2022-12-28
NEIFOSAA	(584.0 / 419.0) 19730 (584.0 / 526.0) 14784	(9.68 , 1.00) (0.00 , N/A , 0.0)	174.6 1808.2	0.7493 124.7 136.2	0.1042 [0.1000]	104.2%			
NMeFOSE	(616.0 / 59.0) 12028	(10.58 , 1.00) (0.01 , N/A , 0.0)	169.0	N/A 0.0 0.0	0.4290 [0.4000]	107.2%			
NEIFOSE	(630.0 / 59.0) 1957	(10.68 , 1.00) (0.01 , N/A , 0.0)	81.8	N/A 0.0 0.0	0.4677 [0.4000]	116.9%			
HFPO-DA	(285.0 / 169.0) 42028 (285.0 / 185.0) 86792	(6.47 , 1.00) (0.00 , N/A , 0.0)	440.5 339.8	2.0651 75.0 77.2	0.2884 [0.2000]	144.2%			QC,
ADONA	(377.0 / 85.0) 136659 (377.0 / 251.0) 18791	(7.37 , 1.14) (N/A , -0.02 , 0.0)	450.2 68.7	0.1375 119.5 124.6	0.2190 [0.1885]	116.2%			
9CI-PF3ONS	(531.0 / 351.0) 376617 (533.0 / 353.0) 119231	(9.71 , 1.50) (N/A , -0.01 , 0.1)	453.1 301.0	0.3166 99.0 100.9	0.2299 [0.1867]	123.2%			
11CI-PF3OUDS	(631.0 / 451.0) 155578 (633.0 / 453.0) 48559	(10.00 , 1.55) (N/A , -0.01 , 0.1)	447.9 2608.5	0.3121 106.6 87.6	0.1817 [0.1886]	96.3%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 4235 (241.0 / 117.0) 6049	(4.46 , 0.90) (N/A , -0.01 , 0.2)	140.4 24.5	1.4284 104.6 106.6	0.4513 [0.4000]	112.8%			
5:3FTCA	(341.0 / 236.7) 30317 (341.0 / 217.0) 45733	(6.76 , 1.10) (N/A , -0.02 , -0.1)	81.9 130.5	1.5085 90.7 93.6	0.5243 [0.4000]	131.1%			QC,
7:3FTCA	(441.0 / 317.0) 33258 (441.0 / 337.0) 29002	(8.58 , 1.40) (N/A , -0.02 , 0.3)	121.2 225.3	0.8720 104.3 101.5	0.4669 [0.4000]	116.7%			
PFEESA	(315.0 / 135.0) 71905 (315.0 / 83.0) 24606	(6.57 , 1.07) (N/A , -0.02 , 0.0)	361.5 92.0	0.3422 111.1 110.8	0.1915 [0.1785]	107.3%			
PFMPA	(229.0 / 85.0) 18176	(4.17 , 0.84) (N/A , -0.01 , 0.0)	353.4	N/A 0.0 0.0	0.2233 [0.2000]	111.7%			
PFMBA	(279.0 / 85.0) 50006	(5.35 , 1.08) (N/A , -0.02 , 0.0)	475.0	N/A 0.0 0.0	0.2347 [0.2000]	117.4%			
NFDHA	(295.0 / 201.0) 42283 (295.0 / 85.0) 35628	(6.01 , 0.98) (N/A , -0.01 , 0.4)	348.4 217.2	0.8426 97.0 93.9	0.2346 [0.2000]	117.3%			
13C3_PFBa_IIS	(216.0 / 172.0) 293902	(3.69 , N/A) (N/A , 0.01 , N/A)	672.9	N/A	1.0872 [1.0000]	108.7% { 102.2% }			
13C2_PFHxA_IIS	(315.0 / 270.0) 453656	(6.12 , N/A) (N/A , -0.01 , N/A)	388.0	N/A	1.1423 [1.0000]	114.2% { 110.7% }			
13C4_PFOA_IIS	(417.0 / 372.0) 434918	(7.87 , N/A) (N/A , -0.02 , N/A)	685.1	N/A	1.0887 [1.0000]	108.9% { 111.1% }			
13C5_PFNAl_IIS	(468.0 / 423.0) 380996	(8.61 , N/A) (N/A , -0.02 , N/A)	340.9	N/A	1.1526 [1.0000]	115.3% { 111.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (Δ RT-[min], Δ RT- CV[min], Δ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.0 / 470.1) 380384	(9.29, N/A) (N/A, -0.02, N/A)	408.7	N/A	1.0653 [1.0000]	106.5% { 105.0% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 780417	(7.99, N/A) (N/A, -0.02, N/A)	684.6	N/A	1.1189 [1.0000]	111.9% { 118.7% }			
13C4_PFOS_IIS	(503.0 / 79.9) 785069	(9.43, N/A) (N/A, -0.02, N/A)	470.1	N/A	1.1385 [1.0000]	113.9% { 116.2% }			
13C4_PFBA_EIS	(217.0 / 172.0) 2019205	(3.69, N/A) (N/A, 0.01, N/A)	722.8	N/A	6.3933 [8.0000]	79.9% { 85.5% }			
13C5_PFPeA_EIS	(268.0 / 223.0) 1255454	(4.97, N/A) (N/A, -0.01, N/A)	653.2	N/A	3.0283 [4.0000]	75.7% { 88.3% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 827615	(6.12, N/A) (N/A, -0.02, N/A)	597.8	N/A	1.6402 [2.0000]	82.0% { 87.3% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 737336	(7.05, N/A) (N/A, -0.02, N/A)	633.0	N/A	1.6354 [2.0000]	81.8% { 92.0% }			
13C8_PFOA_EIS	(421.0 / 376.0) 789462	(7.87, N/A) (N/A, -0.02, N/A)	563.7	N/A	1.6565 [2.0000]	82.8% { 96.5% }			
13C9_PFNA_EIS	(472.0 / 427.0) 355186	(8.61, N/A) (N/A, -0.03, N/A)	585.7	N/A	0.8469 [1.0000]	84.7% { 94.8% }			
13C6_PFDA_EIS	(519.0 / 474.0) 405059	(9.29, N/A) (N/A, -0.02, N/A)	380.0	N/A	0.8140 [1.0000]	81.4% { 96.0% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 572344	(9.71, N/A) (N/A, -0.01, N/A)	584.2	N/A	0.9491 [1.0000]	94.9% { 89.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 600514	(9.89 , N/A) (N/A , -0.01 , N/A)	648.5	N/A	0.9048 [1.0000]	90.5% { 95.2% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 459946	(10.13 , N/A) (N/A , 0.00 , N/A)	815.9	N/A	1.0499 [1.0000]	105.0% { 104.0% }			
13C3_PFBs_EIS	(302.0 / 80.0) 2095330	(6.07 , N/A) (N/A , -0.02 , N/A)	676.7	N/A	1.5944 [2.0000]	79.7% { 97.2% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 1100925	(7.99 , N/A) (N/A , -0.02 , N/A)	724.6	N/A	1.5783 [2.0000]	78.9% { 97.7% }			
13C8_PFOS_EIS	(507.0 / 80.0) 1644888	(9.43 , N/A) (N/A , -0.02 , N/A)	503.3	N/A	1.6178 [2.0000]	80.9% { 89.1% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 459030	(5.79 , N/A) (N/A , -0.01 , N/A)	733.7	N/A	2.9660 [4.0000]	74.2% { 85.8% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 661531	(7.53 , N/A) (N/A , -0.01 , N/A)	670.8	N/A	3.4397 [4.0000]	86.0% { 97.3% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 629820	(8.95 , N/A) (N/A , -0.02 , N/A)	561.3	N/A	3.3217 [4.0000]	83.0% { 87.0% }			
13C8_PFOA_EIS	(506.0 / 78.0) 1721675	(10.18 , N/A) (N/A , 0.00 , N/A)	925.9	N/A	1.2736 [2.0000]	63.7% { 68.5% }			
D3_NMeFOA_EIS	(515.0 / 169.0) 199530	(10.61 , N/A) (N/A , 0.00 , N/A)	739.8	N/A	0.7611 [2.0000]	38.1% { 43.3% }			
D5_NEtFOA_EIS	(531.0 / 169.0) 196532	(10.69 , N/A) (N/A , 0.00 , N/A)	747.1	N/A	0.8414 [2.0000]	42.1% { 39.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [True] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 922588	(9.48 , N/A) (N/A , -0.02 , N/A)	555.4	N/A	3.3170 [4.0000]	82.9% { 92.5% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 873563	(9.67 , N/A) (N/A , -0.01 , N/A)	364.1	N/A	3.6669 [4.0000]	91.7% { 120.9% }			
D7_NMeFOSE_EIS	(623.0 / 58.9) 496702	(10.57 , N/A) (N/A , 0.00 , N/A)	963.3	N/A	11.8259 [20.0000]	59.1% { 51.7% }			
D9_NEtFOSE_EIS	(639.0 / 58.9) 220743	(10.67 , N/A) (N/A , 0.00 , N/A)	1153.4	N/A	12.9961 [20.0000]	65.0% { 52.7% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 1899329	(6.47 , N/A) (N/A , -0.02 , N/A)	636.8	N/A	6.7784 [8.0000]	84.7% { 91.6% }			

PREPARATION BATCH SUMMARY

EPA 1633 SPLP

Laboratory: APPL, LLC

Work Order: 22L0126

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Batch: BBL0475

Batch Matrix: Solid

Preparation: PFAS Leachates

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT mL	FINAL VOL. mL
ADIT6-DU05-SON01MI-22DEC	22L0126-01	12/27/22 13:57	94.45	2.00
ADIT6-DU05-SON01MI-22DEC	22L0126-01RE1	12/27/22 13:57	94.45	2.00
ADIT6-DU06-SON01MI-22DEC	22L0126-02	12/27/22 13:57	97.56	2.00
ADIT6-DU07-SON01MI-22DEC	22L0126-03	12/27/22 13:57	98.32	2.00
ADIT6-DU07-SON01MI-22DEC	22L0126-03RE1	12/27/22 13:57	98.32	2.00
ADIT6-DU08-SON01MI-22DEC	22L0126-04	12/27/22 13:57	95.54	2.00
ADIT6-DU08-SON01MI-22DEC	22L0126-04RE1	12/27/22 13:57	95.54	2.00
Blank	BBL0475-BLK1	12/27/22 13:57	100.00	2.00
LCS	BBL0475-BS1	12/27/22 13:57	100.00	2.00
MRL Check	BBL0475-MRL1	12/27/22 13:57	100.00	2.00

PREPARATION BENCH SHEET

Organics

BBL0475

Print Date/Time: 01/12/2023 3:35 pm

Matrix: Solid

Prepared using: PFAS - PFAS Leachates

Analyses 1633 SPLP B-15 DOD SPLP		Spiking Solution(s) 22L0269 PFAS - MIX 1633 10ng/mL		Surrogate Solution(s) 22L0357 MPFAC-HIF-ES 20.0ng/mL	
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Lab Number	Sample and Source ID	Date Due	Extract by	Prepared	Initial (mL)	Final (mL)	ul Spike	ul Surrogate	Extraction Comments
22L0126-01	ADIT6-DU05-SON01MI-22DEC	12/27/2022	01/12/2023	12/27/2022 1:57:00PM	94.45	2		400	extracted LYA
22L0126-01RE1	ADIT6-DU05-SON01MI-22DEC	12/27/2022	01/12/2023	12/27/2022 1:57:00PM	94.45	2		400	extracted LYA
22L0126-02	ADIT6-DU06-SON01MI-22DEC	12/27/2022	01/12/2023	12/27/2022 1:57:00PM	97.56	2		400	extracted LYA
22L0126-02RE1	ADIT6-DU06-SON01MI-22DEC	12/27/2022	01/12/2023	12/27/2022 1:57:00PM	97.56	2		400	extracted LYA
22L0126-03	ADIT6-DU07-SON01MI-22DEC	12/27/2022	01/12/2023	12/27/2022 1:57:00PM	98.32	2		400	extracted LYA
22L0126-03RE1	ADIT6-DU07-SON01MI-22DEC	12/27/2022	01/12/2023	12/27/2022 1:57:00PM	98.32	2		400	extracted LYA
22L0126-04	ADIT6-DU08-SON01MI-22DEC	12/27/2022	01/12/2023	12/27/2022 1:57:00PM	95.54	2		400	extracted LYA
22L0126-04RE1	ADIT6-DU08-SON01MI-22DEC	12/27/2022	01/12/2023	12/27/2022 1:57:00PM	95.54	2		400	extracted LYA
22L0136-01	SS593P-MW01B-22			12/27/2022 1:57:00PM	96.87	2		200	extracted LYA
22L0136-01RE1	SS593P-MW01B-22	01/05/2023	01/11/2023	12/27/2022 1:57:00PM	96.87	2		200	extracted LYA
BBL0475-BLK1	Blank			12/27/2022 1:57:00PM	100	2	0	400	
BBL0475-BS1	LCS			12/27/2022 1:57:00PM	100	2	200	200	
BBL0475-MRL1	MRL Check			12/27/2022 1:57:00PM	100	2	20	200	

Reagents	Standard	Description	LotNum
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Start Date/Time

Stop Date/Time

Batch Comments:

Spiked by:

Balance #: WB2

Cartridge:

Concentration: 12/28/22 1:36:5:45

NO SPIKE NO SPIKE NO SPIKE

Spiking Witnessed By

Date

Preparation Reviewed By

Date

Extracts Received By

Date

INJECTION LOG - ANALYSIS SEQUENCE SUMMARY

EPA 1633 SPLP

Laboratory: APPL, LLC

SDG:

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Sequence: SB03988

Instrument: Saphira

Calibration: 2253007

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	SB03988-CAL1	S2022-12-27A (1)	12/27/22 17:10
Cal Standard	SB03988-CAL2	S2022-12-27A (2)	12/27/22 17:23
Cal Standard	SB03988-CAL3	S2022-12-27A (3)	12/27/22 17:36
Cal Standard	SB03988-CAL4	S2022-12-27A (4)	12/27/22 17:49
Cal Standard	SB03988-CAL5	S2022-12-27A (5)	12/27/22 18:02
Cal Standard	SB03988-CAL6	S2022-12-27A (6)	12/27/22 18:14
Cal Standard	SB03988-CAL7	S2022-12-27A (7)	12/27/22 18:27
Cal Standard	SB03988-CAL8	S2022-12-27A (8)	12/27/22 18:40
Initial Cal Blank	SB03988-ICB1	S2022-12-27A (9)	12/27/22 18:53
Secondary Cal Check	SB03988-SCV1	S2022-12-27A (10)	12/27/22 19:06

INJECTION LOG - ANALYSIS SEQUENCE SUMMARY

EPA 1633

Laboratory: APPL, LLC

SDG:

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Sequence: SB03989

Instrument: Saphira

Calibration: 2253007

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Blank	SB03989-CCB1	S2022-12-27B (1)	12/27/22 19:32
Low Cal Check	SB03989-LCV1	S2022-12-27B (2)	12/27/22 19:45
Calibration Check	SB03989-CCV1	S2022-12-27B (3)	12/27/22 19:57
Calibration Blank	SB03989-CCB2	S2022-12-27B (4)	12/27/22 20:36
Calibration Check	SB03989-CCV2	S2022-12-27B (17)	12/27/22 23:24
Calibration Blank	SB03989-CCB3	S2022-12-27B (18)	12/27/22 23:36
LCS	BBL0475-BS1	S2022-12-27B (20)B	12/28/22 00:02
MRL Check	BBL0475-MRL1	S2022-12-27B (21)B	12/28/22 00:15
Calibration Check	SB03989-CCV3	S2022-12-27B (32)	12/28/22 02:37
Calibration Blank	SB03989-CCB4	S2022-12-27B (33)	12/28/22 02:50

INJECTION LOG - ANALYSIS SEQUENCE SUMMARY

EPA 1633

Laboratory: APPL, LLC

SDG:

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Sequence: SB04022

Instrument: Saphira

Calibration: 2253011

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Blank	SB04022-CCB1	S2022-12-30A (1)	12/30/22 16:17
Low Cal Check	SB04022-LCV1	S2022-12-30A (2)	12/30/22 16:29
Calibration Check	SB04022-CCV1	S2022-12-30A (3)	12/30/22 16:42
Calibration Blank	SB04022-CCB2	S2022-12-30A (6)	12/30/22 17:21
Calibration Check	SB04022-CCV2	S2022-12-30A (15)	12/30/22 19:17
Calibration Blank	SB04022-CCB3	S2022-12-30A (16)	12/30/22 19:30
Blank	BBL0470-BLK1	S2022-12-30A (17)	12/30/22 19:43
LCS	BBL0470-BS1	S2022-12-30A (18)	12/30/22 19:56
MRL Check	BBL0470-MRL1	S2022-12-30A (19)	12/30/22 20:09
ADIT6-DU05-SON01MI-22DEC	BBL0470-MS1	S2022-12-30A (20)	12/30/22 20:21
ADIT6-DU05-SON01MI-22DEC	BBL0470-MSD1	S2022-12-30A (21)	12/30/22 20:34
ADIT6-DU05-SON01MI-22DEC	22L0126-01	S2022-12-30A (22)	12/30/22 20:47
ADIT6-DU06-SON01MI-22DEC	22L0126-02	S2022-12-30A (24)	12/30/22 21:13
ADIT6-DU07-SON01MI-22DEC	22L0126-03	S2022-12-30A (26)	12/30/22 21:39
ADIT6-DU08-SON01MI-22DEC	22L0126-04	S2022-12-30A (28)	12/30/22 22:05
Calibration Check	SB04022-CCV3	S2022-12-30A (30)	12/30/22 22:30
Calibration Blank	SB04022-CCB4	S2022-12-30A (31)	12/30/22 22:43
Blank	BBL0475-BLK1	S2022-12-30A (32)	12/30/22 22:56
ADIT6-DU05-SON01MI-22DEC	22L0126-01	S2022-12-30A (36)	12/30/22 23:48
ADIT6-DU05-SON01MI-22DEC	22L0126-01RE1	S2022-12-30A (37)	12/31/22 00:01
ADIT6-DU06-SON01MI-22DEC	22L0126-02	S2022-12-30A (38)	12/31/22 00:13
ADIT6-DU07-SON01MI-22DEC	22L0126-03	S2022-12-30A (40)	12/31/22 00:39
ADIT6-DU07-SON01MI-22DEC	22L0126-03RE1	S2022-12-30A (41)	12/31/22 00:52
ADIT6-DU08-SON01MI-22DEC	22L0126-04	S2022-12-30A (42)	12/31/22 01:05
ADIT6-DU08-SON01MI-22DEC	22L0126-04RE1	S2022-12-30A (43)	12/31/22 01:18
Calibration Check	SB04022-CCV4	S2022-12-30A (46)	12/31/22 01:56
Calibration Blank	SB04022-CCB5	S2022-12-30A (47)	12/31/22 02:09

Solids

SAMPLE DATA

Solids

ANALYSIS DATA SHEET
ADIT6-DU05-SON01MI-22DEC

Laboratory: APPL, LLC

Client: AECOM

Matrix: Solid

Sampled: 12/15/22 15:10

% Solids: 79.91

SDG:

Project: Red Hill AFFF Assessment Sampling

Laboratory ID: 22L0126-01

Analyte	Concentration (%)	LOQ	LOD	DL	DF	Q	Batch	Analyzed	Method
% Solids	79.9	2.00	1.50	0.750	1		BBL0347	12/19/22 07:52	ISM02.2

ANALYSIS DATA SHEET
ADIT6-DU06-SON01MI-22DEC

Laboratory: APPL, LLC

Client: AECOM

Matrix: Solid

Sampled: 12/15/22 14:40

% Solids: 79.36

SDG:

Project: Red Hill AFFF Assessment Sampling

Laboratory ID: 22L0126-02

Analyte	Concentration (%)	LOQ	LOD	DL	DF	Q	Batch	Analyzed	Method
% Solids	79.4	2.00	1.50	0.750	1		BBL0347	12/19/22 07:52	ISM02.2

ANALYSIS DATA SHEET
ADIT6-DU07-SON01MI-22DEC

Laboratory: APPL, LLC

Client: AECOM

Matrix: Solid

Sampled: 12/15/22 14:55

% Solids: 80.57

SDG:

Project: Red Hill AFFF Assessment Sampling

Laboratory ID: 22L0126-03

Analyte	Concentration (%)	LOQ	LOD	DL	DF	Q	Batch	Analyzed	Method
% Solids	80.6	2.00	1.50	0.750	1		BBL0347	12/19/22 07:52	ISM02.2

ANALYSIS DATA SHEET
ADIT6-DU08-SON01MI-22DEC

Laboratory: APPL, LLC

Client: AECOM

Matrix: Solid

Sampled: 12/15/22 11:32

% Solids: 82.02

SDG:

Project: Red Hill AFFF Assessment Sampling

Laboratory ID: 22L0126-04

Analyte	Concentration (%)	LOQ	LOD	DL	DF	Q	Batch	Analyzed	Method
% Solids	82.0	2.00	1.50	0.750	1		BBL0347	12/19/22 07:52	ISM02.2

DUPLICATES

ADIT6-DU05-SON01MI-22DEC

Laboratory: APPL, LLC

Work Order: 22L0126

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Matrix: Solid

Laboratory ID: BBL0347-DUP1

Batch: BBL0347

Initial/Final: 6 g / 6 g

Preparation: ISM02.2

Analysis: ISM02.2

% Solids: 79.91

ANALYTE	SAMPLE CONC. (%)	DUPLICATE CONC. (%)	RPD %	Q	CONTROL LIMIT
% Solids	79.9	79.2	0.900		20
MOISTURE	20.1	20.8	3.50		20

Method:	CLP 4.0	Analyst:	
Oven Temp:	104 °C		µm
QCG:	BBL0347		
Date in Oven:	12/19/2022	Time in Oven:	7:52
Date out Oven:	12/20/2022	Time out Oven:	7:24
Date in Oven:		Time in Oven:	
Date out Oven:		Time out Oven:	

[illegible]



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

N-EtFOSA-M

LOT NUMBER:

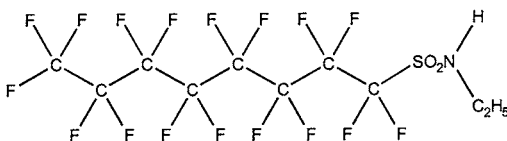
NEtFOSA0821M

COMPOUND:

N-ethylperfluoro-1-octanesulfonamide

STRUCTURE:**CAS #:**

4151-50-2

**MOLECULAR FORMULA:** $C_{10}H_{17}F_{17}NO_2S$ **MOLECULAR WEIGHT:**

527.20

CONCENTRATION: $50.0 \pm 2.5 \mu\text{g/mL}$ **SOLVENT(S):**

Methanol

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

08/12/2021

EXPIRY DATE: (mm/dd/yyyy)

08/12/2026

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (Full Scan and Mass Spectrum)

Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

Date: 08/16/2021

(mm/dd/yyyy)

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

INTENDED USE:

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HANDLING:

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

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

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

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

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

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

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EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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

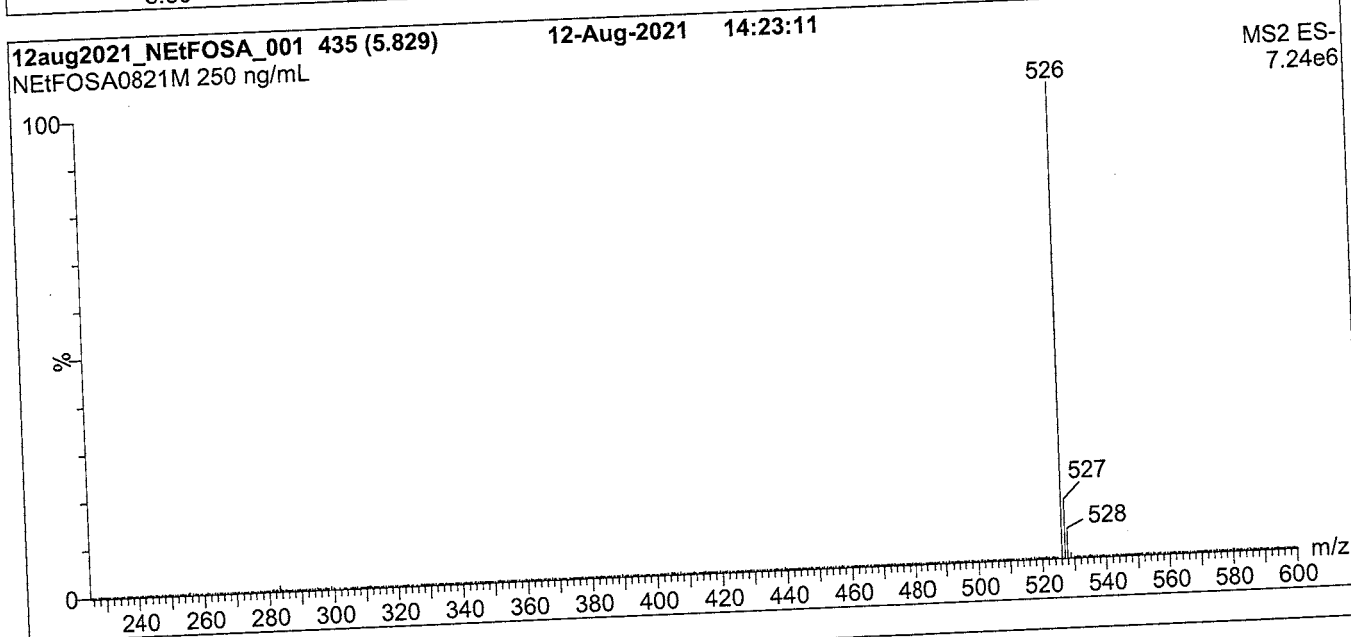
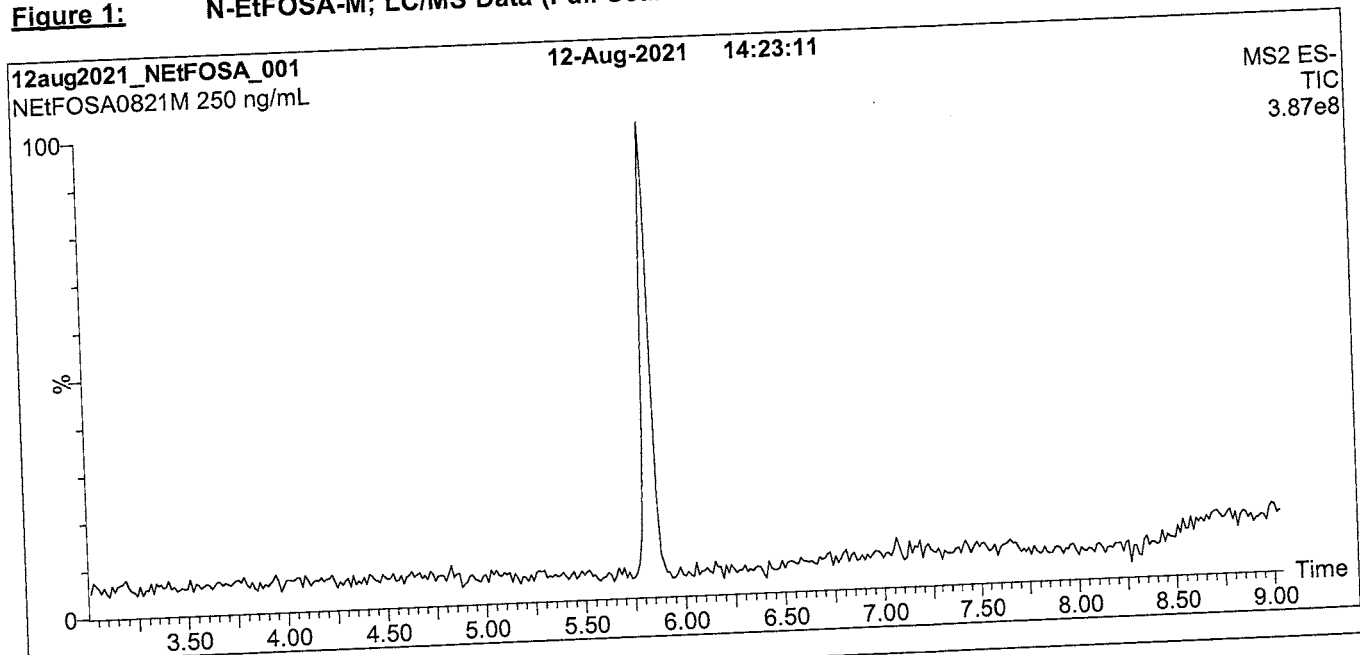
QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).



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

Figure 1: N-EtFOSA-M; LC/MS Data (Full Scan and Mass Spectrum)



Conditions for Figure 1:

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

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

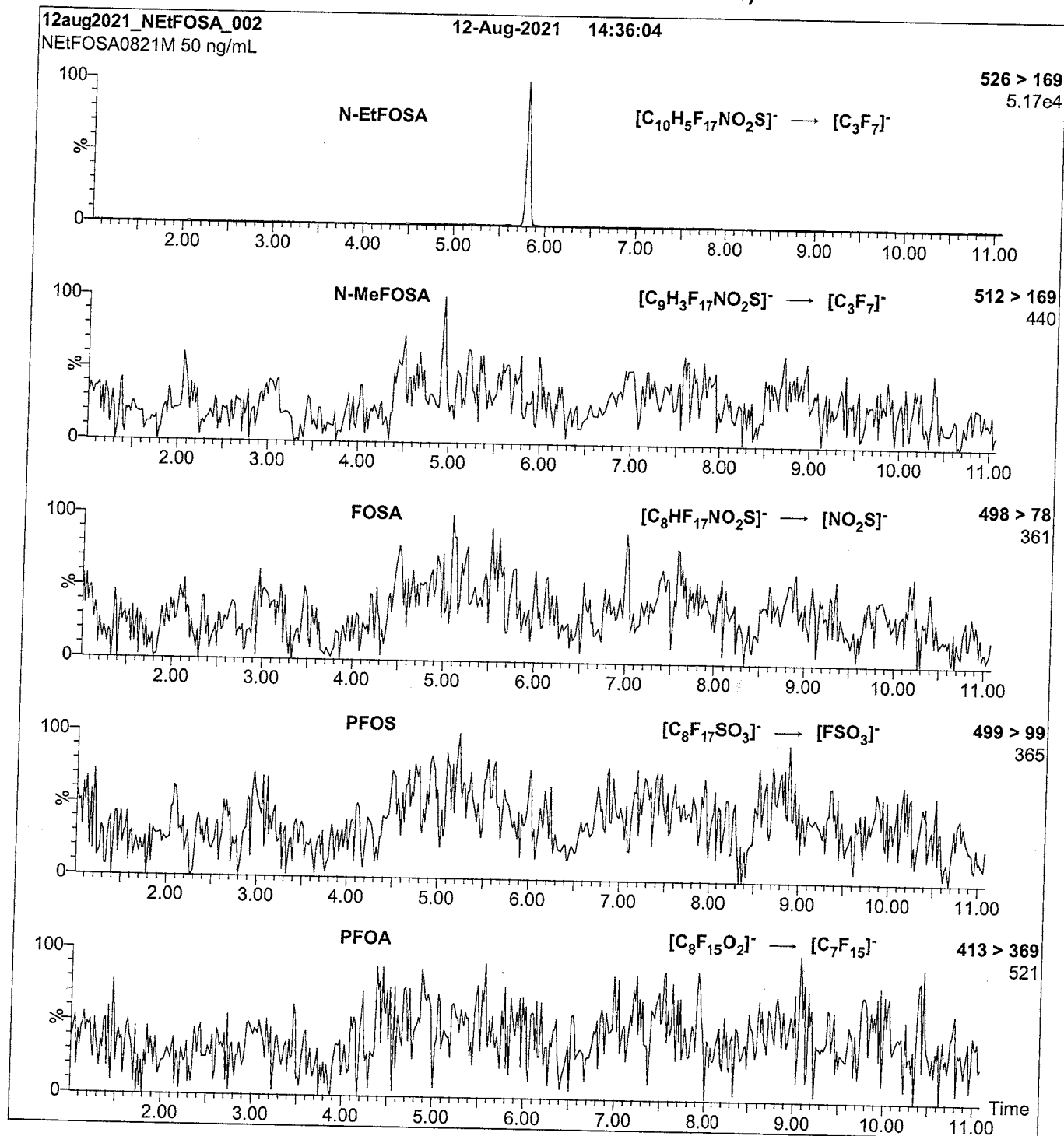
Mobile phase: Gradient
Start: 30% H₂O / 70% (80:20 MeOH:ACN)
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ L/min

MS Parameters:

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 1.00
Cone Voltage (V) = 44.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (L/hr) = 1000

Figure 2: N-EtFOSA-M; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 2:**

Injection: On-column (N-EtFOSA-M)

Mobile phase: Same as Figure 1

Flow: 300 μ L/min**MS Parameters:**

Collision Gas (mbar) = 3.29e-3

Collision Energy (eV) = 24

Analytical Standard Record

21J0007

Description:	PFAS - SAS N-EtFOSA 50ug/mL	Expires:	08/12/2026
Standard Type:	Analyte Spike	Prepared:	08/12/2021
Solvent:	MeOH	Prepared By:	Wellington Laboratories (Lot#:
Final Volume (mLs):	1	Department:	PFAS (N-EtFOSA0821M)
Vials:	1	Last Edit:	12/07/2021 16:05 by HGH

Analyte	Parent	CAS Number	Concentration	Units
N-ETFOSA		4151-50-2	50	ug/mL

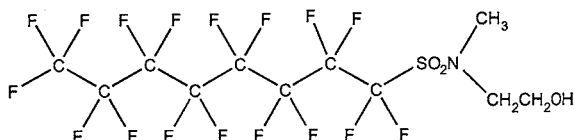


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-MeFOSE-M **LOT NUMBER:** NMeFOSE0921M
COMPOUND: 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol

STRUCTURE: **CAS #:** 24448-09-7



MOLECULAR FORMULA: $C_{11}H_8F_{17}NO_3S$ **MOLECULAR WEIGHT:** 557.22
CONCENTRATION: $50.0 \pm 2.5 \mu\text{g/mL}$ **SOLVENT(S):** Methanol
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 09/22/2021 (HRGC/LRMS)
 09/23/2021 (LC/MS)
EXPIRY DATE: (mm/dd/yyyy) 09/23/2026
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (Full Scan and Mass Spectrum)
 Figure 2: LC/MS Data (Full Scan and Mass Spectrum)
 Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

Date: 09/28/2021
 (mm/dd/yyyy)

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

INTENDED USE:

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

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

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

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

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TRACEABILITY:

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EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

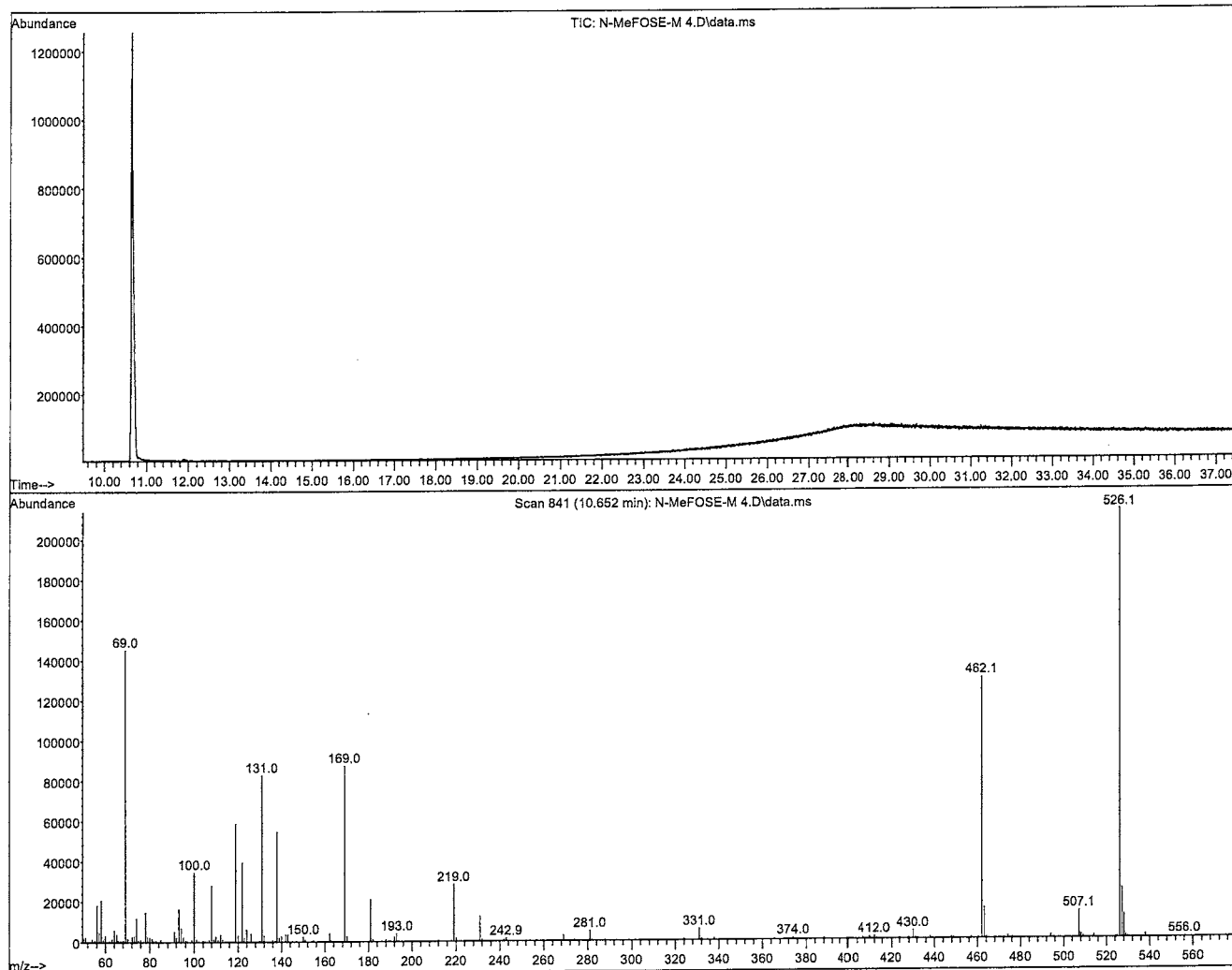
At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).



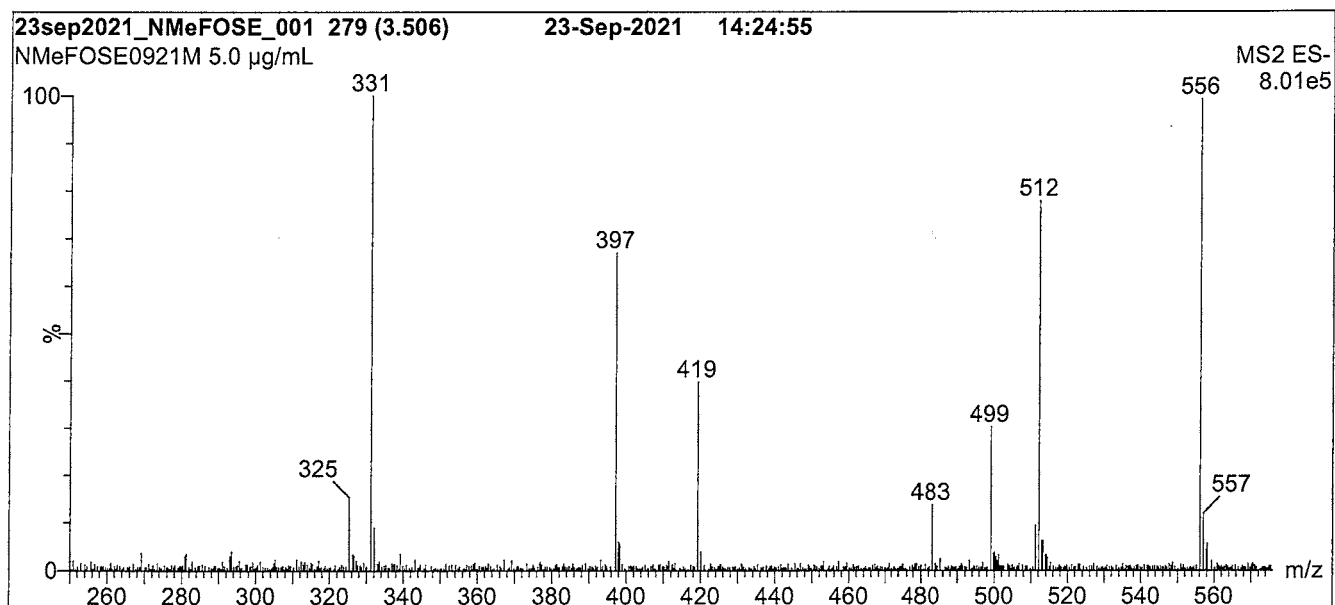
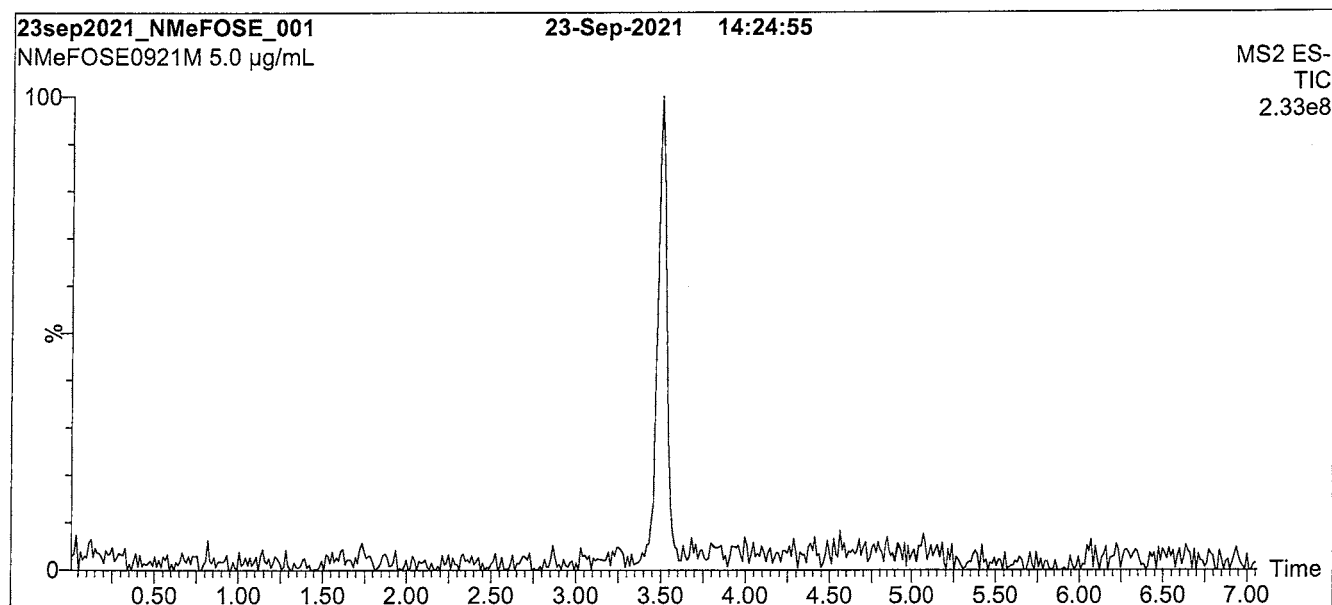
For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Figure 1: N-MeFOSE-M; HRGC/LRMS Data (Full Scan and Mass Spectrum)**Conditions for Figure 1:**

Agilent 7890A HRGC
 Agilent 5975C MSD

Chromatographic Conditions:

Column: 30 m DB-5 (0.25 mm id, 0.25 μ m film thickness) Agilent J&W
 Flow: Constant at 1 mL/min
 Injector: 250°C (Splitless Injection)
 Oven: 100°C (5 min)
 10°C/min to 310°C
 310°C (10 min)
 Ionization: EI+
 Detector: 230°C
 Full Scan (50-1000 amu)

Figure 2: N-MeFOSE-M; LC/MS Data (Full Scan and Mass Spectrum)**Conditions for Figure 2:**

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

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

Mobile phase: Gradient

Start: 30% H₂O / 70% MeOH

Ramp to 90% organic over 8 min and hold for
1.5 min before returning to initial conditions in 1 min.
Time: 12 min

Flow: 300 µL/min

MS Parameters:

Experiment: Full Scan (250 - 850 amu)

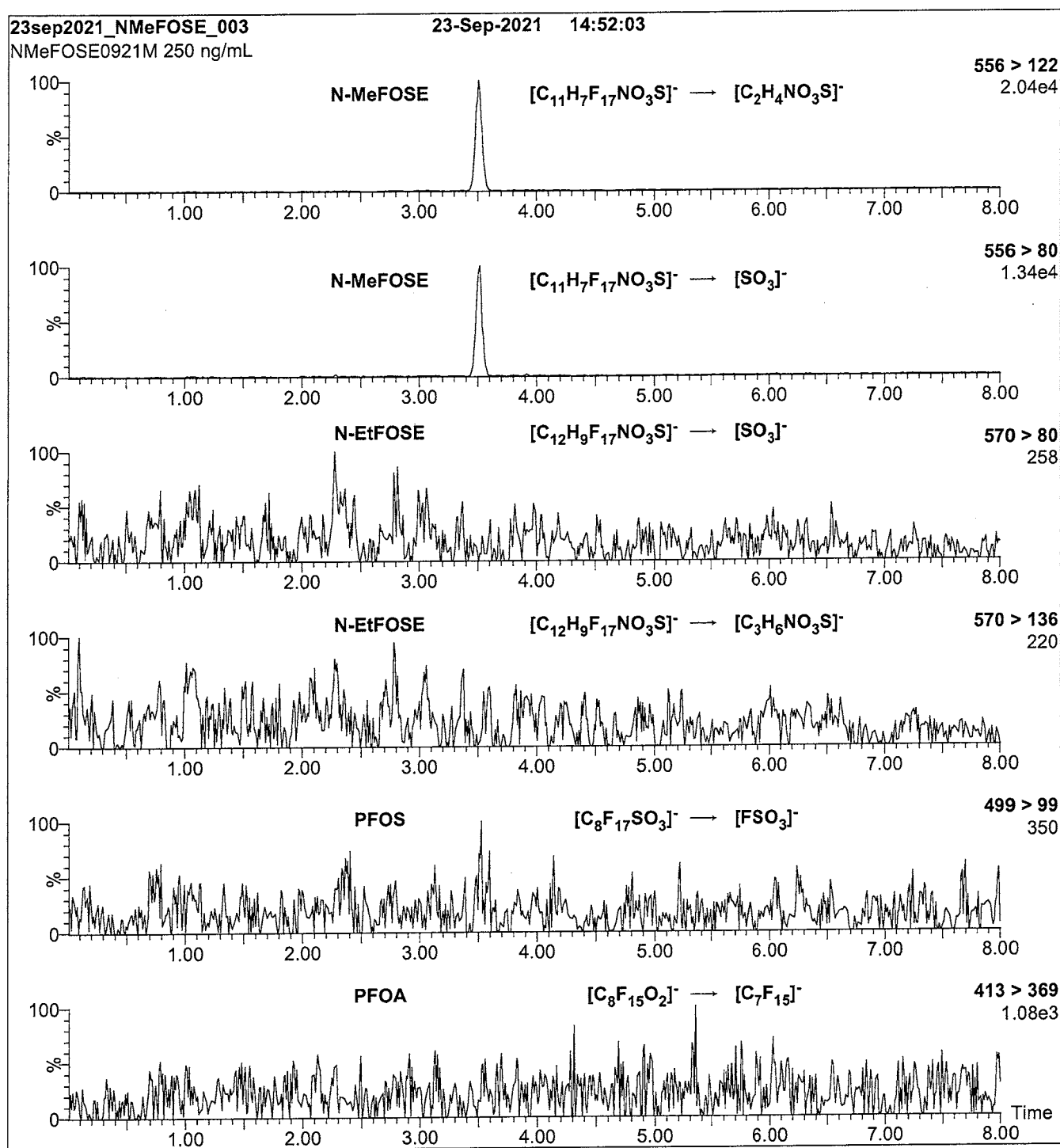
Source: Electrospray (negative)

Capillary Voltage (kV) = 2.00

Cone Voltage (V) = 65.00

Desolvation Temperature (°C) = 450

Desolvation Gas Flow (L/hr) = 1000

Figure 3: N-MeFOSE-M; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 3:**

Injection: On-column (N-MeFOSE-M)

Mobile phase: Same as Figure 2

Flow: 300 μ L/min**MS Parameters:**

Collision Gas (mbar) = 3.14e-3

Collision Energy (eV) = 36

Analytical Standard Record

21J0014

Description:	PFAS - SAS N-MeFOSE 50ug/mL	Expires:	09/23/2026
Standard Type:	Analyte Spike	Prepared:	09/22/2021
Solvent:	MeOH	Prepared By:	Wellington Laboratories (Lot#:
Final Volume (mLs):	1.2	Department:	PFAS (N-MeFOSE0921M)
Vials:	1	Last Edit:	12/07/2021 16:06 by HGH

Analyte	Parent	CAS Number	Concentration	Units
N-MEFOSE		24448-09-7	50	ug/mL

Analytical Standard Record

21J0014

Description:	PFAS - SAS N-MeFOSE 50ug/mL	Expires:	09/23/2026
Standard Type:	Analyte Spike	Prepared:	09/22/2021
Solvent:	MeOH	Prepared By:	Wellington Laboratories (Lot#:
Final Volume (mLs):	1.2	Department:	PFAS (N-MeFOSE0921M)
Vials:	1	Last Edit:	12/07/2021 16:06 by HGH

Analyte	Parent	CAS Number	Concentration	Units
N-MEFOSE		24448-09-7	50	ug/mL



WELLINGTON LABORATORIES

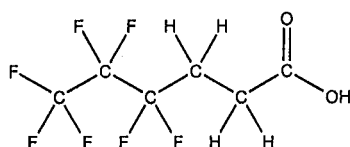
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: FPrPA
COMPOUND: 3-Perfluoropropyl propanoic acid

LOT NUMBER: FPrPA1020

STRUCTURE:

CAS #: 356-02-5



MOLECULAR FORMULA: $C_8H_5F_7O_2$
CONCENTRATION: $50.0 \pm 2.5 \mu\text{g/mL}$
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 11/12/2020
EXPIRY DATE: (mm/dd/yyyy) 11/12/2025
RECOMMENDED STORAGE: Refrigerate ampoule

MOLECULAR WEIGHT: 242.09
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains <1% of the unsaturated 3:3 telomer acid ($C_8H_3F_7O_2$) as an impurity determined by ^{19}F NMR.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
B.G. Chittim, General Manager

Date: 11/27/2020
(mm/dd/yyyy)

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

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

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

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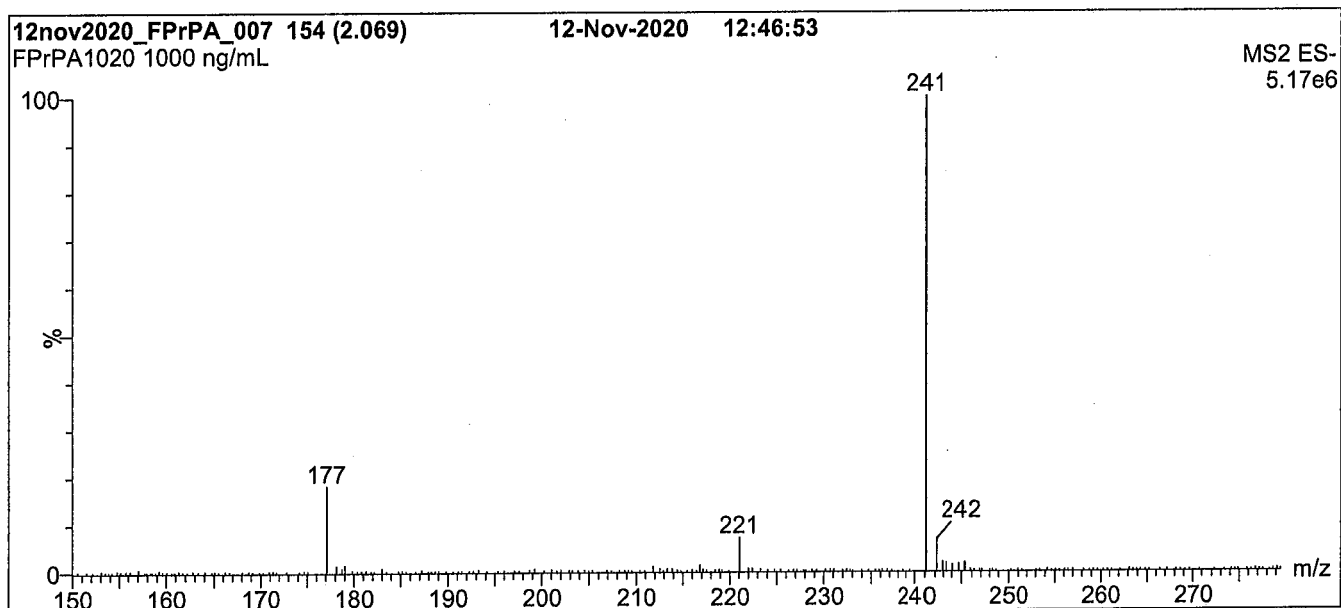
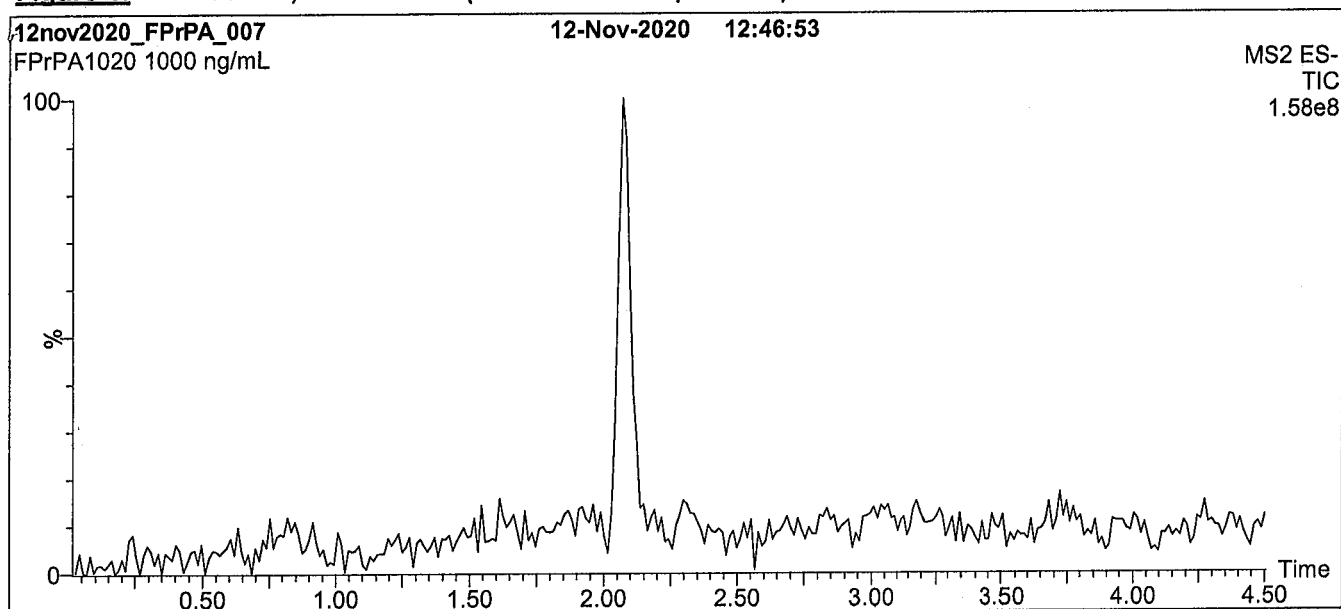
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Figure 1: FPrPA; LC/MS Data (TIC and Mass Spectrum)**Conditions for Figure 1:**

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

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

Mobile phase: Gradient

Start: 60% H₂O / 40% (80:20 MeOH:ACN)
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for 2 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ L/min

MS Parameters:

Experiment: Full Scan (150 - 850 amu)

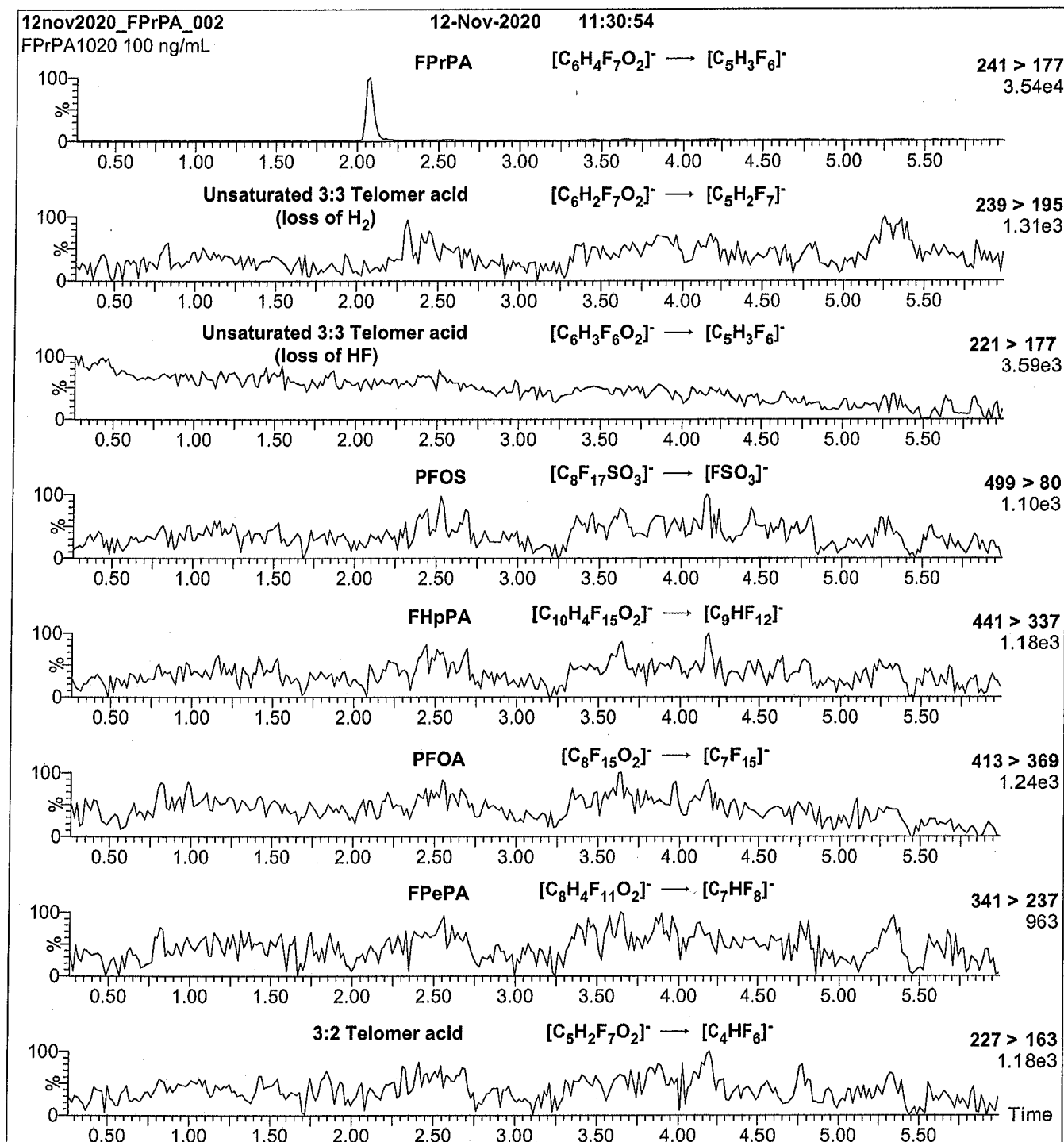
Source: Electrospray (negative)

Capillary Voltage (kV) = 0.50

Cone Voltage (V) = 18.50

Desolvation Temperature (°C) = 500

Desolvation Gas Flow (L/hr) = 1000

Figure 2: FPrPA; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 2:**

Injection: On-column (FPrPA)

Mobile phase: Same as Figure 1

Flow: 300 μ L/min**MS Parameters:**

Collision Gas (mbar) = 3.49e-3

Collision Energy (eV) = 10

Analytical Standard Record

21L0004

Description: PFAS - SAS 3:3FTA 50ug/mL
Standard Type: Analyte Spike
Solvent: MeOH
Final Volume (mLs): 1
Vials: 1
Comments: 3:3 FTCA 50.0ug/mL

Expires: 06/05/2022
Prepared: 12/07/2021
Prepared By: Hart Hedgpeth
Department: PFAS
Last Edit: 12/07/2021 16:03 by HGH

Analyte	Parent	CAS Number	Concentration	Units
3:3 FTA		113507-82-7	50	ug/mL



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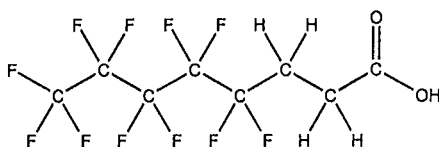
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: FPePA
COMPOUND: 3-Perfluoropentyl propanoic acid

LOT NUMBER: FPePA1120

STRUCTURE:

CAS #: 914637-49-3



MOLECULAR FORMULA: $C_8H_5F_{11}O_2$
CONCENTRATION: $50.0 \pm 2.5 \mu\text{g/mL}$
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 11/11/2020
EXPIRY DATE: (mm/dd/yyyy) 11/11/2025
RECOMMENDED STORAGE: Refrigerate ampoule

MOLECULAR WEIGHT: 342.11
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains <1% of the unsaturated 5:3 telomer acid ($C_8H_3F_{11}O_2$) as an impurity determined by ^{19}F NMR.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
B.G. Chittim, General Manager

Date: 11/27/2020
(mm/dd/yyyy)

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

INTENDED USE:

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

HANDLING:

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

SYNTHESIS / CHARACTERIZATION:

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HOMOGENEITY:

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

UNCERTAINTY:

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

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

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

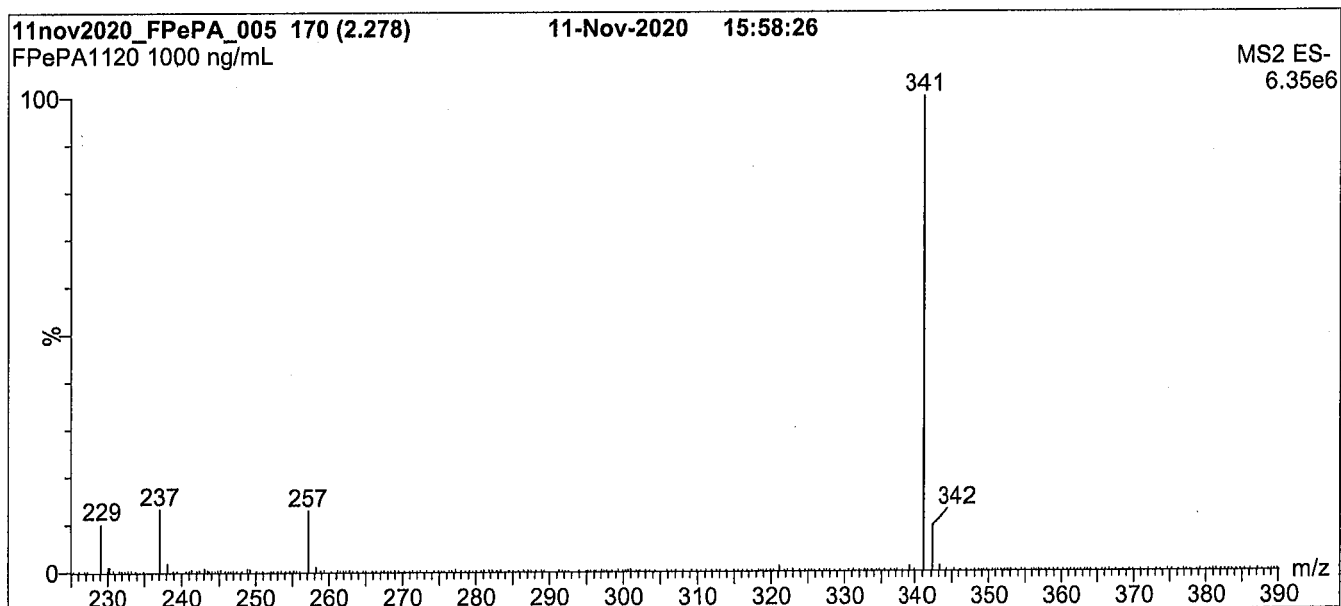
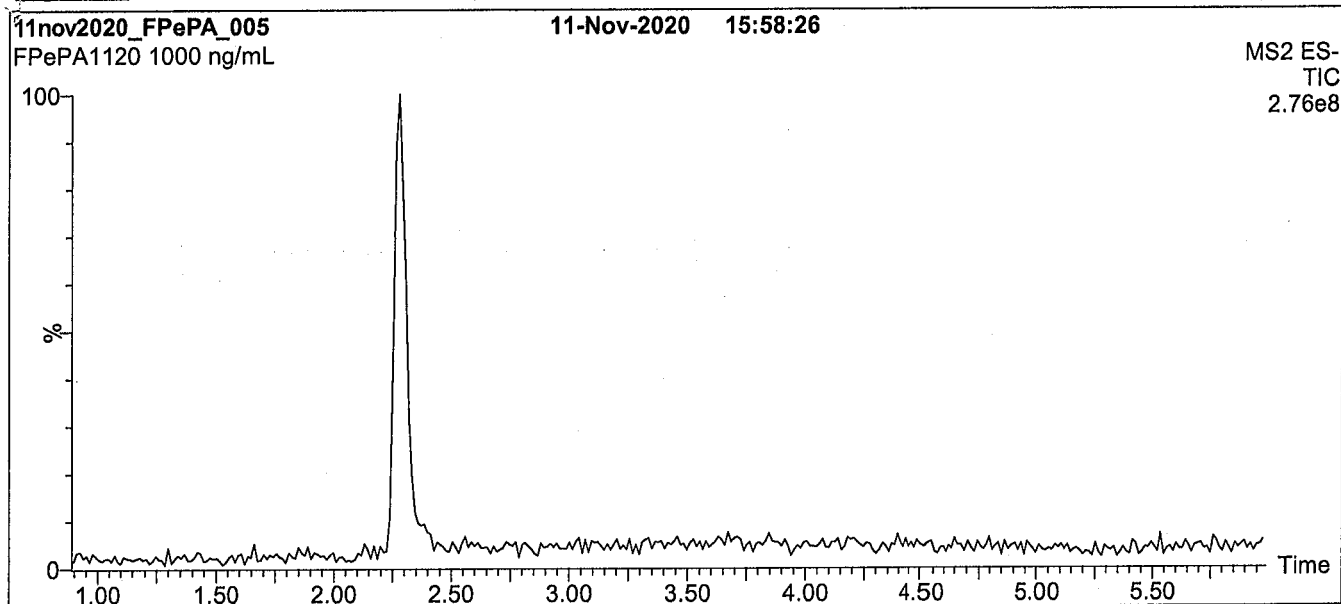
At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).



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

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

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

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

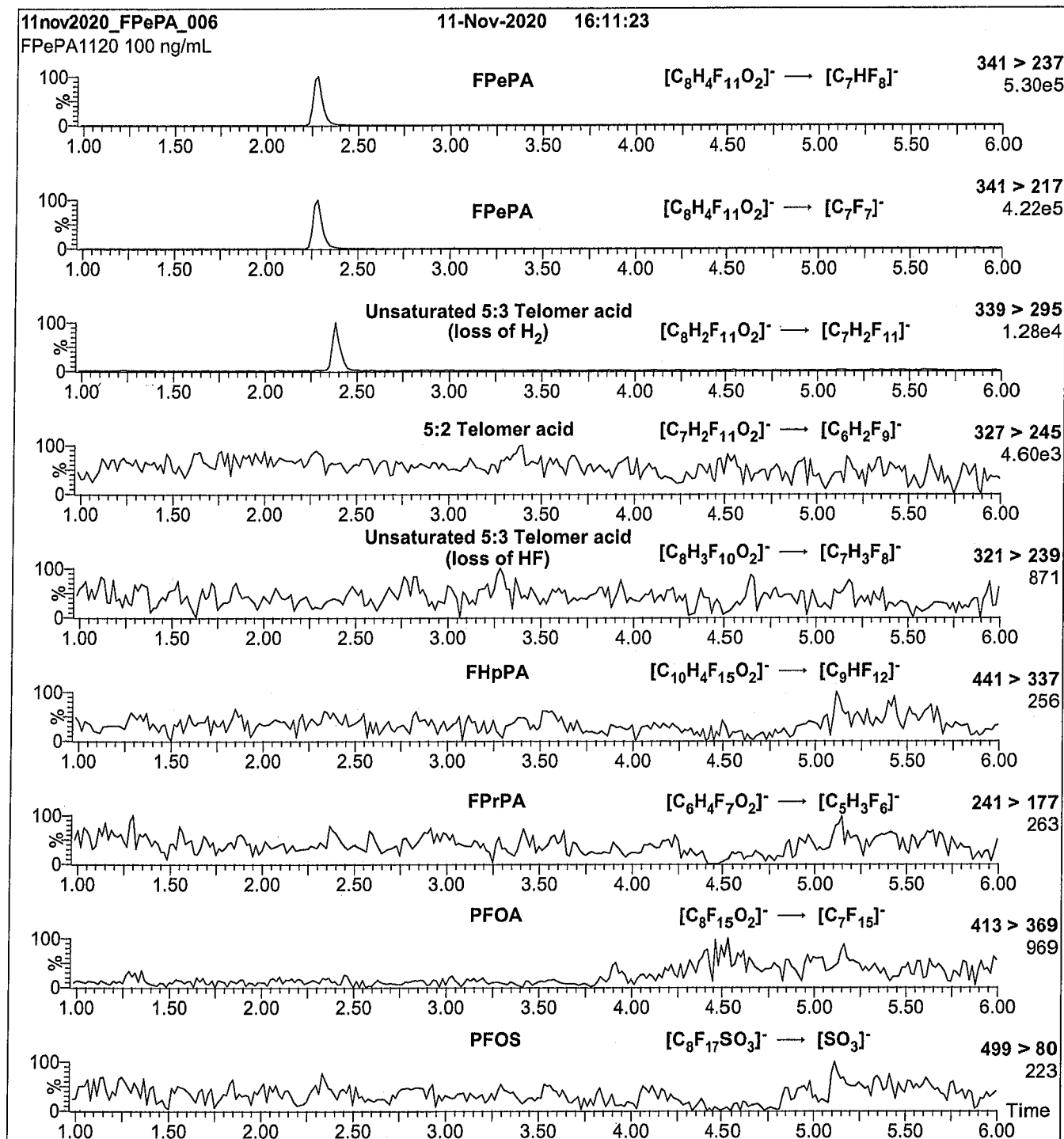
Mobile phase: Gradient
Start: 45% H₂O / 55% (80:20 MeOH:ACN)
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ L/min

MS Parameters:

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 18.50
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (L/hr) = 1000

Figure 2: FPePA; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 2:**

Injection: On-column (FPePA)

Mobile phase: Same as Figure 1

Flow: 300 μ L/min**MS Parameters:**

Collision Gas (mbar) = 3.24e-3

Collision Energy (eV) = 10

Analytical Standard Record

21L0005

Description: PFAS - SAS 5:3FTA 50ug/mL
Standard Type: Analyte Spike
Solvent: MeOH
Final Volume (mLs): 1.2
Vials: 1
Comments: 5:3 FTCA 50.0ug/mL

Expires: 06/05/2022
Prepared: 12/07/2021
Prepared By: Hart Hedgpeth
Department: PFAS
Last Edit: 12/07/2021 16:03 by HGH

Analyte	Parent	CAS Number	Concentration	Units
5:3 FTA		914637-49-3	50	ug/mL

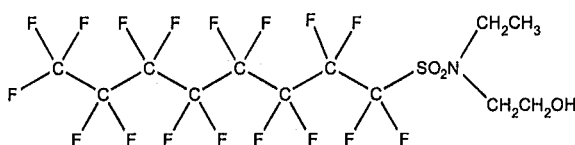


WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-EtFOSE-M **LOT NUMBER:** NEtFOSE0921M
COMPOUND: 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol

STRUCTURE: **CAS #:** 1691-99-2



MOLECULAR FORMULA: $C_{12}H_{10}F_{17}NO_3S$ **MOLECULAR WEIGHT:** 571.25
CONCENTRATION: $50.0 \pm 2.5 \mu\text{g/mL}$ **SOLVENT(S):** Methanol
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 09/22/2021 (HRGC/LRMS)
 09/23/2021 (LC/MS)
EXPIRY DATE: (mm/dd/yyyy) 09/23/2026
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

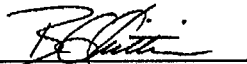
DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (Full Scan and Mass Spectrum)
 Figure 2: LC/MS Data (Full Scan and Mass Spectrum)
 Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

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Certified By: 
 B.G. Chittim, General Manager

Date: 10/20/2021
 (mm/dd/yyyy)

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

INTENDED USE:

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HANDLING:

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SYNTHESIS / CHARACTERIZATION:

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HOMOGENEITY:

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

UNCERTAINTY:

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

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

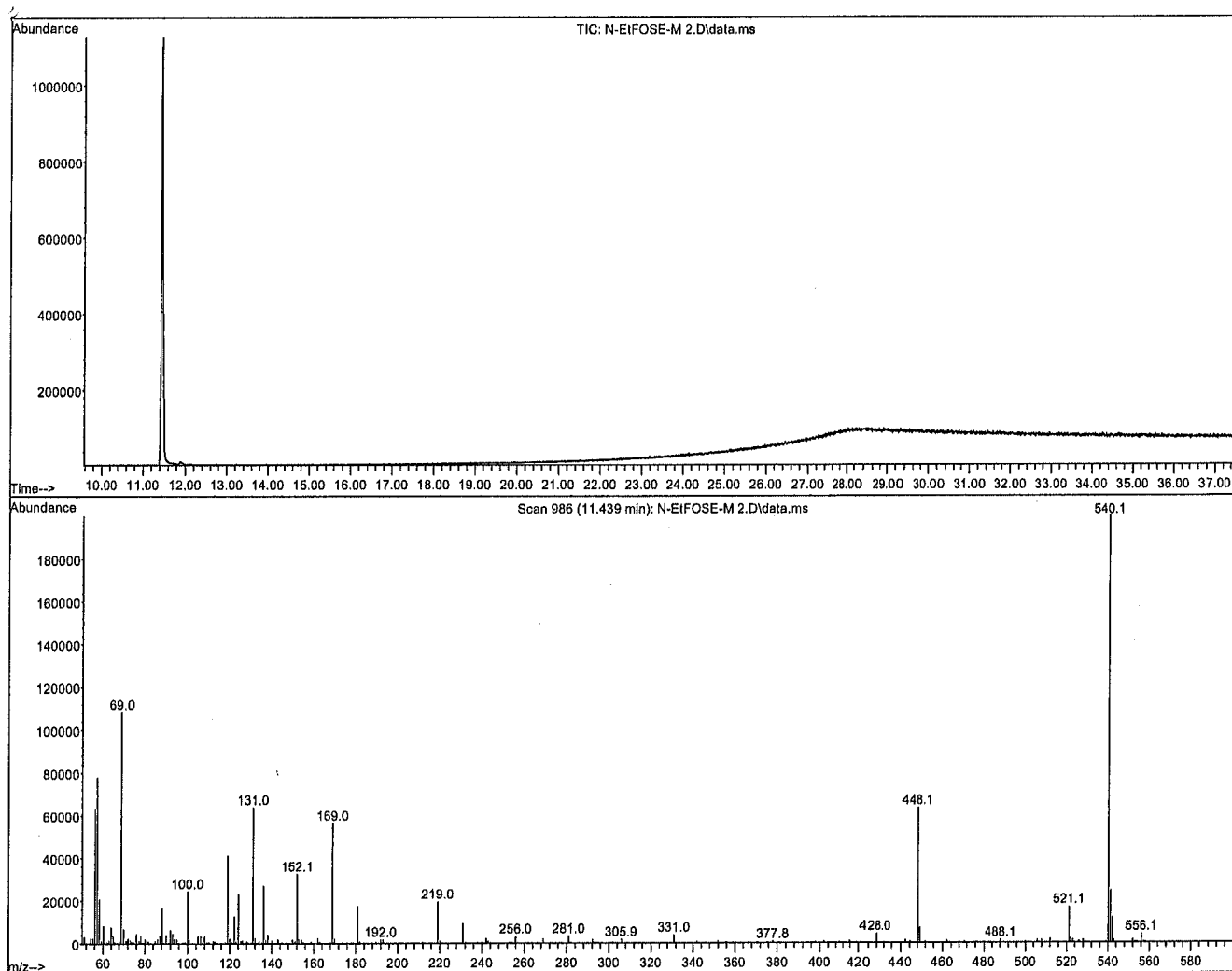
At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

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

Figure 1: N-EtFOSE-M; HRGC/LRMS Data (Full Scan and Mass Spectrum)**Conditions for Figure 1:**

Agilent 7890A HRGC
 Agilent 5975C MSD

Chromatographic Conditions:

Column: 30 m DB-5 (0.25 mm id, 0.25 μ m film thickness) Agilent J&W

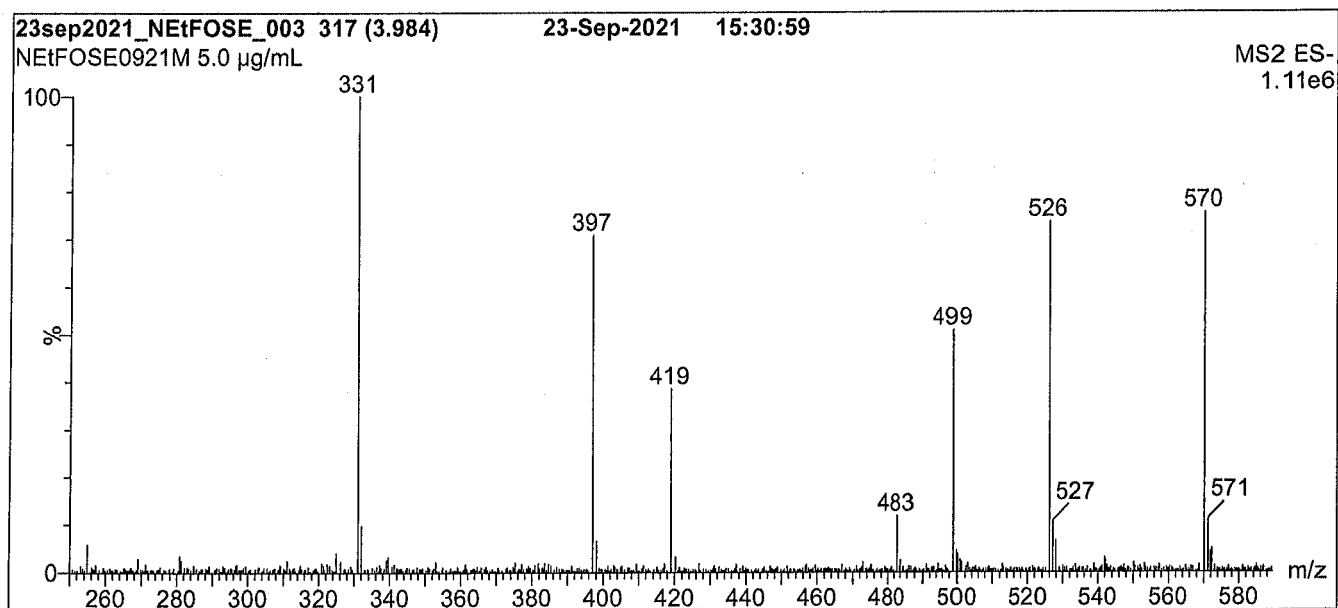
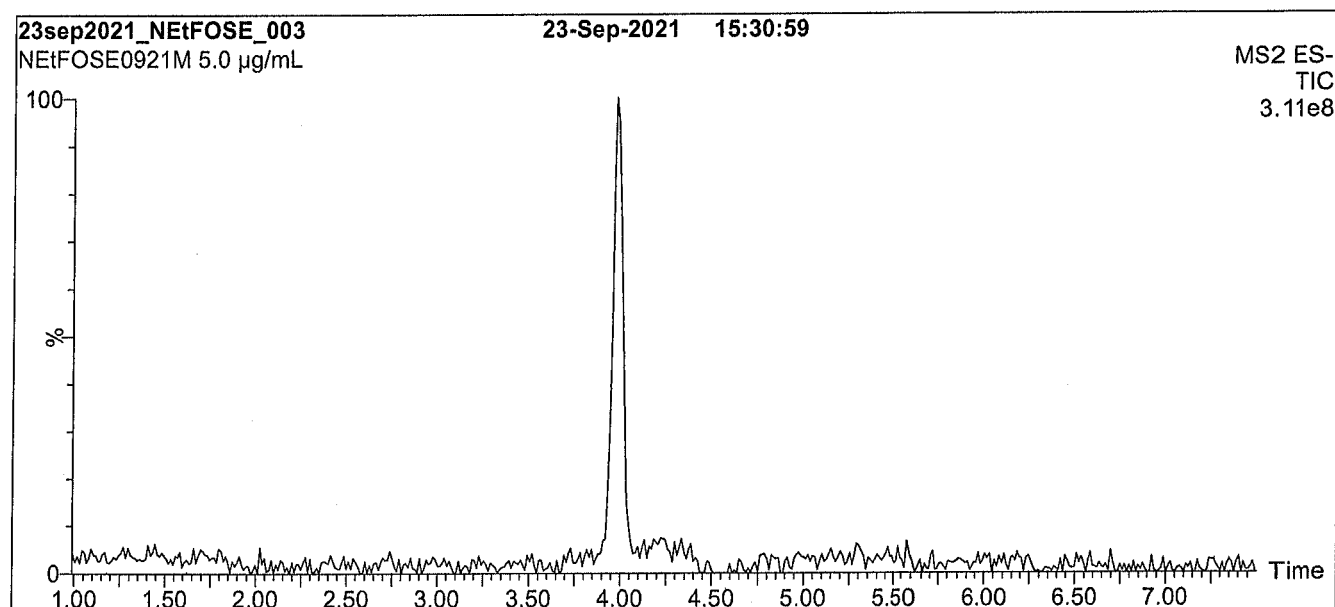
Flow: Constant at 1 mL/min

Injector: 250°C (Splitless Injection)

Oven: 100°C (5 min)
 10°C/min to 325°C
 325°C (10 min)

Ionization: EI+

Detector: 230°C
 Full Scan (50-1000 amu)

Figure 2: N-EtFOSE-M; LC/MS Data (Full Scan and Mass Spectrum)**Conditions for Figure 2:**

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

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

Mobile phase: Gradient

Start: 30% H₂O / 70% MeOH

Ramp to 90% organic over 8 min and hold for
1.5 min before returning to initial conditions in 1 min.

Time: 12 min

Flow: 300 µL/min

MS Parameters:

Experiment: Full Scan (250 - 850 amu)

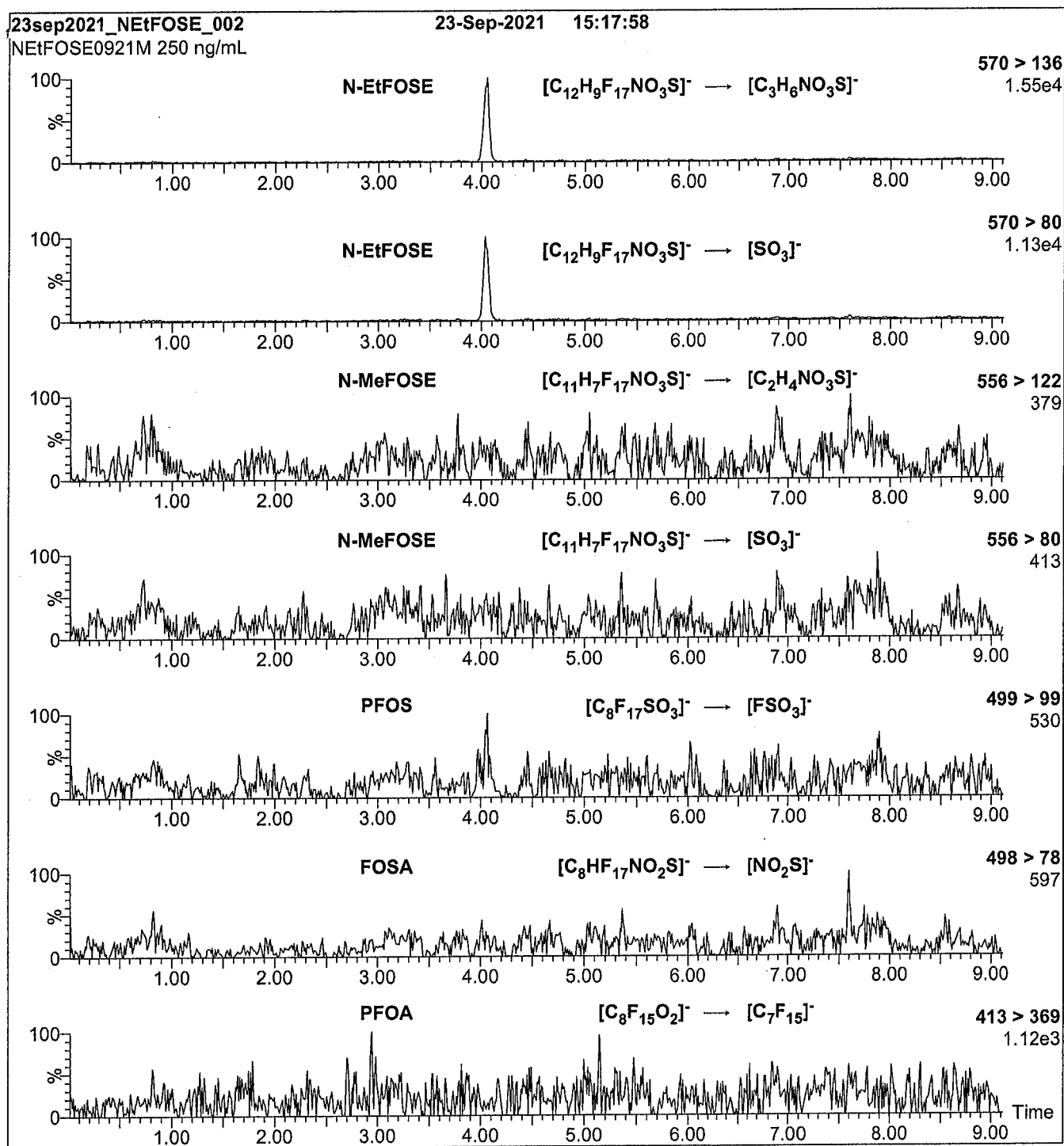
Source: Electrospray (negative)

Capillary Voltage (kV) = 2.00

Cone Voltage (V) = 65.00

Desolvation Temperature (°C) = 450

Desolvation Gas Flow (L/hr) = 1000

Figure 3: N-EtFOSE-M; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 3:**

Injection: On-column (N-EtFOSE-M)

Mobile phase: Same as Figure 2

Flow: 300 μ L/min**MS Parameters:**

Collision Gas (mbar) = 3.14e-3

Collision Energy (eV) = 32

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Analytical Standard Record

21L0006

Description: PFAS - SAS EtFOSE 50ug/mL
Standard Type: Analyte Spike
Solvent: MeOH
Final Volume (mLs): 1.2
Vials: 1
Comments: 5:3 FTCA 50.0ug/mL

Expires: 06/05/2022
Prepared: 12/07/2021
Prepared By: Hart Hedgpeth
Department: PFAS
Last Edit: 12/07/2021 17:22 by HGH

Analyte	Parent	CAS Number	Concentration	Units
N-ETFOSE		1691-99-2	50	ug/mL



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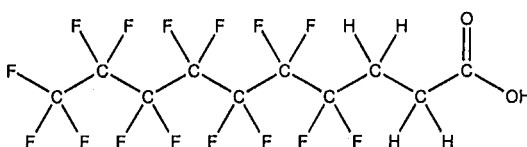
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: FHpPA
COMPOUND: 3-Perfluoroheptyl propanoic acid

LOT NUMBER: FHpPA1020

STRUCTURE:

CAS #: 812-70-4



MOLECULAR FORMULA: $C_{10}H_6F_{16}O_2$
CONCENTRATION: $50.0 \pm 2.5 \mu\text{g/mL}$
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 11/12/2020
EXPIRY DATE: (mm/dd/yyyy) 11/12/2025
RECOMMENDED STORAGE: Refrigerate ampoule

MOLECULAR WEIGHT: 442.12
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
B.G. Chittim, General Manager

Date: 11/27/2020
(mm/dd/yyyy)

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

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

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

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EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

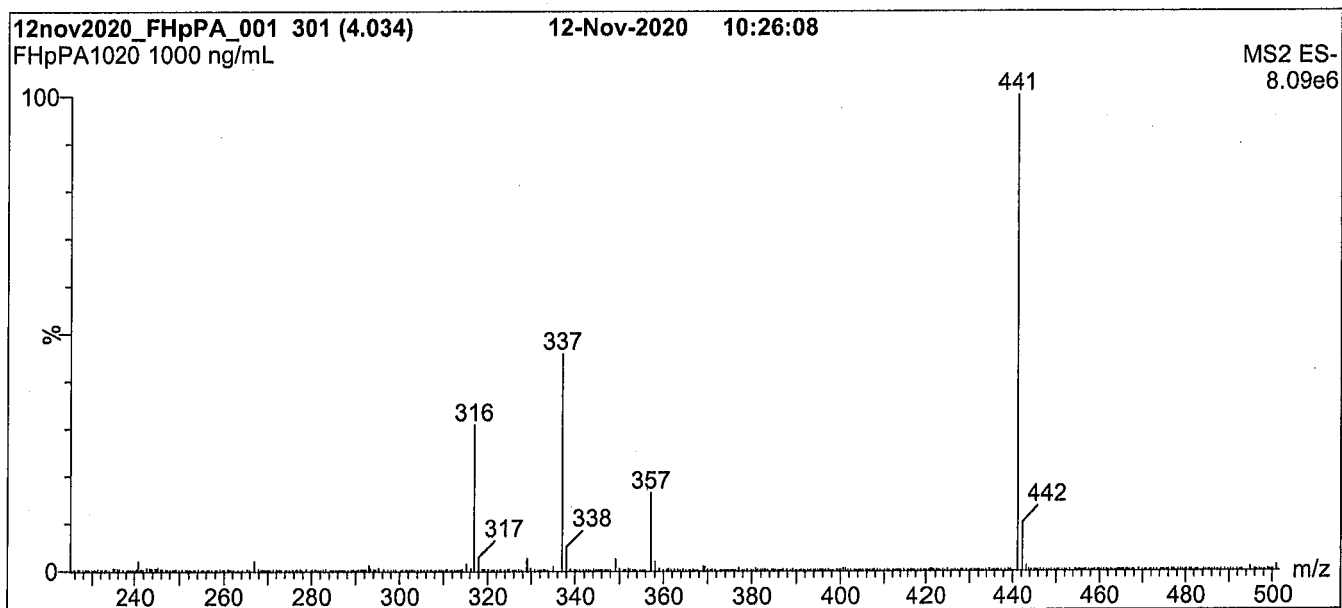
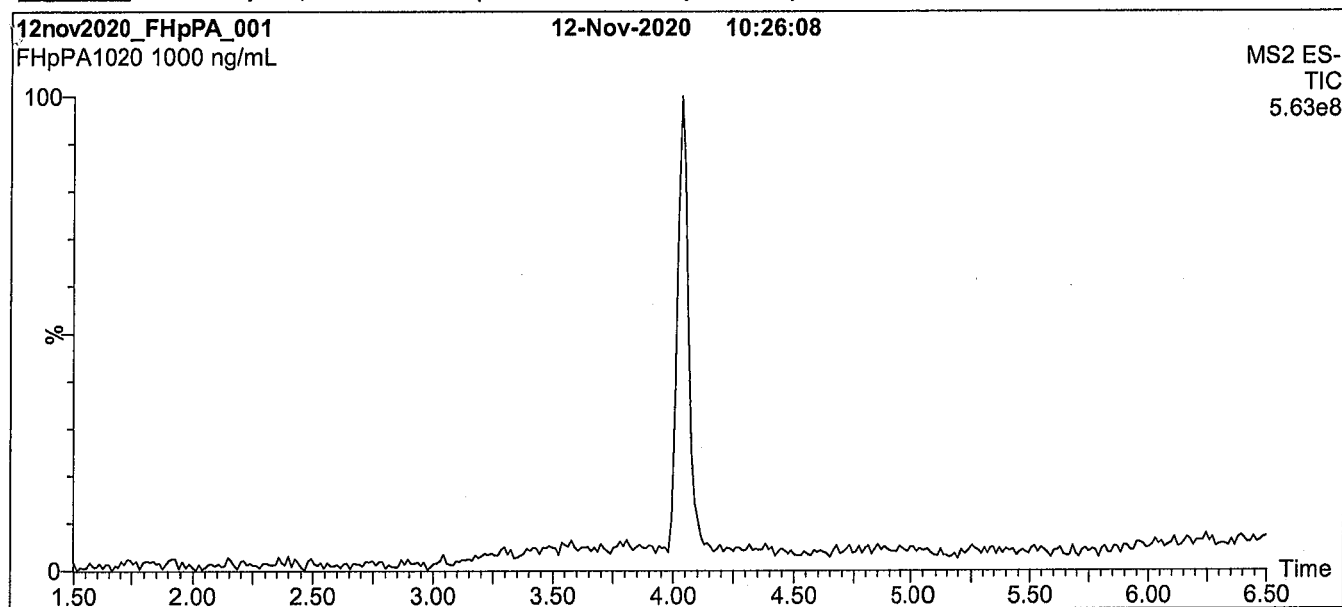
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Figure 1: FHpPA; LC/MS Data (TIC and Mass Spectrum)**Conditions for Figure 1:**

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

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

Mobile phase: Gradient

Start: 45% H₂O / 55% (80:20 MeOH:ACN)
(both with 10 mM NH₄OAc buffer)

Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.

Time: 12 min

Flow: 300 μ L/min

MS Parameters:

Experiment: Full Scan (225 - 850 amu)

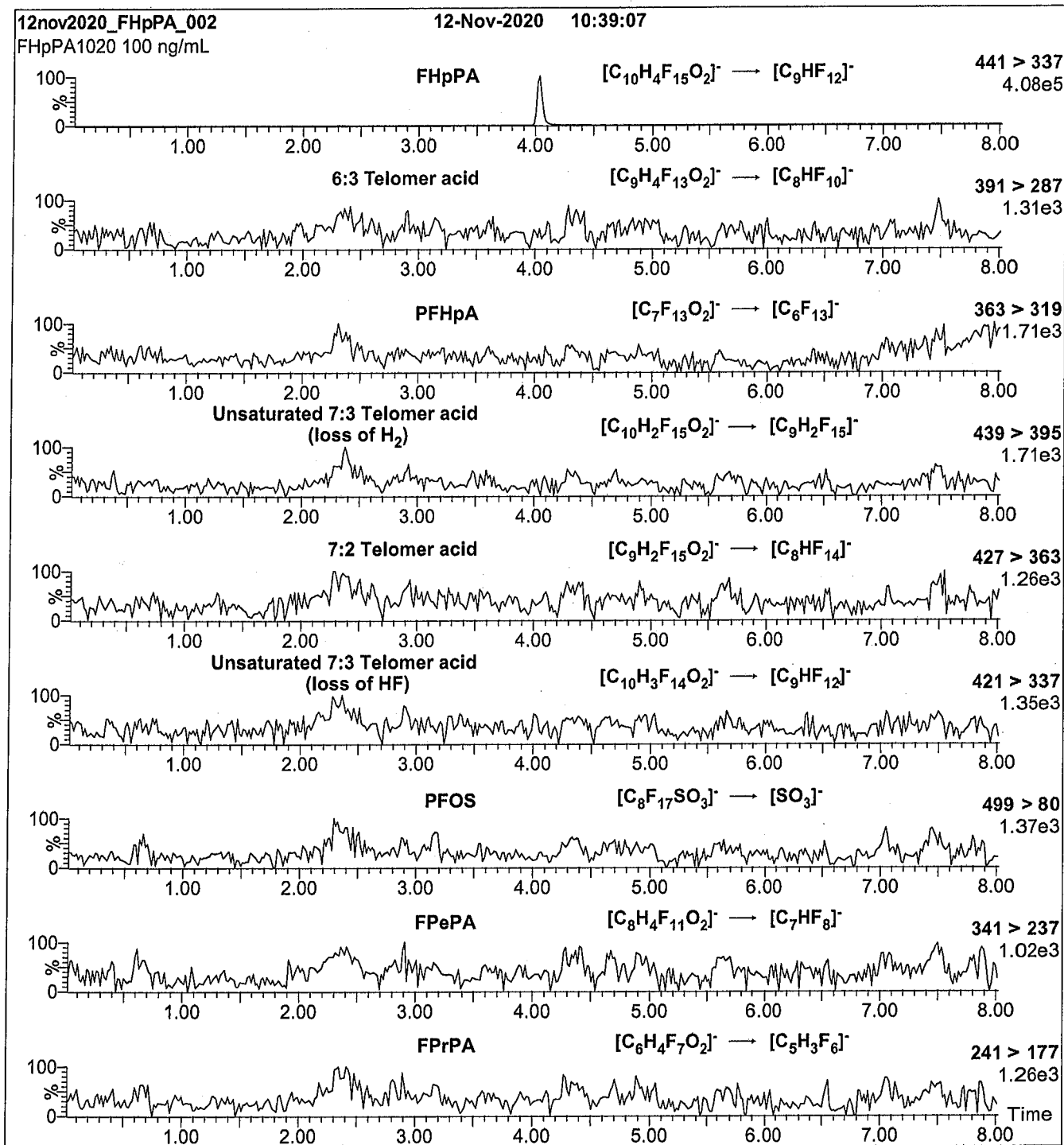
Source: Electrospray (negative)

Capillary Voltage (kV) = 0.50

Cone Voltage (V) = 28.50

Desolvation Temperature (°C) = 500

Desolvation Gas Flow (L/hr) = 1000

Figure 2: FHpPA; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 2:**

Injection: On-column (FHpPA)

Mobile phase: Same as Figure 1

Flow: 300 μ L/min**MS Parameters:**

Collision Gas (mbar) = 3.41e-3

Collision Energy (eV) = 8

Analytical Standard Record

21L0007

Description: PFAS - SAS 7:3FTA 50ug/mL
Standard Type: Analyte Spike
Solvent: MeOH
Final Volume (mLs): 1.2
Vials: 1
Comments: 7:3 FTCA 50.0ug/mL

Expires: 06/05/2022
Prepared: 12/07/2021
Prepared By: Hart Hedgpeth
Department: PFAS
Last Edit: 12/07/2021 16:16 by HGH

Analyte	Parent	CAS Number	Concentration	Units
7:3 FTA		812-70-4	50	ug/mL



WELLINGTON LABORATORIES

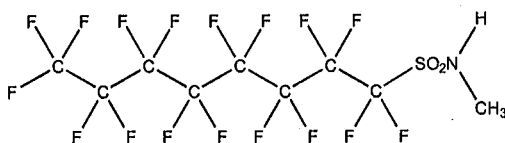
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-MeFOSA-M
COMPOUND: N-methylperfluoro-1-octanesulfonamide

LOT NUMBER: NMeFOSA0721M

STRUCTURE:

CAS #: 31506-32-8



MOLECULAR FORMULA: $C_9H_4F_{17}NO_2S$
CONCENTRATION: $50.0 \pm 2.5 \mu\text{g/mL}$
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 08/03/2021
EXPIRY DATE: (mm/dd/yyyy) 08/03/2026
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 513.17
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (Full Scan and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
B.G. Chittim, General Manager

Date: 08/04/2021
(mm/dd/yyyy)

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

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

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

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

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LIMITED WARRANTY:

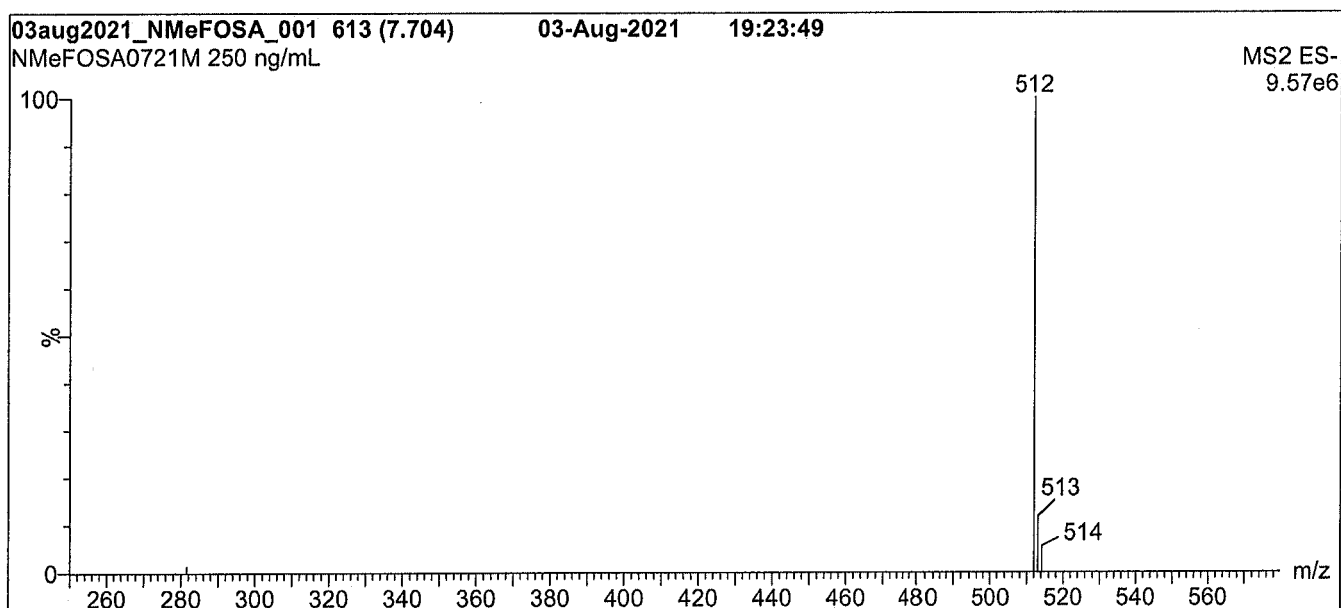
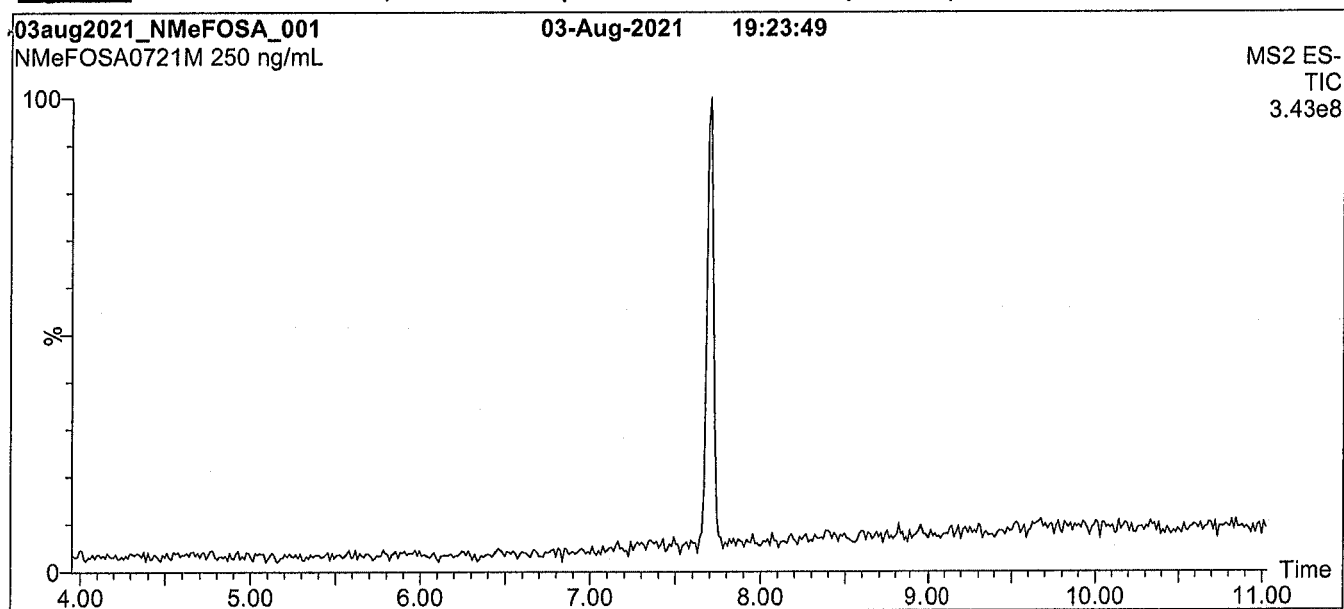
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Figure 1: N-MeFOSA-M; LC/MS Data (Full Scan and Mass Spectrum)**Conditions for Figure 1:**

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

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

Mobile phase: Gradient

Start: 40% H₂O / 60% (80:20 MeOH:ACN)
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ L/min

MS Parameters:

Experiment: Full Scan (250 - 850 amu)

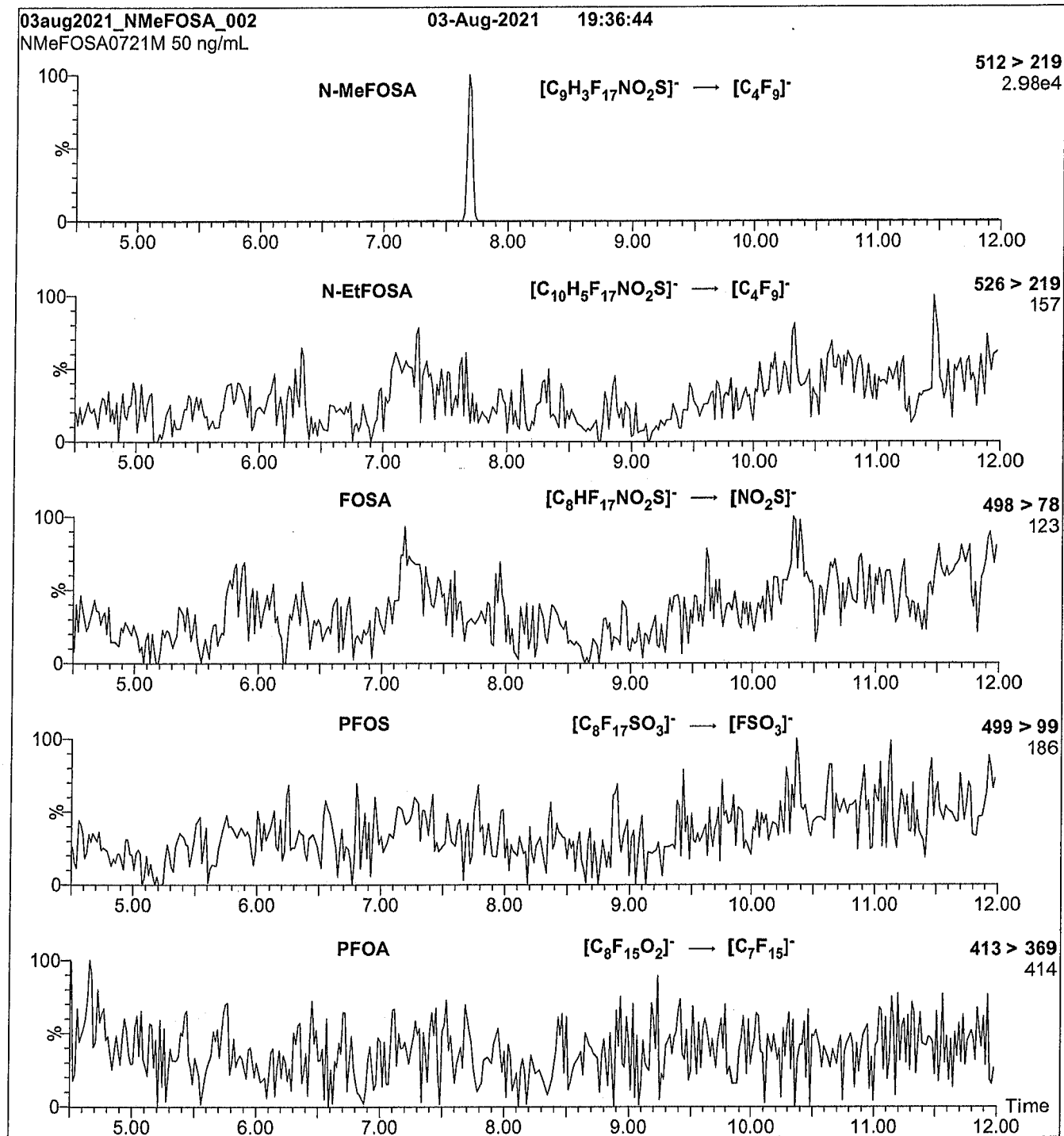
Source: Electrospray (negative)

Capillary Voltage (kV) = 1.00

Cone Voltage (V) = 44.00

Desolvation Temperature (°C) = 500

Desolvation Gas Flow (L/hr) = 1000

Figure 2: N-MeFOSA-M; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 2:**

Injection: On-column (N-MeFOSA-M)

Mobile phase: Same as Figure 1

Flow: 300 μ L/min**MS Parameters:**

Collision Gas (mbar) = 3.41e-3

Collision Energy (eV) = 24

Analytical Standard Record

21L0008

Description:	PFAS - SAS N-MeFOSA 50ug/mL	Expires:	06/05/2022
Standard Type:	Analyte Spike	Prepared:	12/07/2021
Solvent:	MeOH	Prepared By:	Hart Hedgpeth
Final Volume (mLs):	1	Department:	PFAS
Vials:	1	Last Edit:	12/07/2021 16:18 by HGH

Analyte	Parent	CAS Number	Concentration	Units
N-MEFOSA		31506-32-8	50	ug/mL



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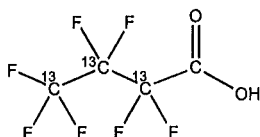
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M3PFBA
COMPOUND: Perfluoro-n-(2,3,4-¹³C₃)butanoic acid

LOT NUMBER: M3PFBA0721

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: ¹³C₃¹²CHF₇O₂
CONCENTRATION: 50.0 ± 2.5 µg/mL

MOLECULAR WEIGHT: 217.02
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

ISOTOPIC PURITY: ≥99%¹³C
(2,3,4-¹³C₃)

LAST TESTED: (mm/dd/yyyy) 08/19/2021

EXPIRY DATE: (mm/dd/yyyy) 08/19/2026

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (Full Scan and Mass Spectrum)

Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~0.2% of perfluoro-n-(¹³C₃)propanoic acid and also contains ~1.0% of perfluoro-n-(1,2,3,4-¹³C₄)butanoic acid due to the naturally occurring isotopic abundance of ¹³C in the unlabelled carbon atom.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
B.G. Chittim, General Manager

Date: 08/25/2021
(mm/dd/yyyy)

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

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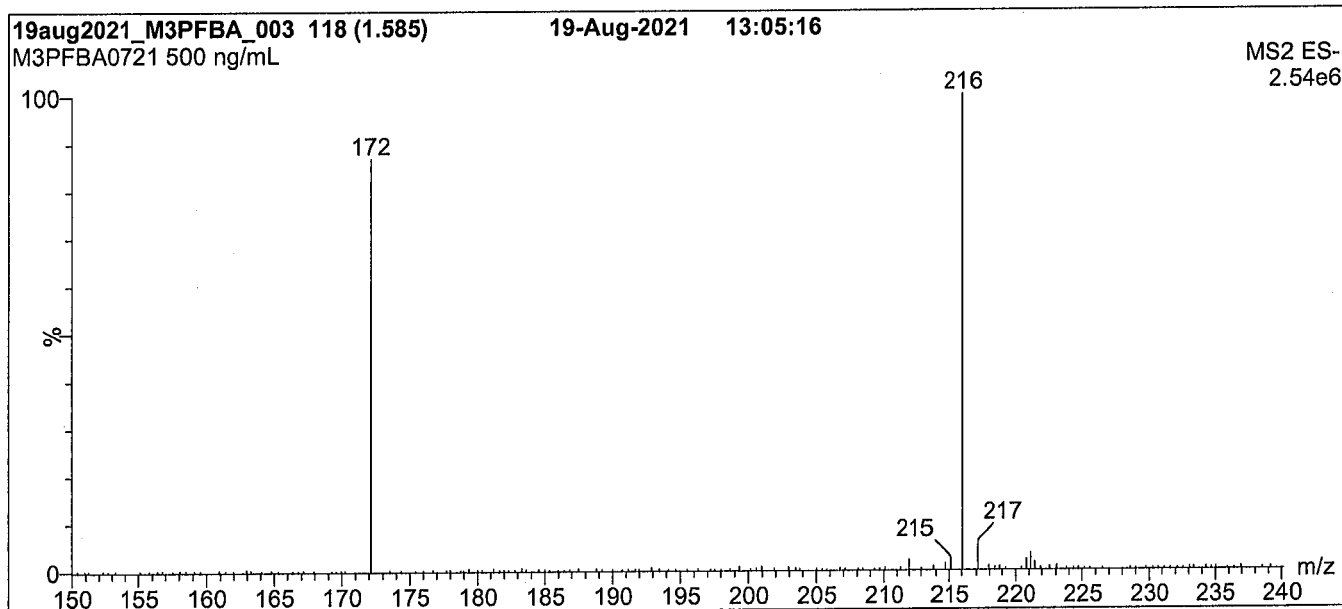
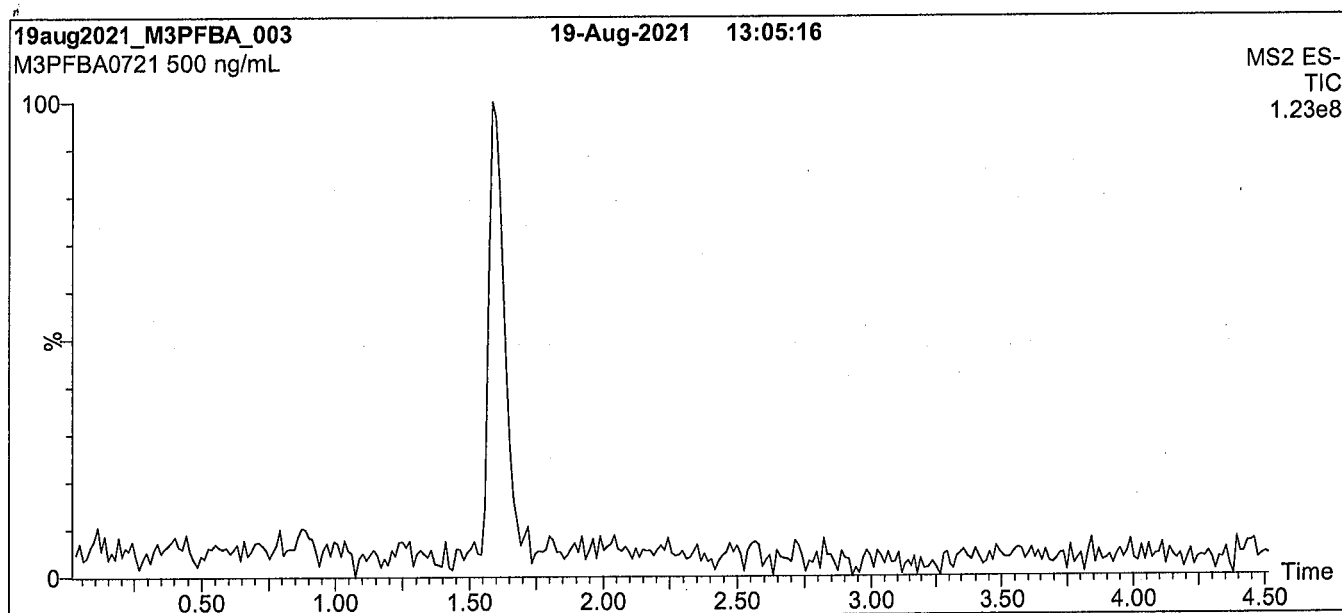
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Waters Xevo TQ-S micro MS

Chromatographic Conditions:

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1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient

Start: 60% H₂O / 40% (80:20 MeOH:ACN)
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.5 min.
Time: 12 min

Flow: 300 μ L/min

MS Parameters:

Experiment: Full Scan (150 - 850 amu)

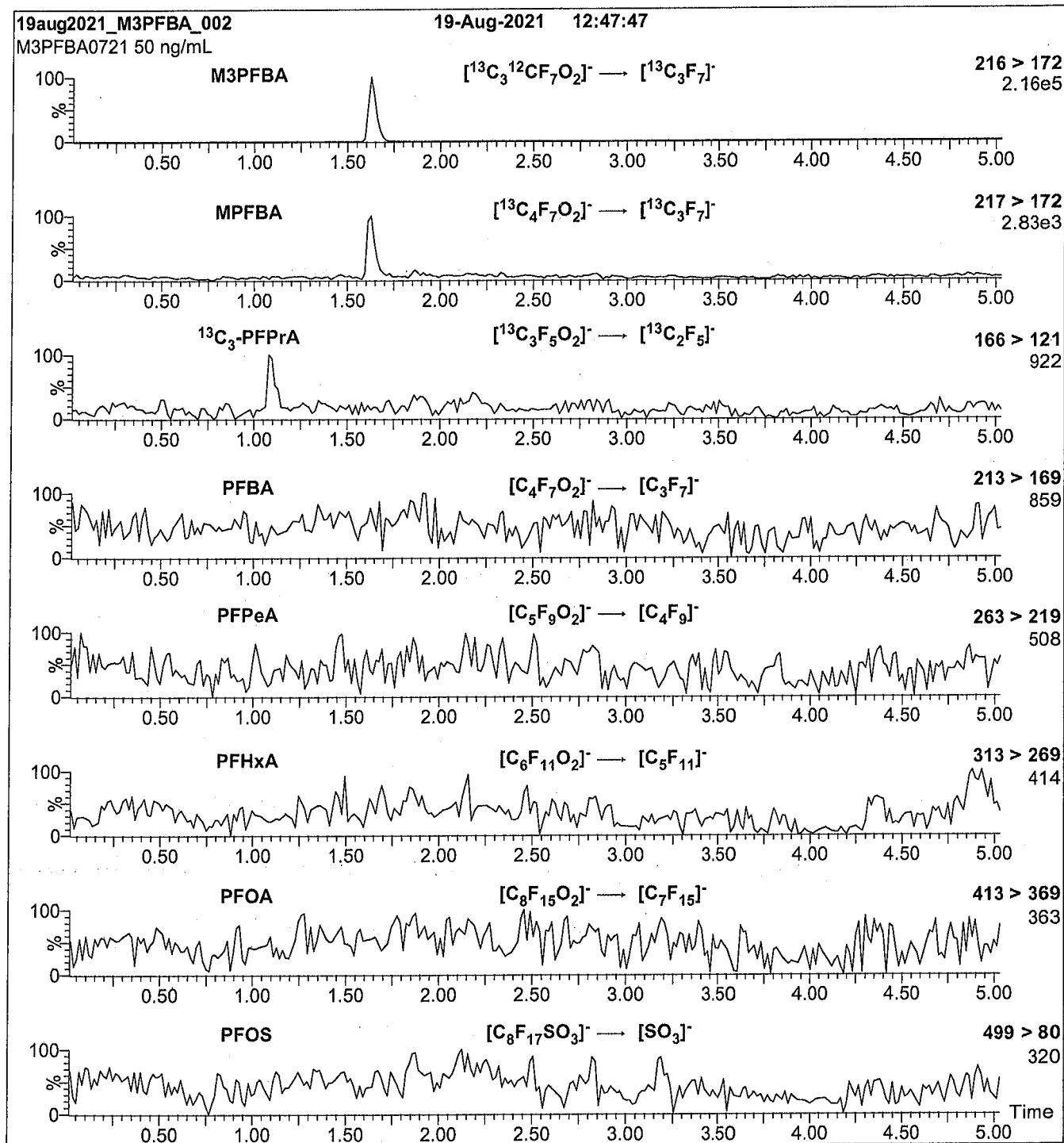
Source: Electrospray (negative)

Capillary Voltage (kV) = 2.00

Cone Voltage (V) = 10.00

Desolvation Temperature (°C) = 500

Desolvation Gas Flow (L/hr) = 1000

Figure 2: M3PFBA; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 2:**

Injection: On-column (M3PFBA)

Mobile phase: Same as Figure 1

Flow: 300 $\mu\text{L}/\text{min}$ **MS Parameters:**

Collision Gas (mbar) = 3.45e-3

Collision Energy (eV) = 8

Analytical Standard Record

22A0116

Description: PFAS - IIS M3PFBA 50ug/mL

Expires: 08/19/2026

Standard Type: Analyte Spike

Prepared: 08/19/2021

Solvent: MeOH

Prepared By: Dipti Gokal

Final Volume (mLs): 1.2

Department: PFAS

Vials: 1

Last Edit: 01/20/2022 15:48 by HGH

Analyte	Parent	CAS Number	Concentration	Units
13C3-PFBA		13C3-PFBA	50	ug/mL



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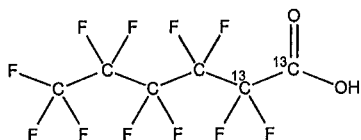
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFHxA
COMPOUND: Perfluoro-n-(1,2-¹³C₂)hexanoic acid

LOT NUMBER: MPFHxA0921

STRUCTURE:

CAS #: 960315-47-3



MOLECULAR FORMULA: ¹³C₂¹²C₄HF₁₁O₂
CONCENTRATION: 50.0 ± 2.5 µg/mL

MOLECULAR WEIGHT: 316.04
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

ISOTOPIC PURITY: ≥99% ¹³C
(1,2-¹³C₂)

LAST TESTED: (mm/dd/yyyy) 10/04/2021

EXPIRY DATE: (mm/dd/yyyy) 10/04/2026

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (Full Scan and Mass Spectrum)

Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

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

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Certified By: 
B.G. Chittim, General Manager

Date: 10/22/2021
(mm/dd/yyyy)

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519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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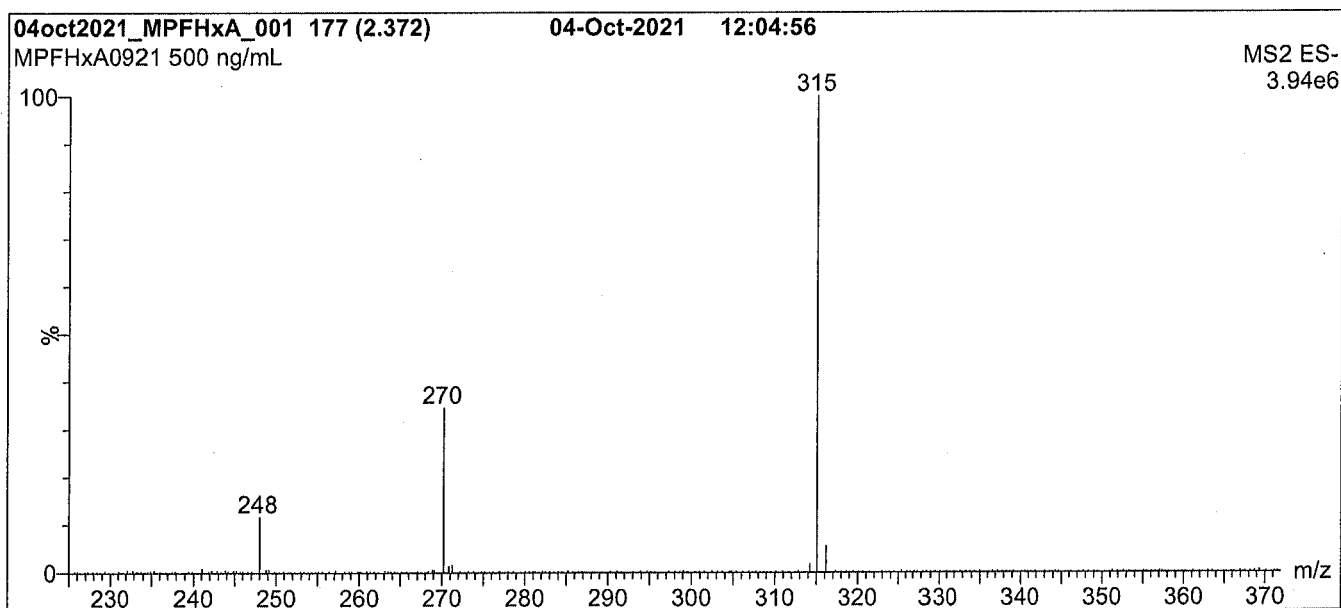
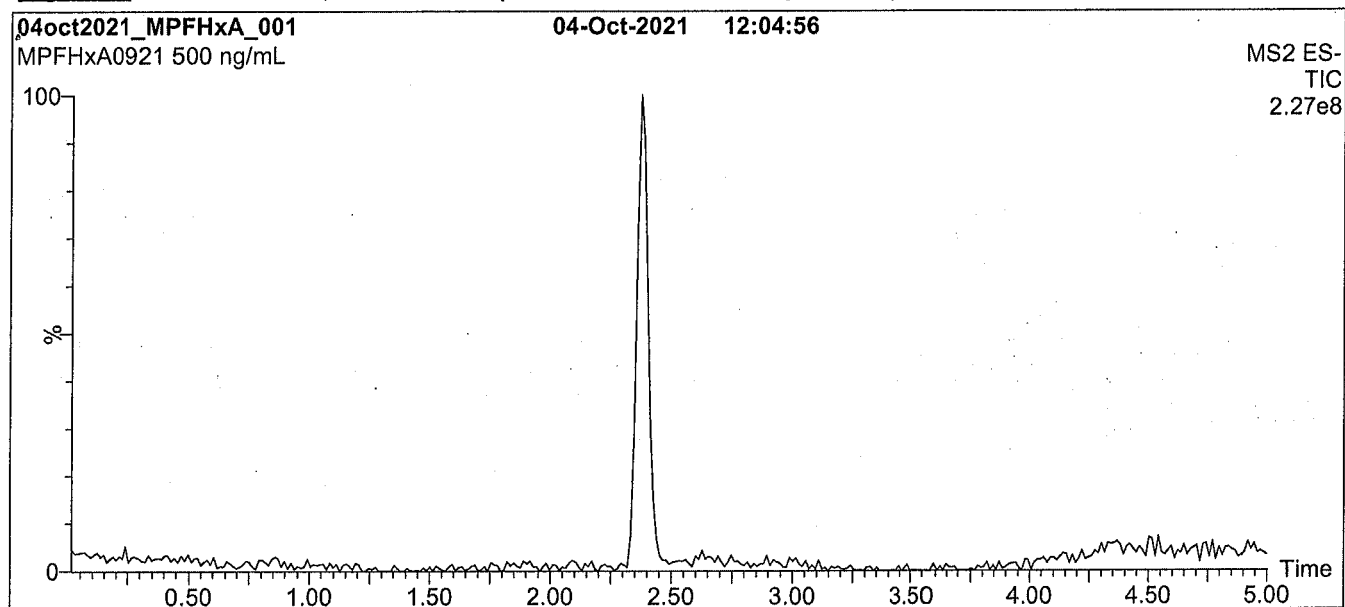
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Waters Xevo TQ-S micro MS

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1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient

Start: 50% H₂O / 50% (80:20 MeOH:ACN)
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
2 min before returning to initial conditions in 1 min.
Time: 12 min

Flow: 300 μ L/min

MS Parameters:

Experiment: Full Scan (225 - 850 amu)

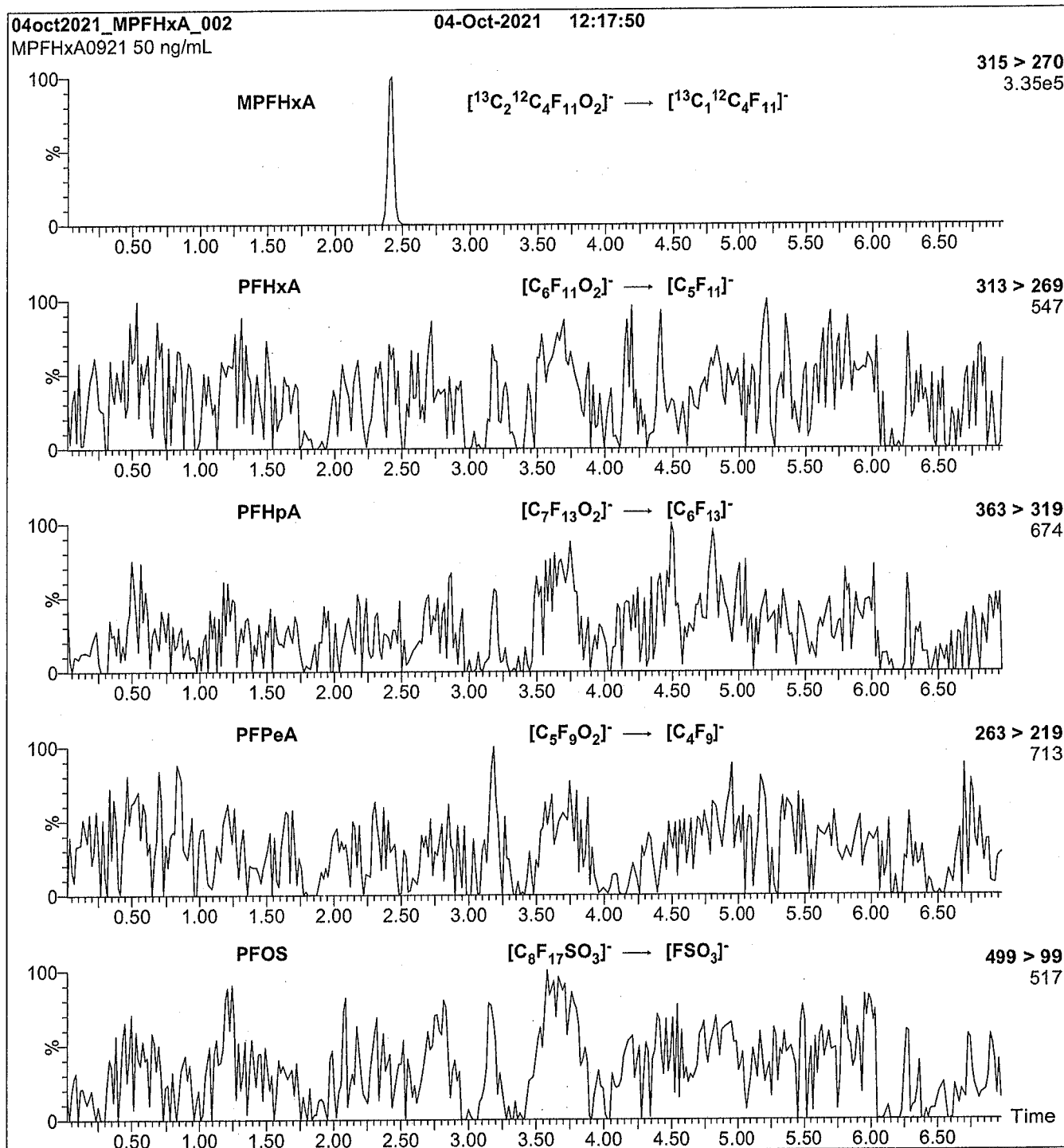
Source: Electrospray (negative)

Capillary Voltage (kV) = 2.00

Cone Voltage (V) = 10.00

Desolvation Temperature (°C) = 500

Desolvation Gas Flow (L/hr) = 1000

Figure 2: MPFHxA; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 2:**

Injection: On-column (MPFHxA)

Mobile phase: Same as Figure 1

Flow: 300 $\mu\text{L}/\text{min}$ **MS Parameters:**

Collision Gas (mbar) = 3.31e-3

Collision Energy (eV) = 8

Analytical Standard Record

22A0117

Description: PFAS - IIS MPFHxA 50ug/mL
Standard Type: Analyte Spike
Solvent: MeOH
Final Volume (mLs): 1.2
Vials: 1

Expires: 10/04/2026
Prepared: 10/04/2021
Prepared By: Dipti Gokal
Department: PFAS
Last Edit: 01/20/2022 15:48 by HGH

Analyte	Parent	CAS Number	Concentration	Units
13C2-PFHxA		13C2-PFHxA	50	ug/mL

Analytical Standard Record

22A0117

Description: PFAS - IIS MPFHxA 50ug/mL
Standard Type: Analyte Spike
Solvent: MeOH
Final Volume (mLs): 1.2
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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

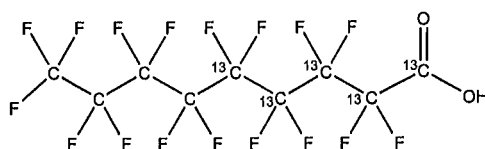
MPFNA

LOT NUMBER:

MPFNA1021

COMPOUND:Perfluoro-n-(1,2,3,4,5-¹³C₅)nonanoic acid**STRUCTURE:****CAS #:**

960315-49-5

**MOLECULAR FORMULA:**¹³C₅¹²C₄HF₁₇O₂**MOLECULAR WEIGHT:**

469.04

CONCENTRATION:

50.0 ± 2.5 µg/mL

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:≥99% ¹³C(1,2,3,4,5-¹³C₅)**LAST TESTED:** (mm/dd/yyyy)

10/29/2021

EXPIRY DATE: (mm/dd/yyyy)

10/29/2026

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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ADDITIONAL INFORMATION:

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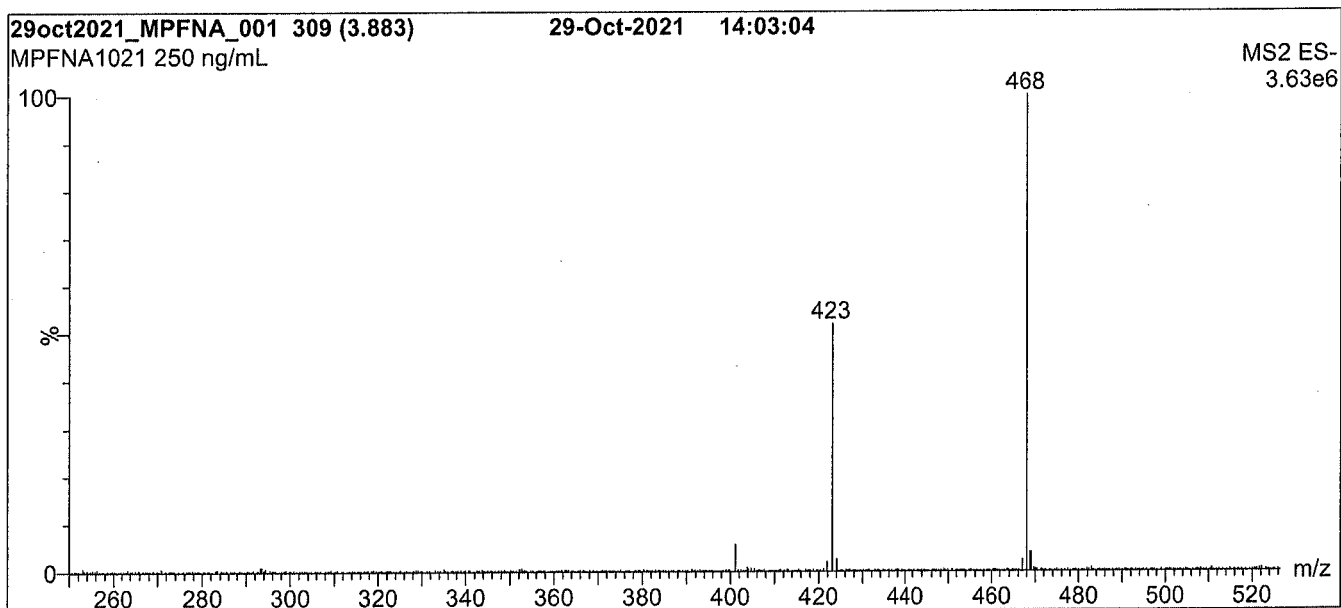
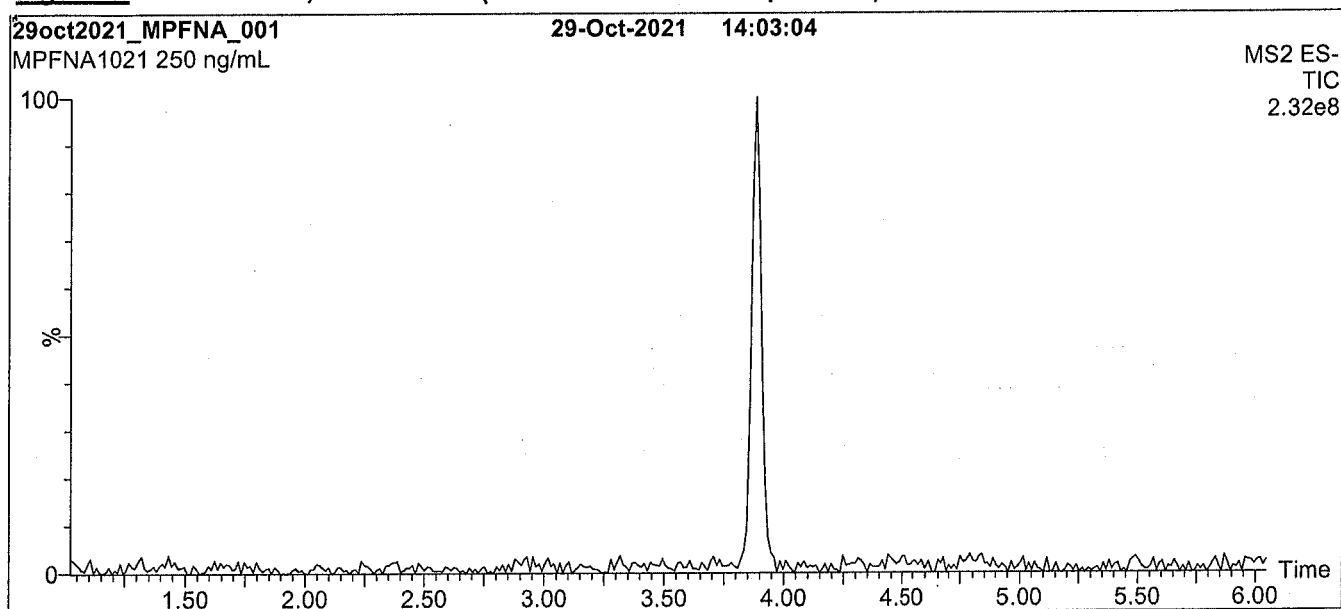
At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

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Figure 1: MPFNA; LC/MS Data (Full Scan and Mass Spectrum)**Conditions for Figure 1:**

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

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

Mobile phase: Gradient

Start: 40% H₂O / 60% (80:20 MeOH:ACN)
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ L/min

MS Parameters:

Experiment: Full Scan (250 - 850 amu)

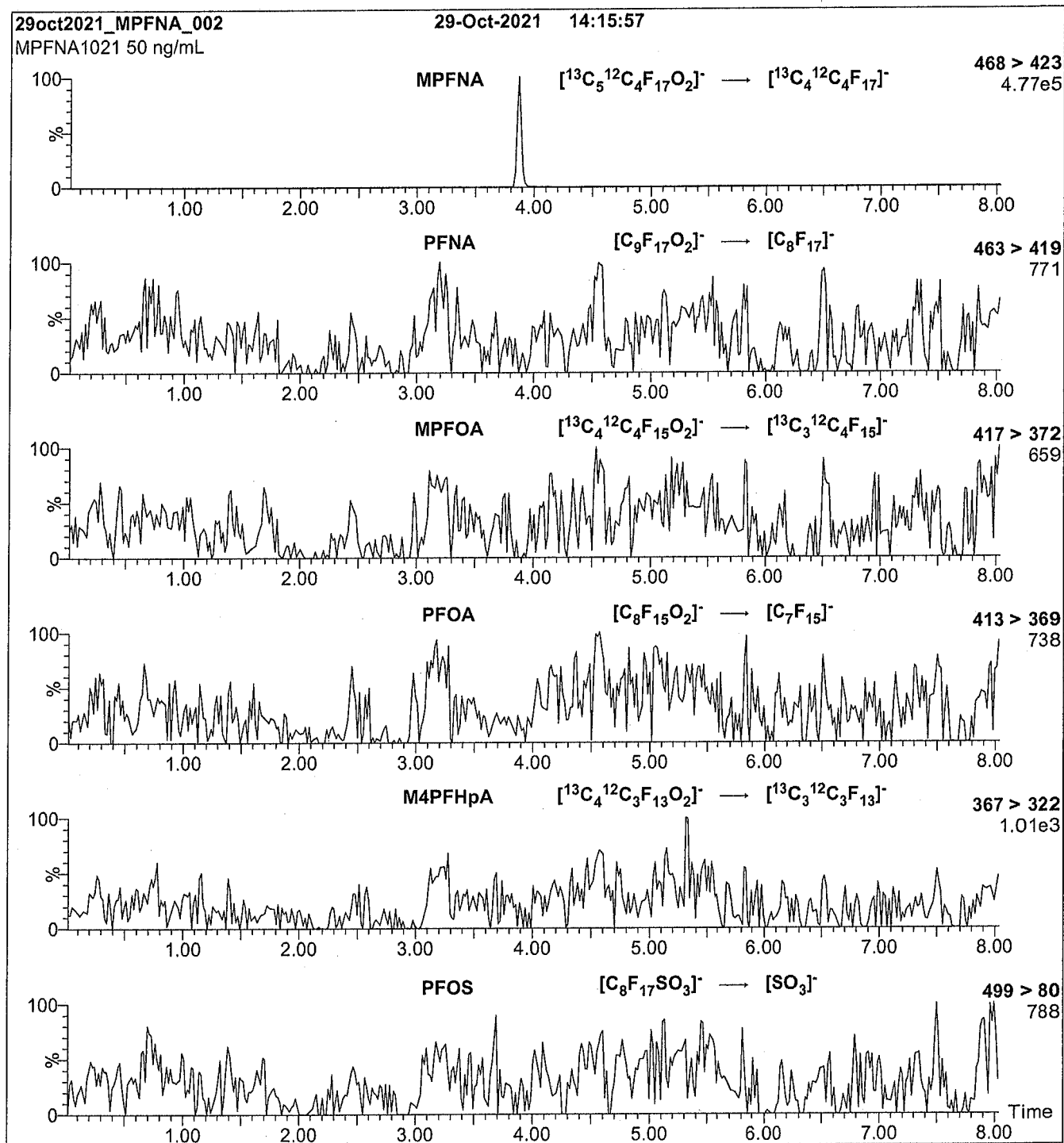
Source: Electrospray (negative)

Capillary Voltage (kV) = 2.00

Cone Voltage (V) = 10.00

Desolvation Temperature (°C) = 500

Desolvation Gas Flow (L/hr) = 1000

Figure 2: MPFNA; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 2:**

Injection: On-column (MPFNA)

Mobile phase: Same as Figure 1

Flow: 300 $\mu\text{L}/\text{min}$ **MS Parameters:**

Collision Gas (mbar) = 3.16e-3

Collision Energy (eV) = 10

Analytical Standard Record

22A0118

Description: PFAS - IIS MPFNA 50ug/mL
Standard Type: Analyte Spike
Solvent: MeOH
Final Volume (mLs): 1.2
Vials: 1

Expires: 10/29/2026
Prepared: 10/29/2021
Prepared By: Dipti Gokal
Department: PFAS
Last Edit: 01/20/2022 15:48 by HGH

Analyte	Parent	CAS Number	Concentration	Units
13C5-PFNA		13C5-PFNA	50	ug/mL

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22A0118

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WELLINGTON LABORATORIES

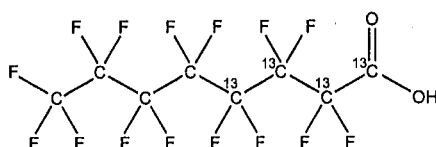
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFOA
COMPOUND: Perfluoro-n-(1,2,3,4-¹³C₄)octanoic acid

LOT NUMBER: MPFOA1121

STRUCTURE:

CAS #: 960315-48-4



MOLECULAR FORMULA: ¹³C₄¹²C₄HF₁₅O₂
CONCENTRATION: 50.0 ± 2.5 µg/mL

MOLECULAR WEIGHT: 418.04
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 12/07/2021
EXPIRY DATE: (mm/dd/yyyy) 12/07/2026

ISOTOPIC PURITY: ≥99% ¹³C
(1,2,3,4-¹³C₄)

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (Full Scan and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
B.G. Chittim, General Manager

Date: 12/20/2021
(mm/dd/yyyy)

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

INTENDED USE:

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HANDLING:

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

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

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LIMITED WARRANTY:

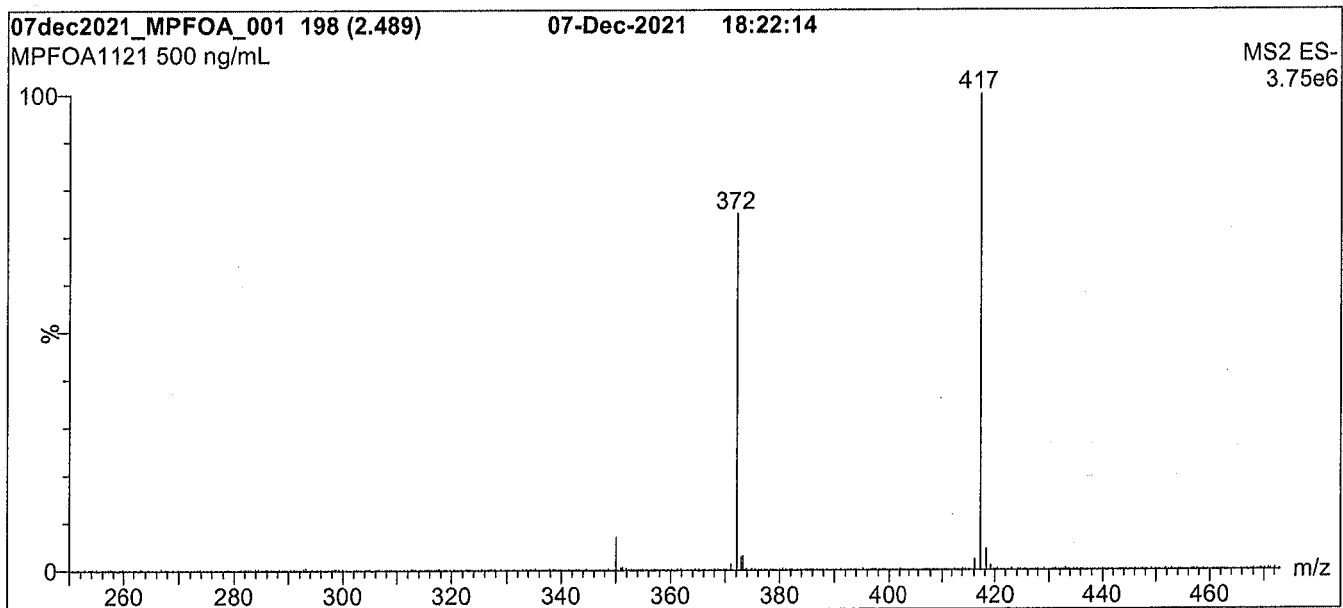
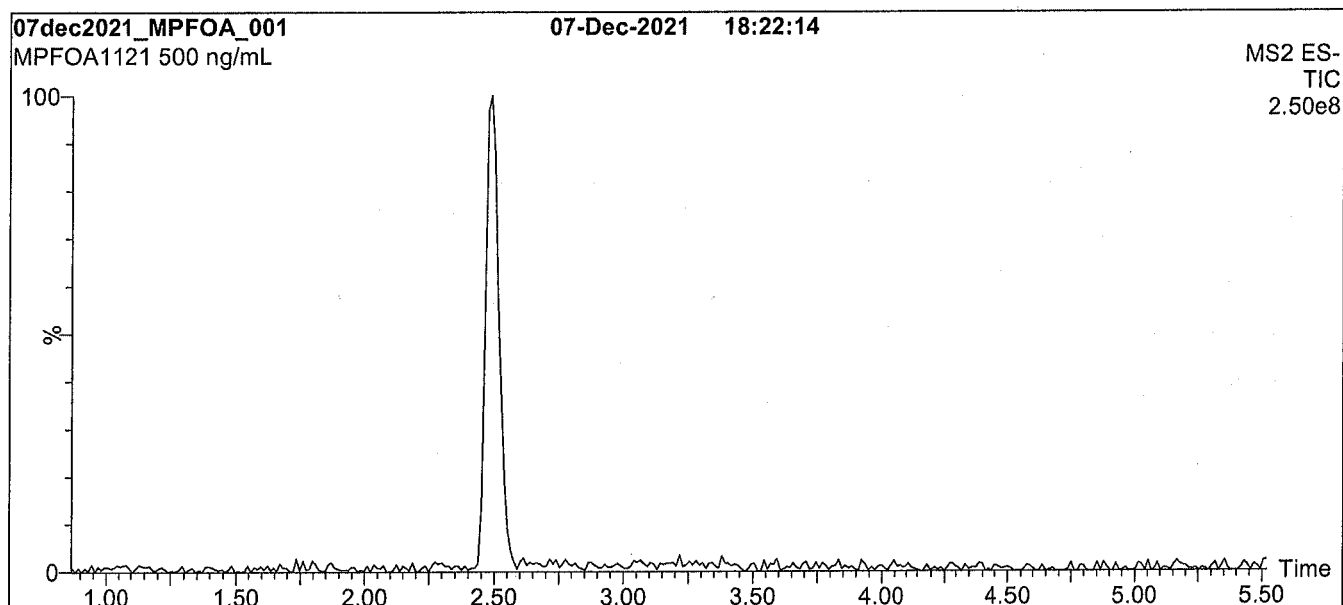
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Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

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1.7 μ m, 2.1 x 100 mm

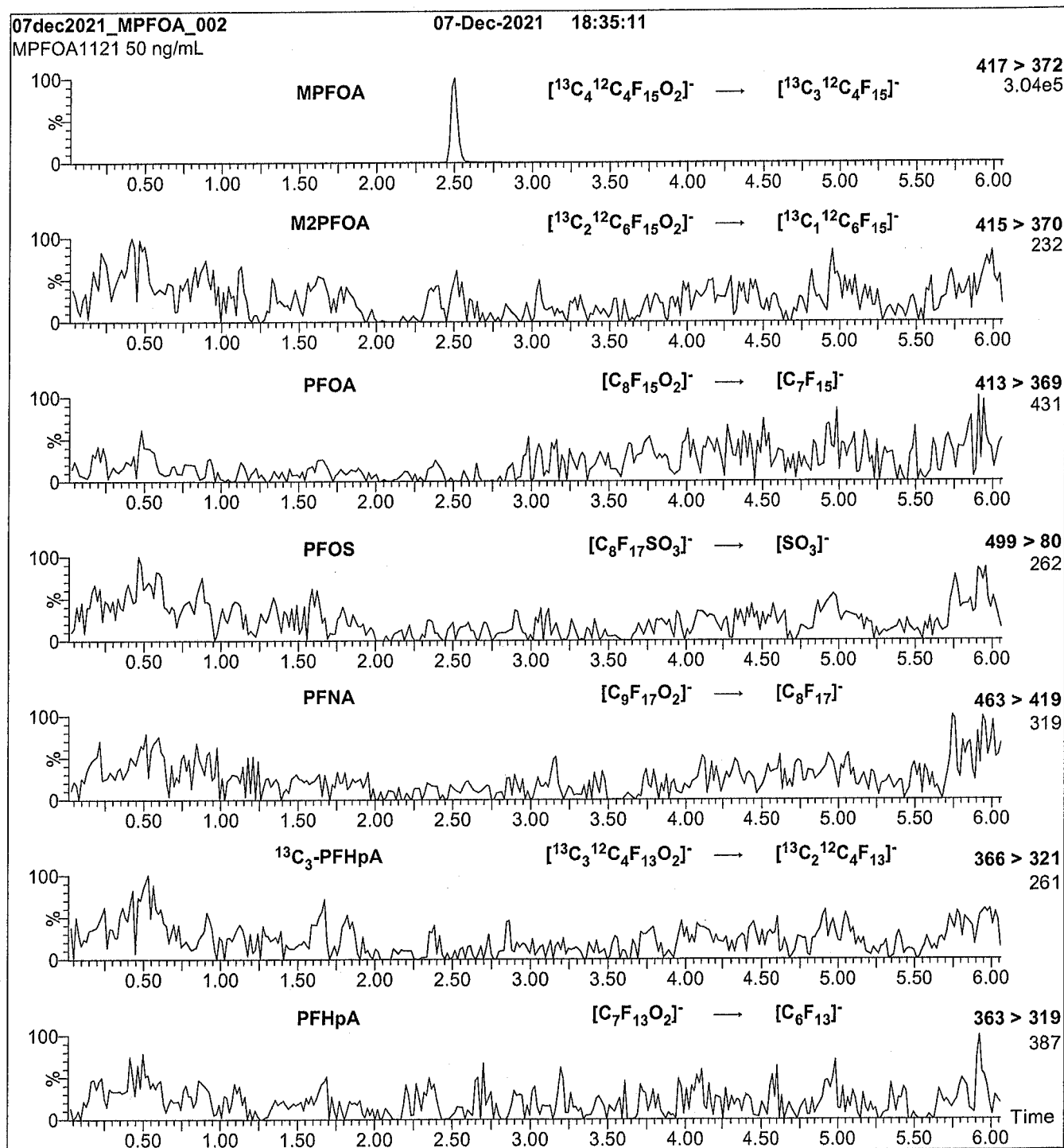
Mobile phase: Gradient
Start: 40% H₂O / 60% (80:20 MeOH:ACN)
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for 2 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ L/min

MS Parameters:

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (L/hr) = 1000

Figure 2: MPFOA; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 2:**

Injection: On-column (MPFOA)

Mobile phase: Same as Figure 1

Flow: 300 $\mu\text{L}/\text{min}$ **MS Parameters:**

Collision Gas (mbar) = 3.39e-3

Collision Energy (eV) = 8

Analytical Standard Record

22A0119

Description: PFAS - IIS MPFOA 50ug/mL
Standard Type: Analyte Spike
Solvent: MeOH
Final Volume (mLs): 1.2
Vials: 1

Expires: 12/07/2026
Prepared: 12/07/2021
Prepared By: Dipti Gokal
Department: PFAS
Last Edit: 01/20/2022 15:48 by HGH

Analyte	Parent	CAS Number	Concentration	Units
13C4-PFOA		13C4-PFOA	50	ug/mL



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

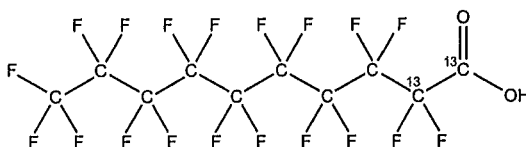
MPFDA

LOT NUMBER:

MPFDA1221

COMPOUND:Perfluoro-n-(1,2-¹³C₂)decanoic acid**STRUCTURE:****CAS #:**

960315-50-8

**MOLECULAR FORMULA:**¹³C₂¹²C₈H₁₉O₂**MOLECULAR WEIGHT:**

516.07

CONCENTRATION:

50.0 ± 2.5 µg/mL

SOLVENT(S):

Methanol

Water (<1%)

CHEMICAL PURITY:

>98%

ISOTOPIC PURITY:≥99% ¹³C**LAST TESTED:** (mm/dd/yyyy)

12/08/2021

(1,2-¹³C₂)**EXPIRY DATE:** (mm/dd/yyyy)

12/08/2026

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (Full Scan and Mass Spectrum)

Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

Date:

12/13/2021

(mm/dd/yyyy)

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

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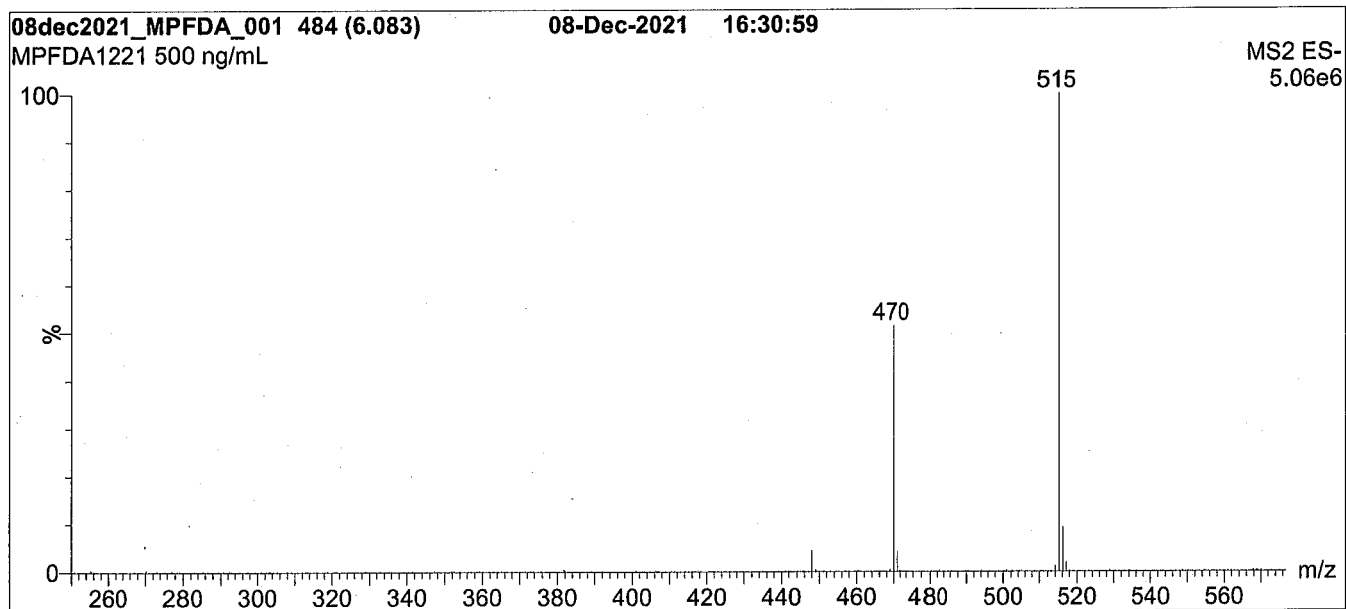
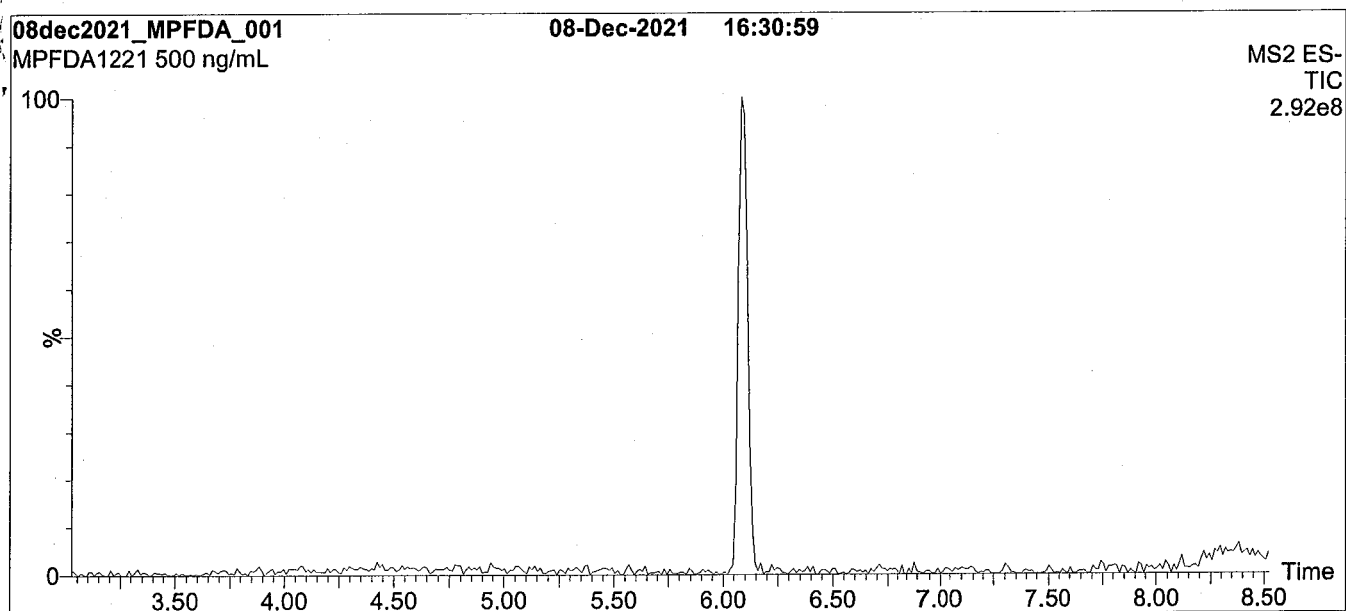
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Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

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

Mobile phase: Gradient

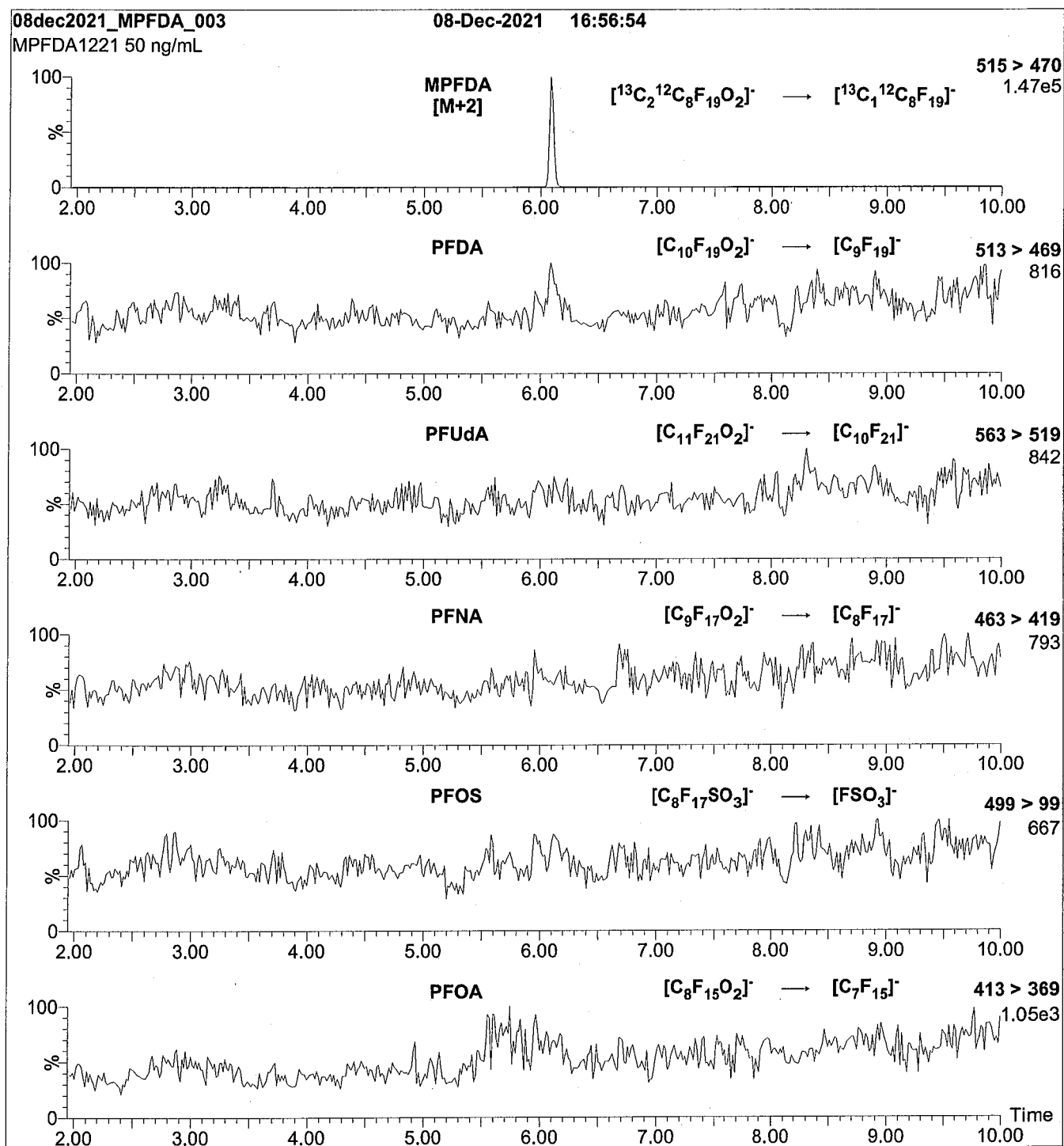
Start: 50% H₂O / 50% (80:20 MeOH:ACN)
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 9 min and hold for
1 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ L/min

MS Parameters:

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (L/hr) = 1000

Figure 2: MPFDA; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 2:**

Injection: On-column (MPFDA)

Mobile phase: Same as Figure 1

Flow: 300 μ L/min**MS Parameters:**

Collision Gas (mbar) = 3.39e-3

Collision Energy (eV) = 10

Analytical Standard Record

22A0120

Description: PFAS - IIS MPFDA 50ug/mL
Standard Type: Analyte Spike
Solvent: MeOH
Final Volume (mLs): 1.2
Vials: 1

Expires: 12/08/2026
Prepared: 12/08/2021
Prepared By: Dipti Gokal
Department: PFAS
Last Edit: 01/20/2022 15:49 by HGH

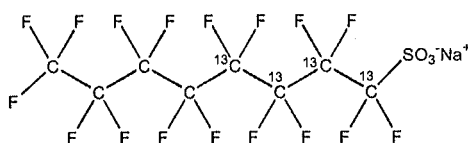
Analyte	Parent	CAS Number	Concentration	Units
13C2-PFDA		13C2-PFDA	50	ug/mL



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFOS **LOT NUMBER:** MPFOS0821
COMPOUND: Sodium perfluoro-1-(1,2,3,4-¹³C₄)octanesulfonate
STRUCTURE: **CAS #:** 960315-53-1



MOLECULAR FORMULA: ¹³C₄¹²C₄F₁₇SO₃Na **MOLECULAR WEIGHT:** 526.08
CONCENTRATION: 50.0 ± 2.5 µg/mL (Na salt) **SOLVENT(S):** Methanol
 47.9 ± 2.4 µg/mL (MPFOS acid)
 47.8 ± 2.4 µg/mL (MPFOS anion)
CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥99% ¹³C
LAST TESTED: (mm/dd/yyyy) 08/18/2021 (1,2,3,4-¹³C₄)
EXPIRY DATE: (mm/dd/yyyy) 08/18/2026
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (Full Scan and Mass Spectrum)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~0.4% sodium perfluoro-1-(¹³C₃)heptanesulfonate.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chittim, General Manager

Date: 08/19/2021
 (mm/dd/yyyy)

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

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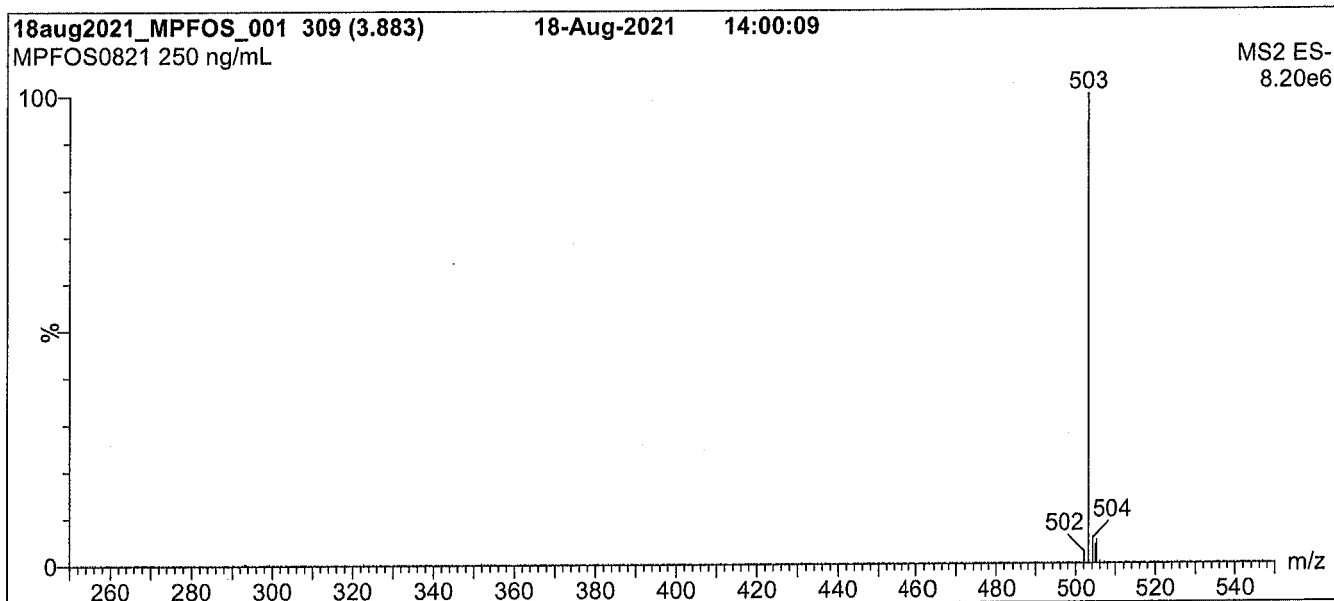
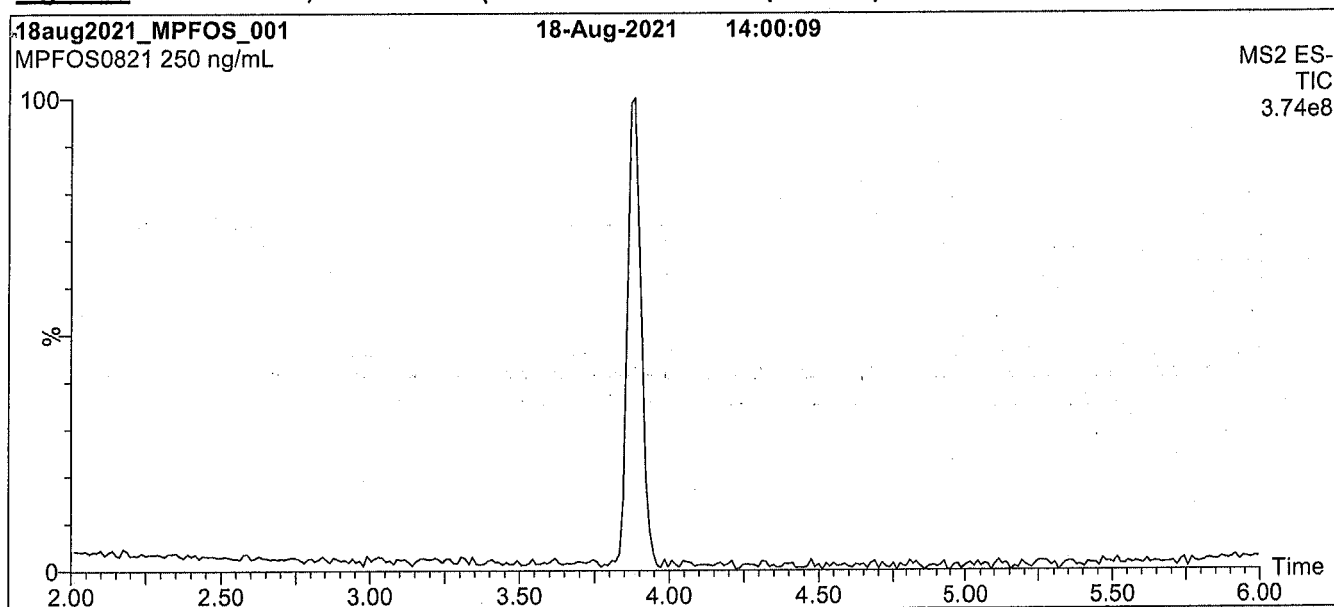
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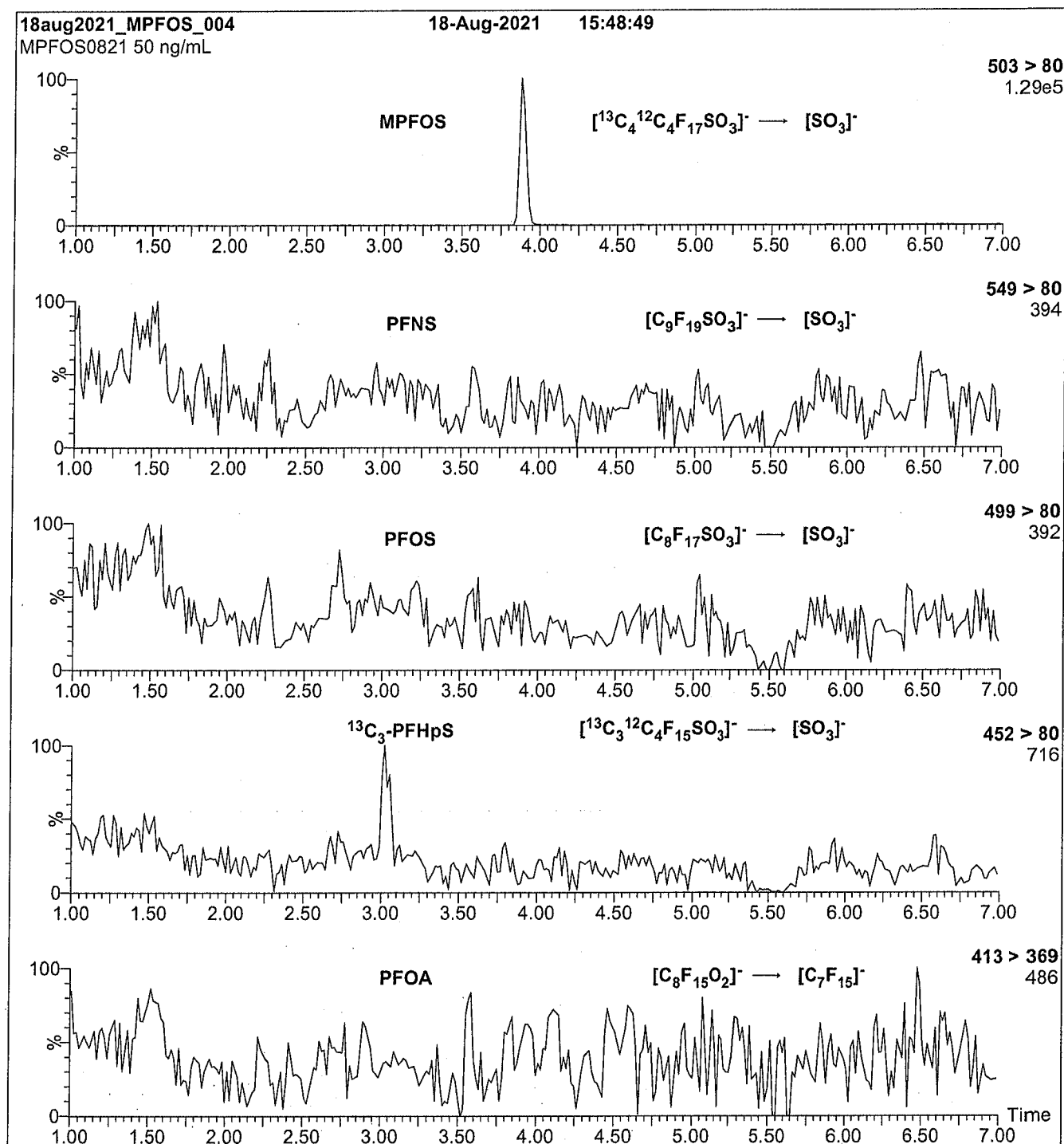
Mobile phase: Gradient
Start: 40% H₂O / 60% (80:20 MeOH:ACN)
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ L/min

MS Parameters:

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
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Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (L/hr) = 1000

Figure 2: MPFOS; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 2:**

Injection: On-column (MPFOS)

Mobile phase: Same as Figure 1

Flow: 300 $\mu\text{L}/\text{min}$ **MS Parameters:**

Collision Gas (mbar) = 3.39e-3

Collision Energy (eV) = 42

Analytical Standard Record

22A0121

Description: PFAS - IIS MPFOS 50ug/mL
Standard Type: Analyte Spike
Solvent: MeOH
Final Volume (mLs): 1.2
Vials: 1

Expires: 08/18/2026
Prepared: 08/18/2021
Prepared By: Dipti Gokal
Department: PFAS
Last Edit: 01/20/2022 15:49 by HGH

Analyte	Parent	CAS Number	Concentration	Units
13C4-PFOS		13C4-PFOS	50	ug/mL



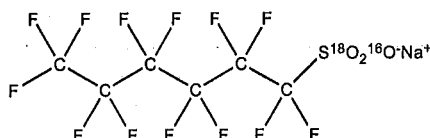
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFHxS
COMPOUND: Sodium perfluoro-1-hexane(¹⁸O₂)sulfonate

LOT NUMBER: MPFHxS1021

STRUCTURE:



CAS #: 1585941-14-5

MOLECULAR FORMULA: C₆F₁₃S¹⁸O₂¹⁶ONa
CONCENTRATION: 50.0 ± 2.5 µg/mL (Na salt)
47.4 ± 2.4 µg/mL (MPFHxS acid)
47.3 ± 2.4 µg/mL (MPFHxS anion)

MOLECULAR WEIGHT: 426.10
SOLVENT(S): Methanol

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 10/29/2021
EXPIRY DATE: (mm/dd/yyyy) 10/29/2026
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: >94% (¹⁸O₂)

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (Full Scan and Mass Spectrum)

Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The response factor for MPFHxS (C₆F₁₃S¹⁸O₂¹⁶O) has been observed to be up to 10% lower than for PFHxS (C₆F₁₃S¹⁸O₃) when both compounds are injected together. This difference may vary between instruments.
- Contains ~0.6% of sodium perfluoro-1-octane(¹⁸O₂)sulfonate (¹⁸O₂-PFOS) and ~0.3% of sodium perfluoro-1-heptane(¹⁸O₂)sulfonate (¹⁸O₂-PFHpS).
- Due to the isotopic purity of the starting material (¹⁸O₂ >94%), MPFHxS contains ~0.3% of PFHxS. This value agrees with the theoretical percent relative abundance that is expected based on the stated isotopic purity.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
B.G. Chittim, General Manager

Date: 11/05/2021
(mm/dd/yyyy)

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

INTENDED USE:

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

HANDLING:

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

SYNTHESIS / CHARACTERIZATION:

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

HOMOGENEITY:

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

UNCERTAINTY:

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

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

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

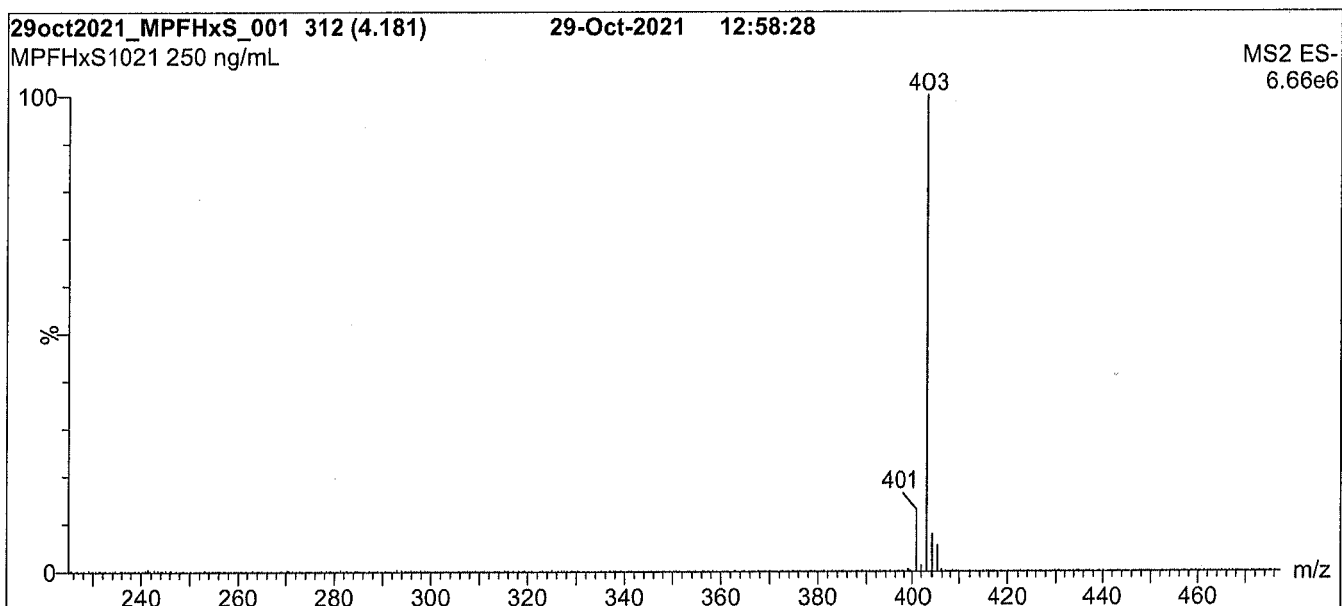
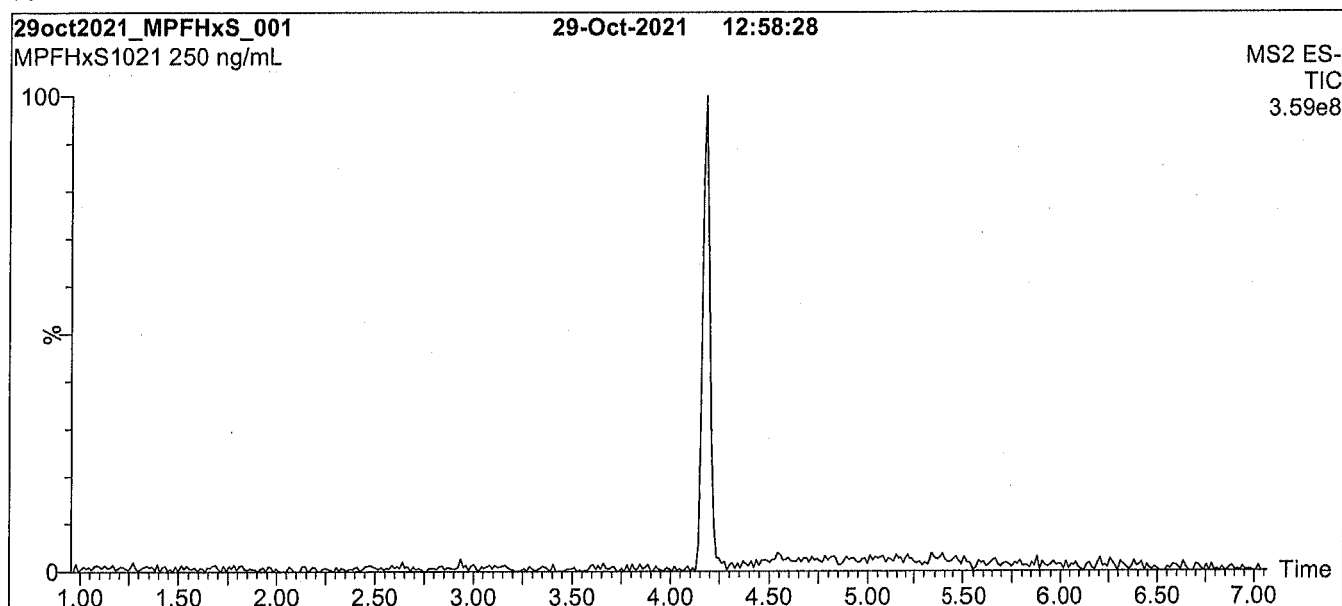
At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).



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

Figure 1: MPFHxS; LC/MS Data (Full Scan and Mass Spectrum)**Conditions for Figure 1:**

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

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

Mobile phase: Gradient

Start: 50% H₂O / 50% (80:20 MeOH:ACN)
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 9 min and hold for
1 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ L/min

MS Parameters:

Experiment: Full Scan (225 - 850 amu)

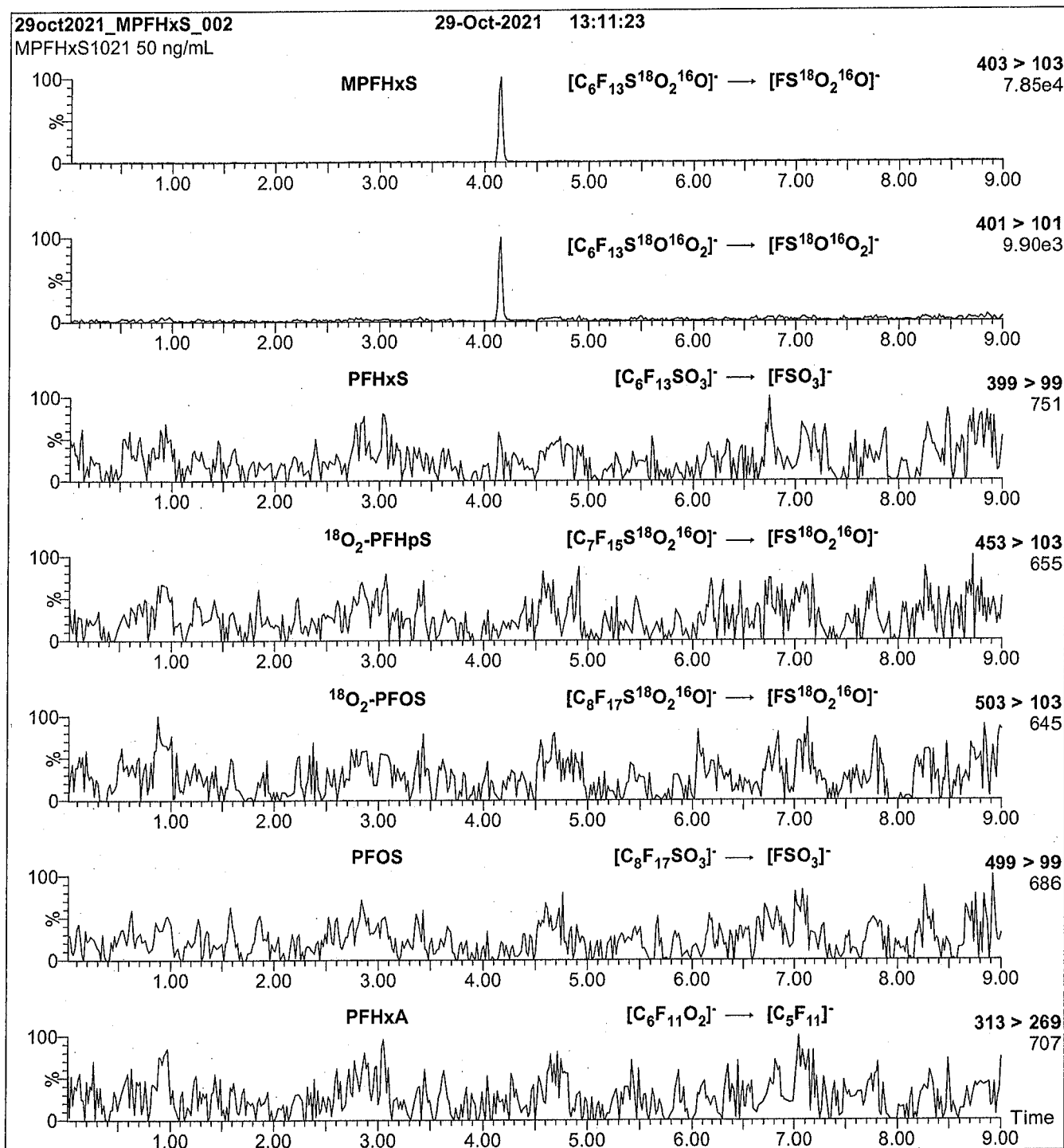
Source: Electrospray (negative)

Capillary Voltage (kV) = 2.00

Cone Voltage (V) = 10.00

Desolvation Temperature (°C) = 500

Desolvation Gas Flow (L/hr) = 1000

Figure 2: MPFHxS; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 2:**

Injection: On-column (MPFHxS)

Mobile phase: Same as Figure 1

Flow: 300 μ L/min**MS Parameters:**

Collision Gas (mbar) = 3.16e-3

Collision Energy (eV) = 32

Analytical Standard Record

22A0122

Description: PFAS - IIS MPFHxS 50ug/mL
Standard Type: Analyte Spike
Solvent: MeOH
Final Volume (mLs): 1.2
Vials: 1

Expires: 10/29/2026
Prepared: 10/29/2021
Prepared By: Dipti Gokal
Department: PFAS
Last Edit: 01/20/2022 15:49 by HGH

Analyte	Parent	CAS Number	Concentration	Units
18O2-PFHXS		18O2-PFHXS	50	ug/mL

Analytical Standard Record

22A0122

Description: PFAS - IIS MPFHxS 50ug/mL
Standard Type: Analyte Spike
Solvent: MeOH
Final Volume (mLs): 1.2
Vials: 1

Expires: 10/29/2026
Prepared: 10/29/2021
Prepared By: Dipti Gokal
Department: PFAS
Last Edit: 01/20/2022 15:49 by HGH

Analyte	Parent	CAS Number	Concentration	Units
18O2-PFHXS		18O2-PFHXS	50	ug/mL

Analytical Standard Record

22A0234

Description:	PFAS IIS 7C 5ug/mL	Expires:	01/20/2023
Standard Type:	Internal Standard	Prepared:	01/20/2022
Solvent:	MeOH/61252	Prepared By:	Dipti Gokal
Final Volume (mLs):	12	Department:	PFAS
Vials:	1	Last Edit:	01/20/2022 15:49 by HGH
Comments:	mpfna had more left over than others.		

Analyte	Parent	CAS Number	Concentration	Units
13C3-PFBA	22A0116	13C3-PFBA	5	ug/mL
13C2-PFHxA	22A0117	13C2-PFHxA	5	ug/mL
13C5-PFNA	22A0118	13C5-PFNA	5	ug/mL
13C4-PFOA	22A0119	13C4-PFOA	5	ug/mL
13C2-PFDA	22A0120	13C2-PFDA	5	ug/mL
13C4-PFOS	22A0121	13C4-PFOS	5	ug/mL
18O2-PFHXS	22A0122	18O2-PFHXS	5	ug/mL

Parent Standards used:

Standard	Description	Prepared	Prepared By	Lot Nbr	Expires	Last Edit	(mLs)
22A0116	PFAS - IIS M3PFBA 50ug/mL	08/19/2021	Wellington Laboratories	M3PFBA0721	08/19/2026	01/20/2022 15:48 by HGH	1.2
22A0117	PFAS - IIS MPFHxA 50ug/mL	10/04/2021	Wellington Laboratories	MPFHxA0921	10/04/2026	01/20/2022 15:48 by HGH	1.2
22A0118	PFAS - IIS MPFNA 50ug/mL	10/29/2021	Wellington Laboratories	MPFNA1021	10/29/2026	01/20/2022 15:48 by HGH	1.2
22A0119	PFAS - IIS MPFOA 50ug/mL	12/07/2021	Wellington Laboratories	MPFOA1121	12/07/2026	01/20/2022 15:48 by HGH	1.2
22A0120	PFAS - IIS MPFDA 50ug/mL	12/08/2021	Wellington Laboratories	MPFDA1221	12/08/2026	01/20/2022 15:49 by HGH	1.2
22A0121	PFAS - IIS MPFOS 50ug/mL	08/18/2021	Wellington Laboratories	MPFOS0821	08/18/2026	01/20/2022 15:49 by HGH	1.2
22A0122	PFAS - IIS MPFHxS 50ug/mL	10/29/2021	Wellington Laboratories	MPFHxS1021	10/29/2026	01/20/2022 15:49 by HGH	1.2

Analytical Standard Record

22A0234

Description:	PFAS IIS 7C 5ug/mL	Expires:	01/20/2023
Standard Type:	Internal Standard	Prepared:	01/20/2022
Solvent:	MeOH/61252	Prepared By:	Dipti Gokal
Final Volume (mLs):	12	Department:	PFAS
Vials:	1	Last Edit:	01/20/2022 15:49 by HGH
Comments:	mpfna had more left over than others.		

Analyte	Parent	CAS Number	Concentration	Units
13C3-PFBA	22A0116	13C3-PFBA	5	ug/mL
13C2-PFHxA	22A0117	13C2-PFHxA	5	ug/mL
13C5-PFNA	22A0118	13C5-PFNA	5	ug/mL
13C4-PFOA	22A0119	13C4-PFOA	5	ug/mL
13C2-PFDA	22A0120	13C2-PFDA	5	ug/mL
13C4-PFOS	22A0121	13C4-PFOS	5	ug/mL
18O2-PFHXS	22A0122	18O2-PFHXS	5	ug/mL

Parent Standards used:

Standard	Description	Prepared	Prepared By	Lot Nbr	Expires	Last Edit	(mLs)
22A0116	PFAS - IIS M3PFBA 50ug/mL	08/19/2021	Wellington Laboratories	M3PFBA0721	08/19/2026	01/20/2022 15:48 by HGH	1.2
22A0117	PFAS - IIS MPFHxA 50ug/mL	10/04/2021	Wellington Laboratories	MPFHxA0921	10/04/2026	01/20/2022 15:48 by HGH	1.2
22A0118	PFAS - IIS MPFNA 50ug/mL	10/29/2021	Wellington Laboratories	MPFNA1021	10/29/2026	01/20/2022 15:48 by HGH	1.2
22A0119	PFAS - IIS MPFOA 50ug/mL	12/07/2021	Wellington Laboratories	MPFOA1121	12/07/2026	01/20/2022 15:48 by HGH	1.2
22A0120	PFAS - IIS MPFDA 50ug/mL	12/08/2021	Wellington Laboratories	MPFDA1221	12/08/2026	01/20/2022 15:49 by HGH	1.2
22A0121	PFAS - IIS MPFOS 50ug/mL	08/18/2021	Wellington Laboratories	MPFOS0821	08/18/2026	01/20/2022 15:49 by HGH	1.2
22A0122	PFAS - IIS MPFHxS 50ug/mL	10/29/2021	Wellington Laboratories	MPFHxS1021	10/29/2026	01/20/2022 15:49 by HGH	1.2

Analytical Standard Record

22A0234

Description:	PFAS IIS 7C 5ug/mL	Expires:	01/20/2023
Standard Type:	Internal Standard	Prepared:	01/20/2022
Solvent:	MeOH/61252	Prepared By:	Dipti Gokal
Final Volume (mLs):	12	Department:	PFAS
Vials:	1	Last Edit:	01/20/2022 15:49 by HGH
Comments:	mpfna had more left over than others.		

Analyte	Parent	CAS Number	Concentration	Units
13C3-PFBA	22A0116	13C3-PFBA	5	ug/mL
13C2-PFHxA	22A0117	13C2-PFHxA	5	ug/mL
13C5-PFNA	22A0118	13C5-PFNA	5	ug/mL
13C4-PFOA	22A0119	13C4-PFOA	5	ug/mL
13C2-PFDA	22A0120	13C2-PFDA	5	ug/mL
13C4-PFOS	22A0121	13C4-PFOS	5	ug/mL
18O2-PFHXS	22A0122	18O2-PFHXS	5	ug/mL

Parent Standards used:

Standard	Description	Prepared	Prepared By	Lot Nbr	Expires	Last Edit	(mLs)
22A0116	PFAS - IIS M3PFBA 50ug/mL	08/19/2021	Wellington Laboratories	M3PFBA0721	08/19/2026	01/20/2022 15:48 by HGH	1.2
22A0117	PFAS - IIS MPFHxA 50ug/mL	10/04/2021	Wellington Laboratories	MPFHxA0921	10/04/2026	01/20/2022 15:48 by HGH	1.2
22A0118	PFAS - IIS MPFNA 50ug/mL	10/29/2021	Wellington Laboratories	MPFNA1021	10/29/2026	01/20/2022 15:48 by HGH	1.2
22A0119	PFAS - IIS MPFOA 50ug/mL	12/07/2021	Wellington Laboratories	MPFOA1121	12/07/2026	01/20/2022 15:48 by HGH	1.2
22A0120	PFAS - IIS MPFDA 50ug/mL	12/08/2021	Wellington Laboratories	MPFDA1221	12/08/2026	01/20/2022 15:49 by HGH	1.2
22A0121	PFAS - IIS MPFOS 50ug/mL	08/18/2021	Wellington Laboratories	MPFOS0821	08/18/2026	01/20/2022 15:49 by HGH	1.2
22A0122	PFAS - IIS MPFHxS 50ug/mL	10/29/2021	Wellington Laboratories	MPFHxS1021	10/29/2026	01/20/2022 15:49 by HGH	1.2



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:

N-MeFOSE-M

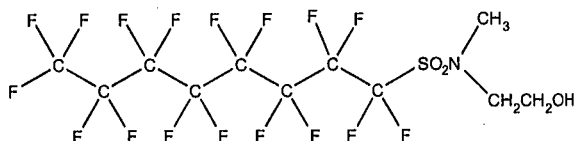
LOT NUMBER: NMeFOSE0921M**COMPOUND:**

2-(N-methylperfluoro-1-octanesulfonamido)-ethanol

22C0307

STRUCTURE:**CAS #:**

24448-09-7

**MOLECULAR FORMULA:** $C_{11}H_8F_{17}NO_3S$ **MOLECULAR WEIGHT:** 557.22**CONCENTRATION:** $50.0 \pm 2.5 \mu\text{g/mL}$ **SOLVENT(S):**

Methanol

CHEMICAL PURITY:

>98%

LAST TESTED: (mm/dd/yyyy)

09/22/2021 (HRGC/LRMS)

09/23/2021 (LC/MS)

EXPIRY DATE: (mm/dd/yyyy)

09/23/2026

RECOMMENDED STORAGE:

Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (Full Scan and Mass Spectrum)

Figure 2: LC/MS Data (Full Scan and Mass Spectrum)

Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By:

B.G. Chittim, General Manager

Date:

09/28/2021
(mm/dd/yyyy)

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

INTENDED USE:

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

HANDLING:

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

SYNTHESIS / CHARACTERIZATION:

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

HOMOGENEITY:

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

UNCERTAINTY:

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

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

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

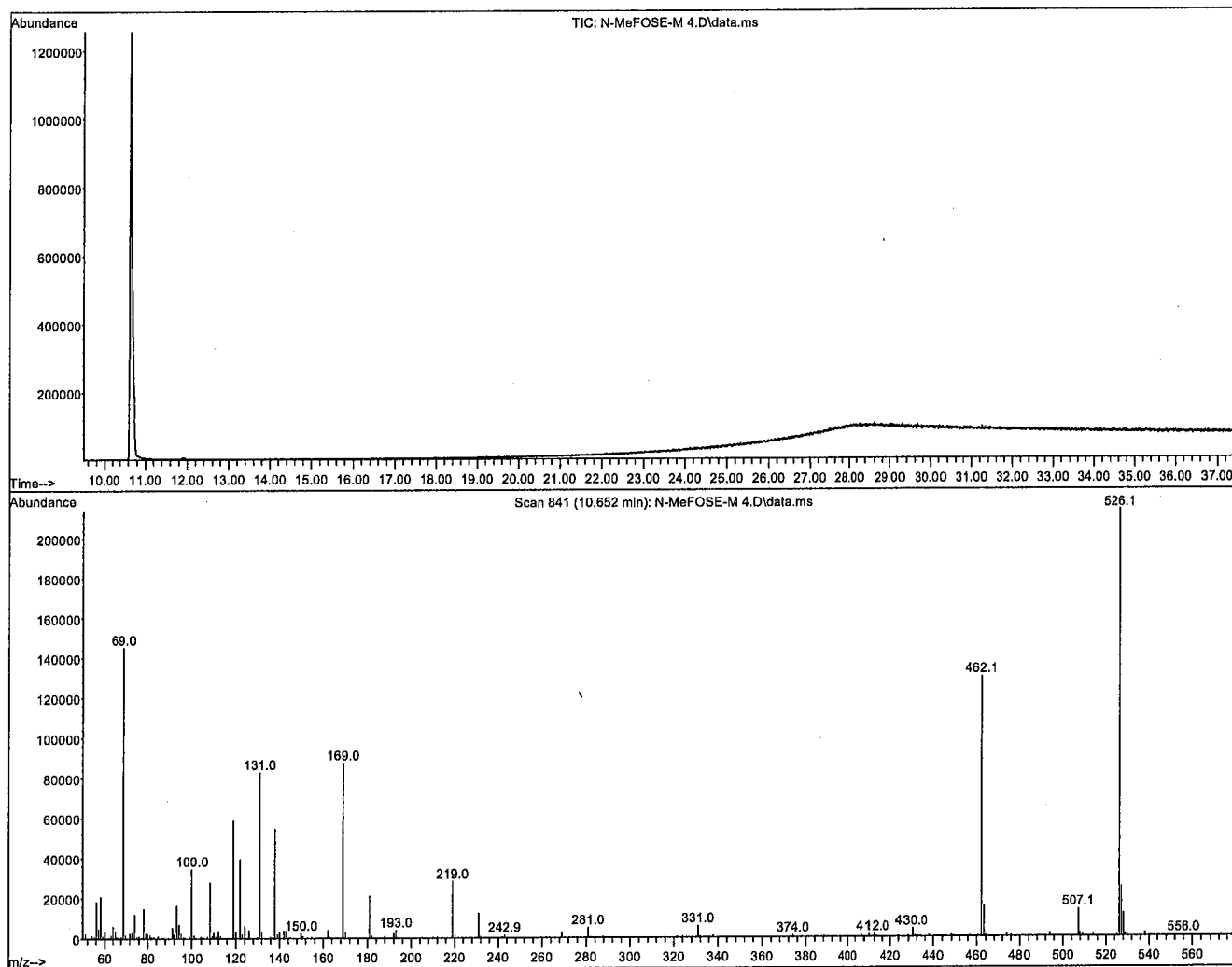
At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).



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

Figure 1: N-MeFOSE-M; HRGC/LRMS Data (Full Scan and Mass Spectrum)**Conditions for Figure 1:**

Agilent 7890A HRGC
Agilent 5975C MSD

Chromatographic Conditions:

Column: 30 m DB-5 (0.25 mm id, 0.25 μ m film thickness) Agilent J&W

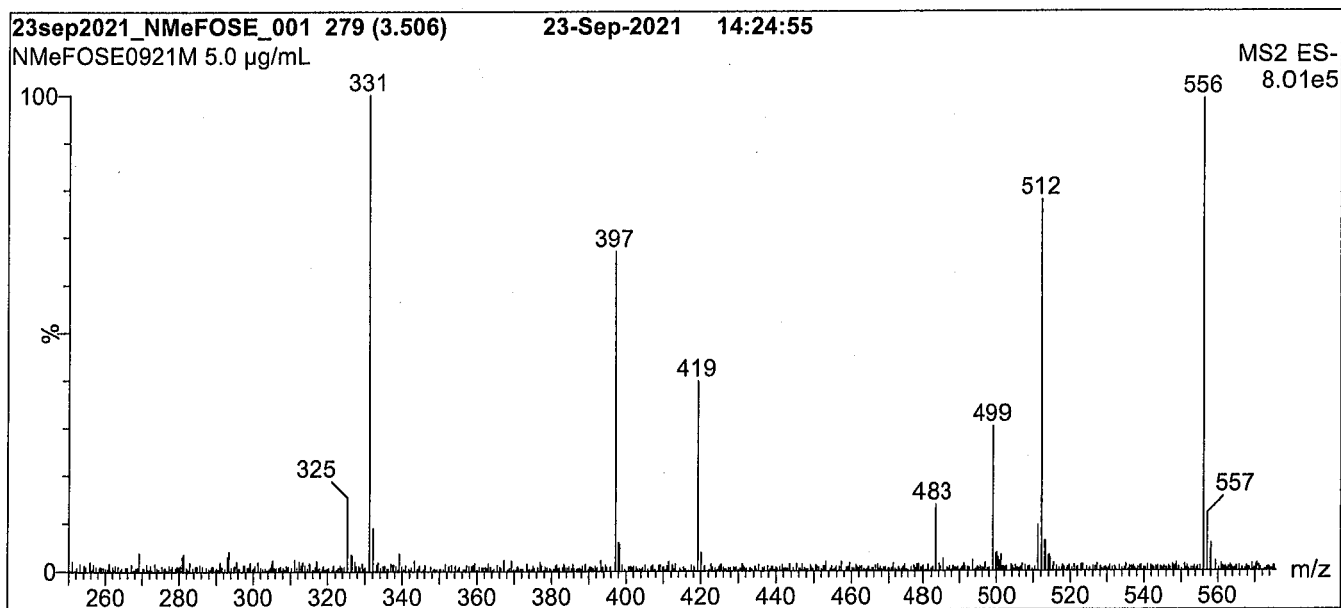
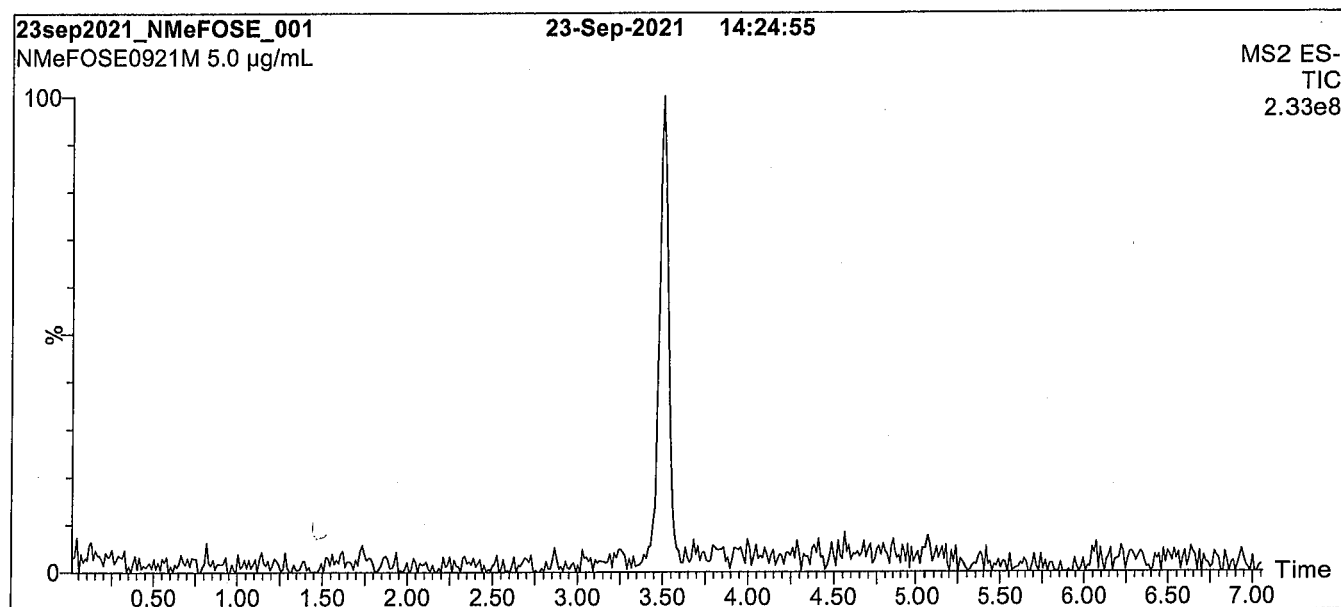
Flow: Constant at 1 mL/min

Injector: 250°C (Splitless Injection)

Oven: 100°C (5 min)
10°C/min to 310°C
310°C (10 min)

Ionization: EI+

Detector: 230°C
Full Scan (50-1000 amu)

Figure 2: N-MeFOSE-M; LC/MS Data (Full Scan and Mass Spectrum)**Conditions for Figure 2:**

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

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

Mobile phase: Gradient

Start: 30% H₂O / 70% MeOH

Ramp to 90% organic over 8 min and hold for
1.5 min before returning to initial conditions in 1 min.

Time: 12 min

Flow: 300 µL/min

MS Parameters:

Experiment: Full Scan (250 - 850 amu)

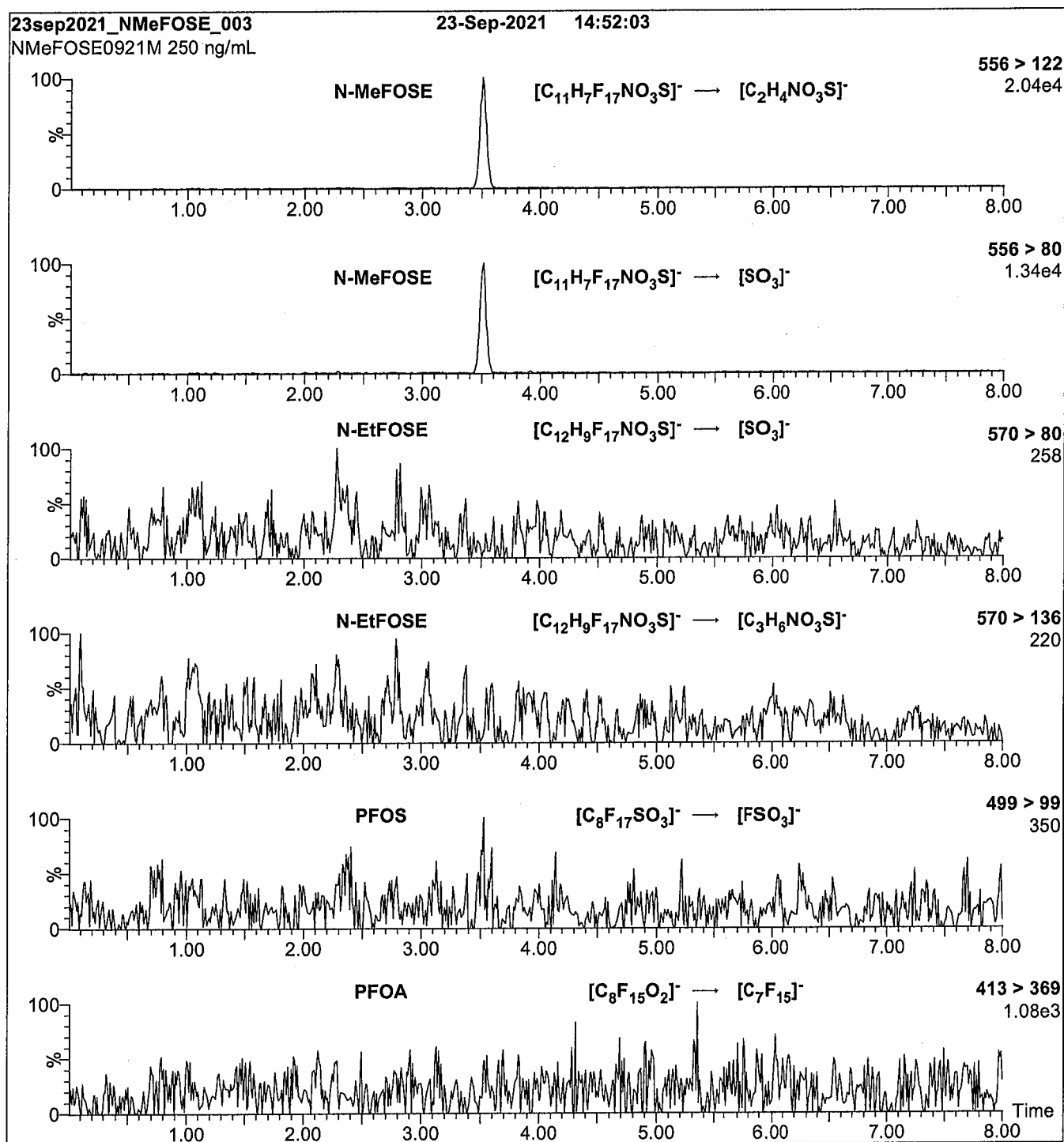
Source: Electrospray (negative)

Capillary Voltage (kV) = 2.00

Cone Voltage (V) = 65.00

Desolvation Temperature (°C) = 450

Desolvation Gas Flow (L/hr) = 1000

Figure 3: N-MeFOSE-M; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 3:**

Injection: On-column (N-MeFOSE-M)

Mobile phase: Same as Figure 2

Flow: 300 μ L/min**MS Parameters:**

Collision Gas (mbar) = 3.14e-3

Collision Energy (eV) = 36

g'

x

Analytical Standard Record

22C0307

Description:	PFAS - SAS N-MeFOSE 50ug/mL	Expires:	09/23/2026
Standard Type:	Analyte Spike	Prepared:	03/15/2022
Solvent:	Methanol	Prepared By:	Wellington Laboratories (Lot#: NMeFOSE0921M)
Final Volume (mLs):	1	Department:	PFAS
Vials:	1	Last Edit:	03/15/2022 15:59 by DAG

Analyte	Parent	CAS Number	Concentration	Units
NMeFOSE		24448-09-7	50	ug/mL



WELLINGTON LABORATORIES

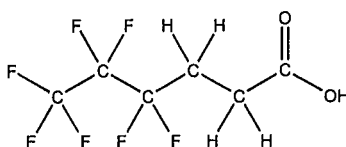
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: FPrPA
COMPOUND: 3-Perfluoropropyl propanoic acid

LOT NUMBER: FPrPA0122
22C0308

STRUCTURE:

CAS #: 356-02-5



MOLECULAR FORMULA: $C_8H_5F_7O_2$
CONCENTRATION: $50.0 \pm 2.5 \mu\text{g/mL}$
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 02/03/2022
EXPIRY DATE: (mm/dd/yyyy) 02/03/2027
RECOMMENDED STORAGE: Refrigerate ampoule

MOLECULAR WEIGHT: 242.09
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (Full Scan and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains <1% of the unsaturated 3:3 telomer acid ($C_8H_3F_7O_2$) as an impurity determined by ^{19}F NMR.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
B.G. Chittim, General Manager

Date: 02/04/2022
(mm/dd/yyyy)

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

INTENDED USE:

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HANDLING:

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UNCERTAINTY:

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

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

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

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

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

TRACEABILITY:

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EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

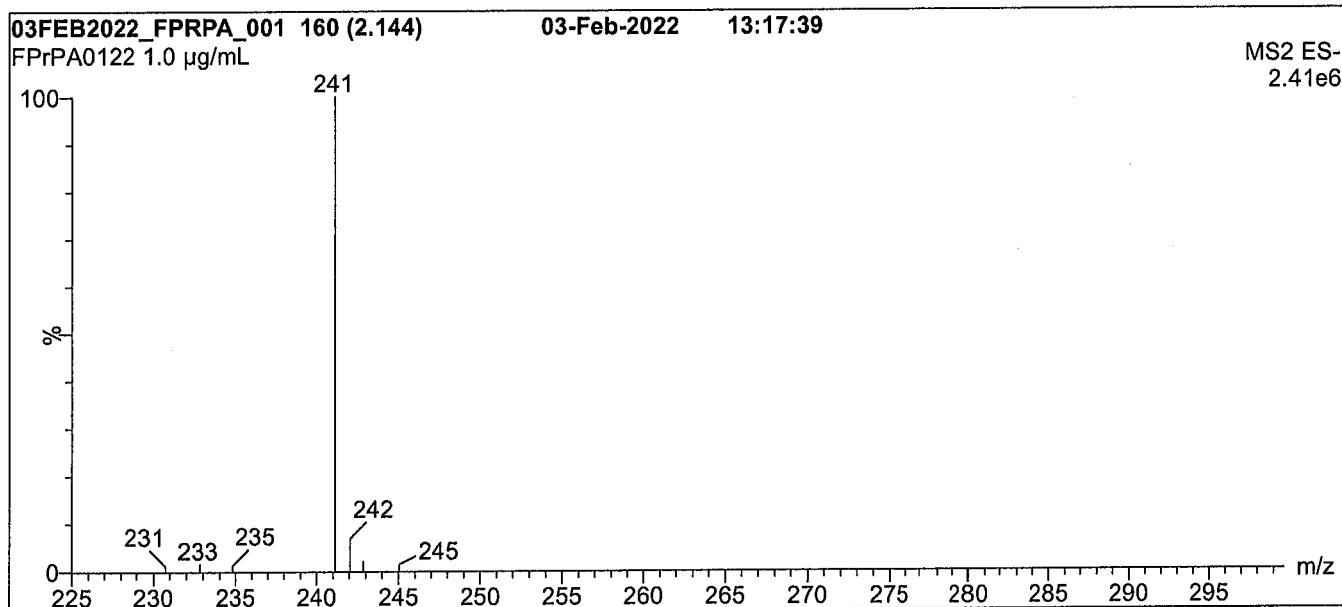
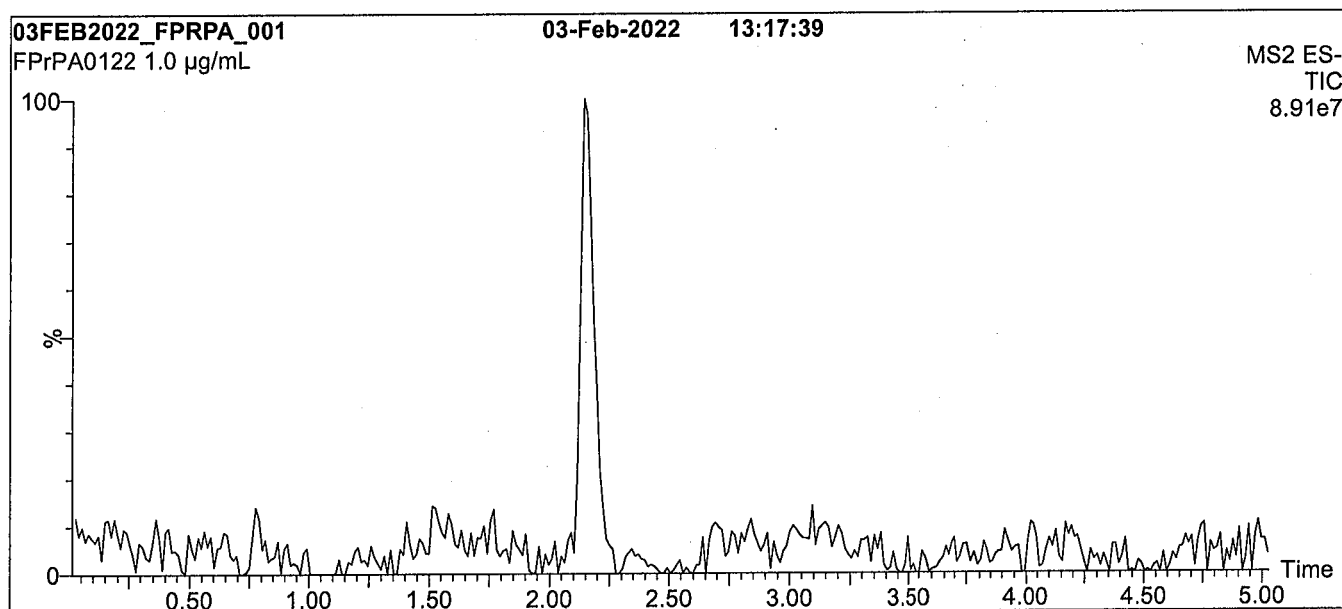
At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).



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Figure 1: FPrPA; LC/MS Data (Full Scan and Mass Spectrum)**Conditions for Figure 1:**

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

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

Mobile phase: Gradient

Start: 60% H₂O / 40% (80:20 MeOH:ACN)
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for 2 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µL/min

MS Parameters:

Experiment: Full Scan (225 - 850 amu)

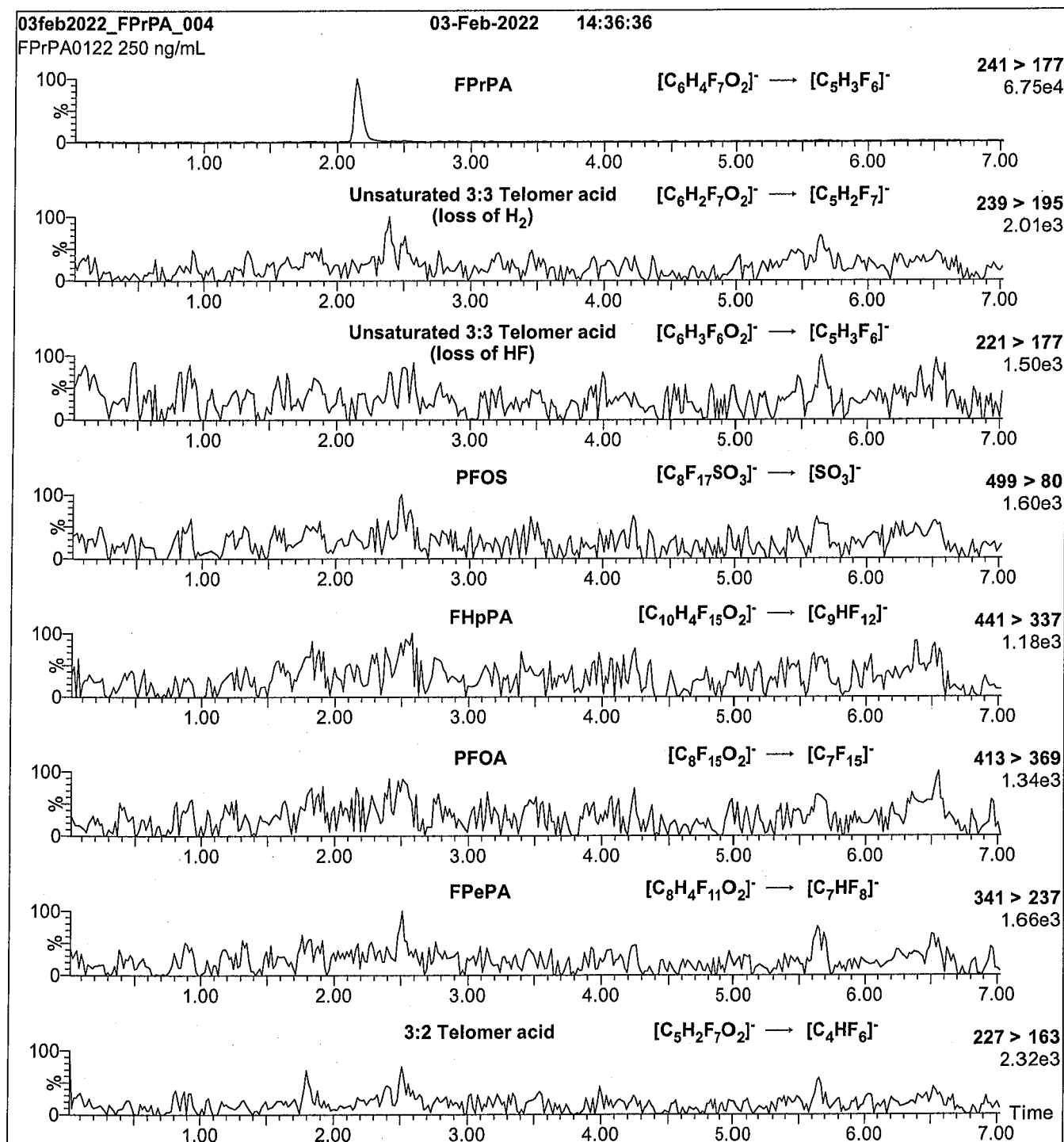
Source: Electrospray (negative)

Capillary Voltage (kV) = 2.00

Cone Voltage (V) = 10.00

Desolvation Temperature (°C) = 500

Desolvation Gas Flow (L/hr) = 1000

Figure 2: FPrPA; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 2:**

Injection: On-column (FPrPA)

Mobile phase: Same as Figure 1

Flow: 300 μ L/min**MS Parameters:**

Collision Gas (mbar) = 3.33e-3

Collision Energy (eV) = 10

Analytical Standard Record

22C0308

Description:	PFAS - SAS FPrPA 50ug/mL	Expires:	02/03/2027
Standard Type:	Analyte Spike	Prepared:	03/15/2022
Solvent:	Methanol	Prepared By:	Wellington Laboratories (Lot#: FPrPA0122)
Final Volume (mLs):	1	Department:	PFAS
Vials:	1	Last Edit:	03/15/2022 15:59 by DAG

Analyte	Parent	CAS Number	Concentration	Units
3:3FTCA		113507-82-7	50	ug/mL



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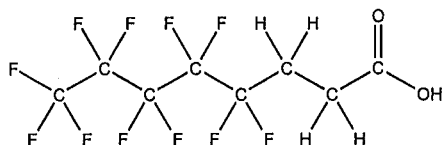
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: FPePA
COMPOUND: 3-Perfluoropentyl propanoic acid

LOT NUMBER: FPePA1221
22C0309

STRUCTURE:

CAS #: 914637-49-3



MOLECULAR FORMULA: $C_8H_5F_{11}O_2$
CONCENTRATION: $50.0 \pm 2.5 \mu\text{g/mL}$
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 01/05/2022
EXPIRY DATE: (mm/dd/yyyy) 01/05/2027
RECOMMENDED STORAGE: Refrigerate ampoule

MOLECULAR WEIGHT: 342.11
SOLVENT(S): Methanol


DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (Full Scan and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains <0.5% of the unsaturated 5:3 telomer acid ($C_8H_3F_{11}O_2$) as an impurity determined by ^1H NMR.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
B.G. Chittim, General Manager

Date: 01/06/2022
(mm/dd/yyyy)

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

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LIMITED WARRANTY:

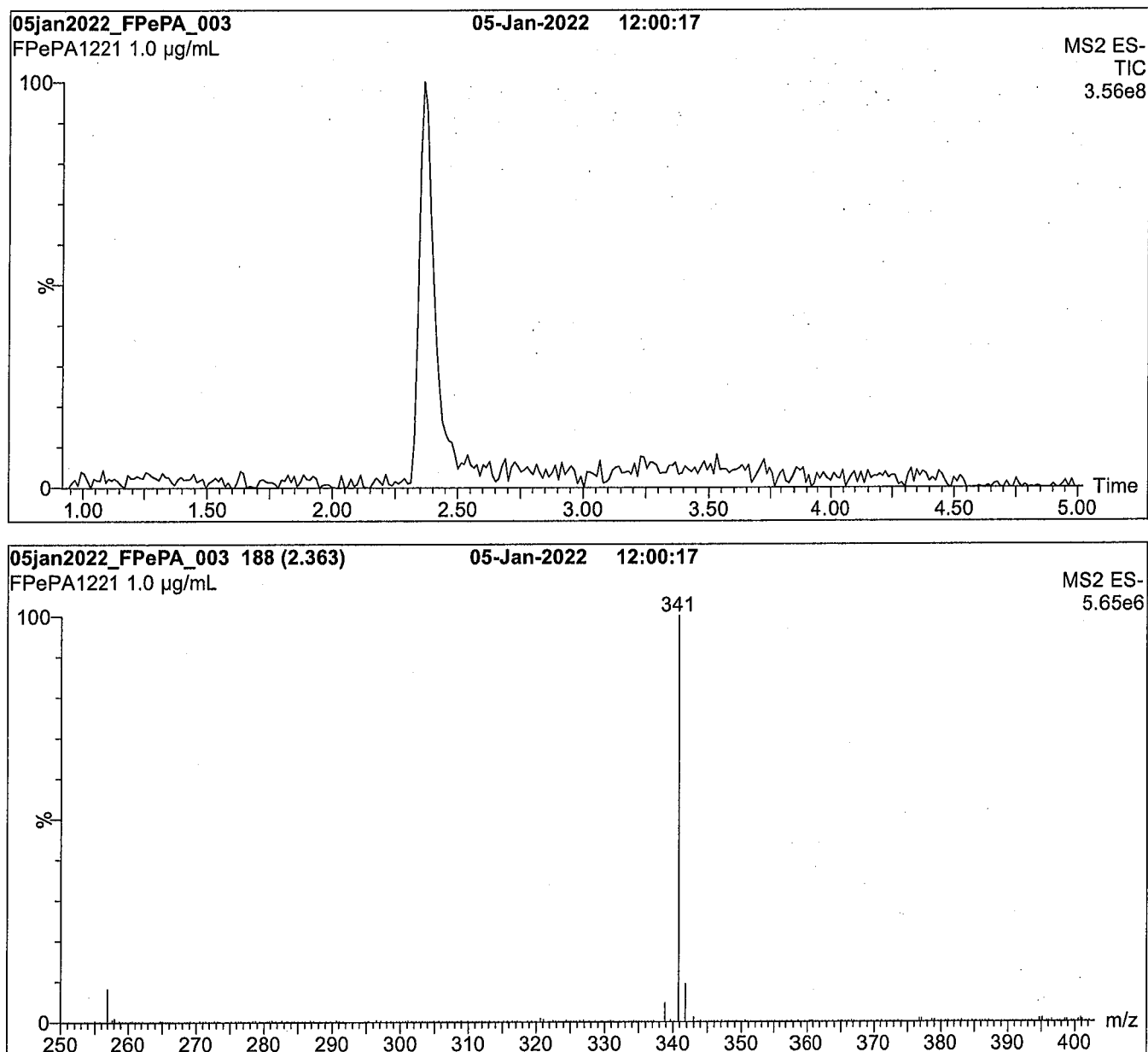
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QUALITY MANAGEMENT:

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Figure 1: FPePA; LC/MS Data (Full Scan and Mass Spectrum)**Conditions for Figure 1:**

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

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

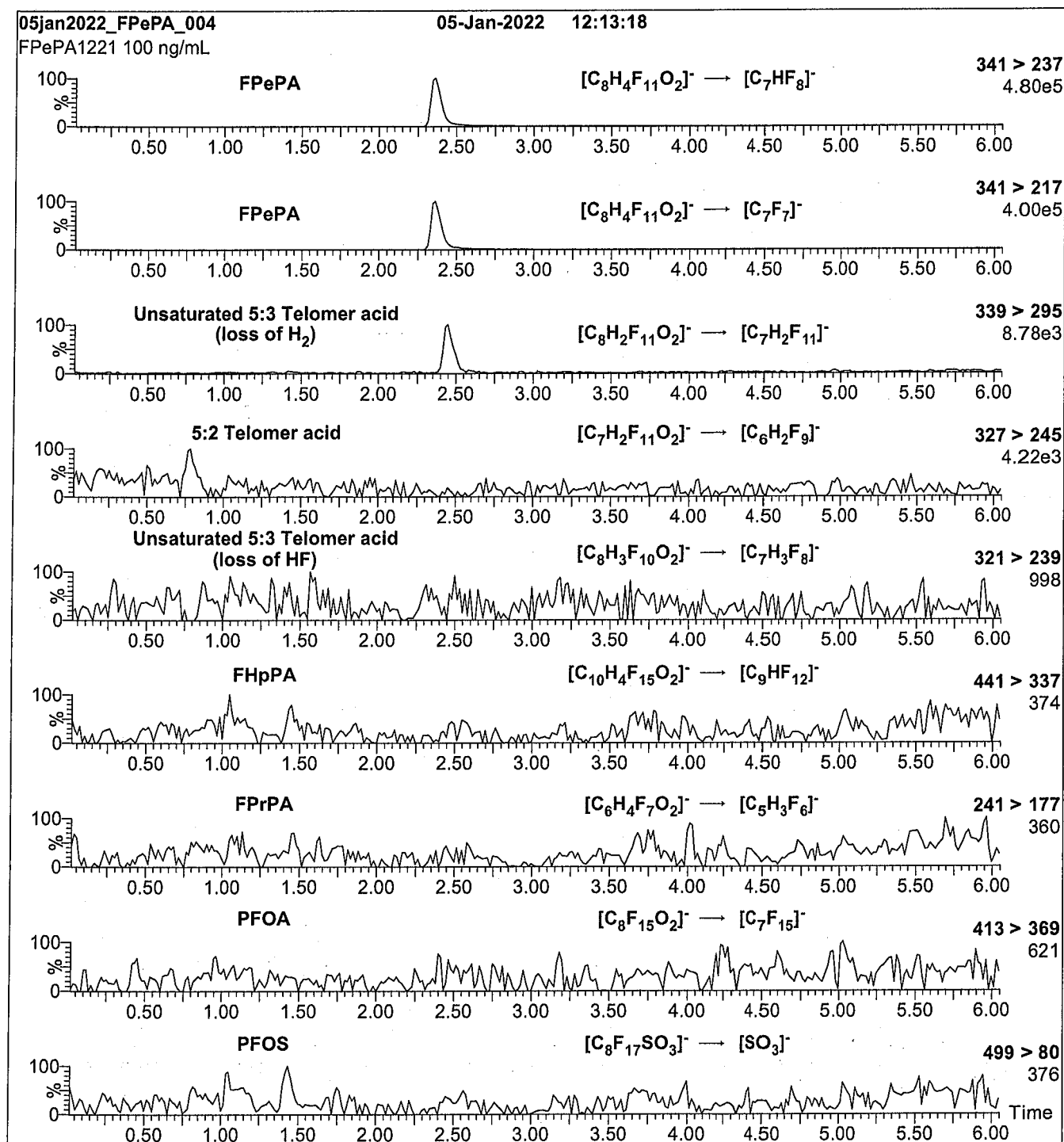
Mobile phase: Gradient
Start: 45% H₂O / 55% (80:20 MeOH:ACN)
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µL/min

MS Parameters:

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 18.50
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (L/hr) = 1000

Figure 2: FPePA; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 2:**

Injection: On-column (FPePA)

Mobile phase: Same as Figure 1

Flow: 300 μ L/min**MS Parameters:**

Collision Gas (mbar) = 3.09e-3

Collision Energy (eV) = 10

Analytical Standard Record

22C0309

Description:	PFAS - SAS FPePA 50ug/mL	Expires:	01/05/2027
Standard Type:	Analyte Spike	Prepared:	03/15/2022
Solvent:	Methanol	Prepared By:	Wellington Laboratories (Lot#:
Final Volume (mLs):	1	Department:	PFAS (1221)
Vials:	1	Last Edit:	03/15/2022 15:59 by DAG

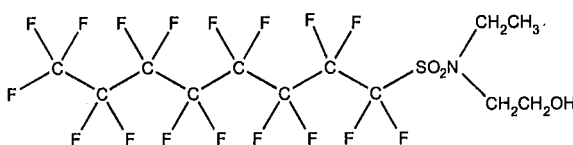
Analyte	Parent	CAS Number	Concentration	Units
5:3FTCA		914637-49-3	50	ug/mL



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-EtFOSE-M **LOT NUMBER:** NEtFOSE0921M
COMPOUND: 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol **22C0310**
STRUCTURE: **CAS #:** 1691-99-2



MOLECULAR FORMULA: $C_{12}H_{10}F_{17}NO_3S$ **MOLECULAR WEIGHT:** 571.25
CONCENTRATION: $50.0 \pm 2.5 \mu\text{g/mL}$ **SOLVENT(S):** Methanol
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 09/22/2021 (HRGC/LRMS)
 09/23/2021 (LC/MS)
EXPIRY DATE: (mm/dd/yyyy) 09/23/2026
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (Full Scan and Mass Spectrum)
 Figure 2: LC/MS Data (Full Scan and Mass Spectrum)
 Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
 B.G. Chittim, General Manager

Date: 10/20/2021
 (mm/dd/yyyy)

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

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LIMITED WARRANTY:

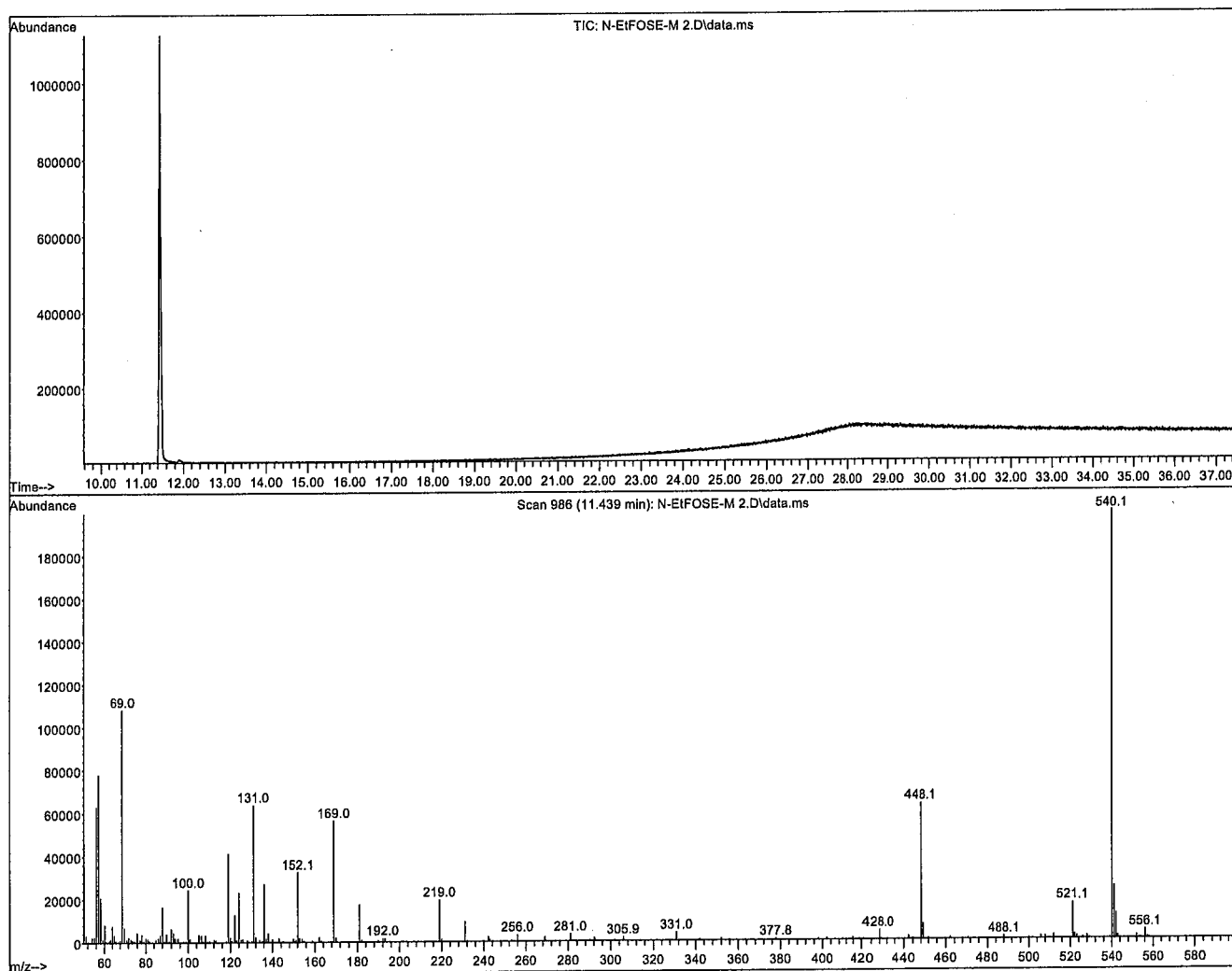
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Figure 1: N-EtFOSE-M; HRGC/LRMS Data (Full Scan and Mass Spectrum)**Conditions for Figure 1:**

Agilent 7890A HRGC
 Agilent 5975C MSD

Chromatographic Conditions:

Column: 30 m DB-5 (0.25 mm id, 0.25 μ m film thickness) Agilent J&W

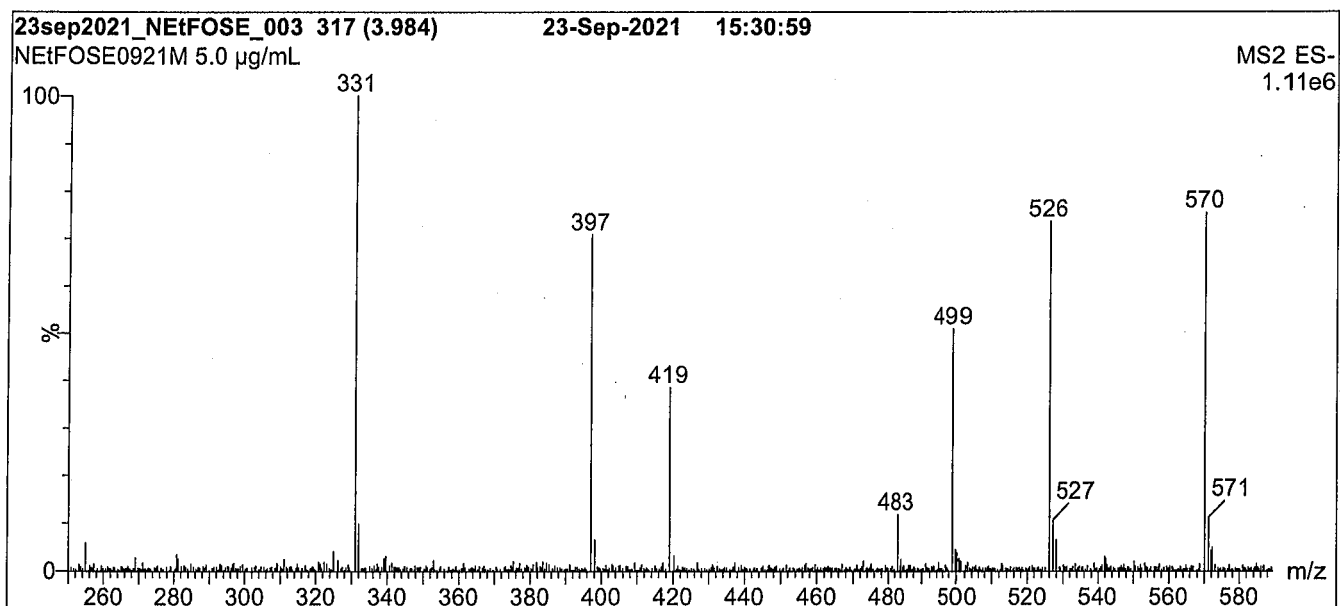
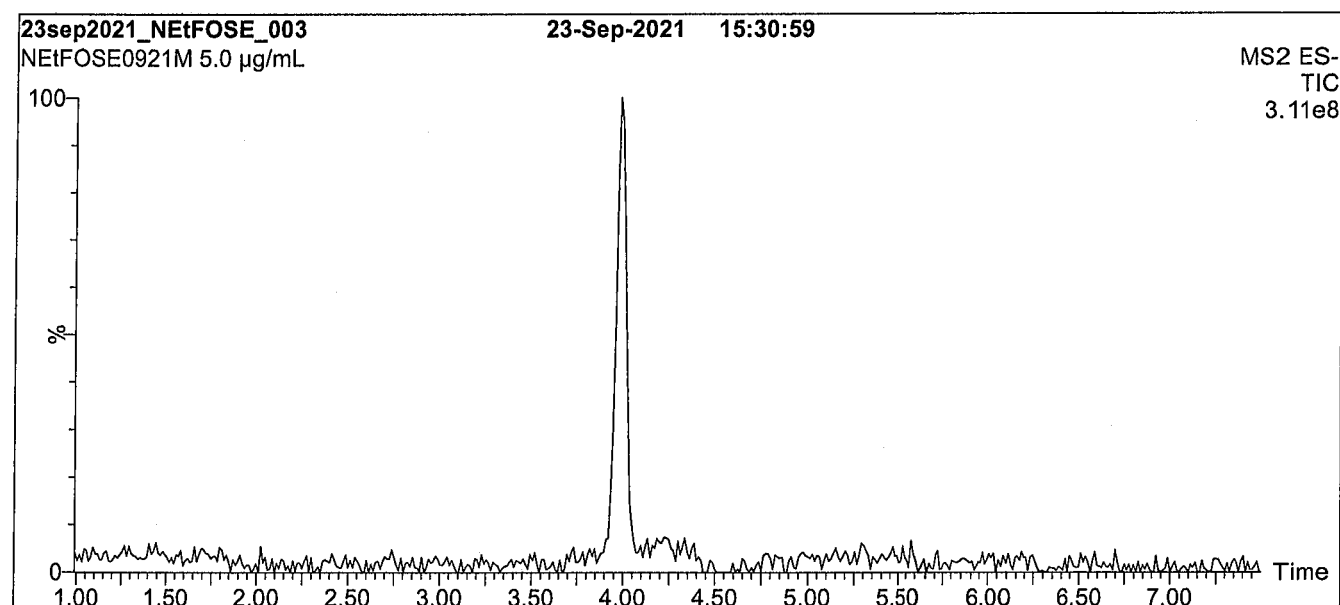
Flow: Constant at 1 mL/min

Injector: 250°C (Splitless Injection)

Oven: 100°C (5 min)
 10°C/min to 325°C
 325°C (10 min)

Ionization: EI+

Detector: 230°C
 Full Scan (50-1000 amu)

Figure 2: N-EtFOSE-M; LC/MS Data (Full Scan and Mass Spectrum)**Conditions for Figure 2:**

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

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

Mobile phase: Gradient

Start: 30% H₂O / 70% MeOH

Ramp to 90% organic over 8 min and hold for
1.5 min before returning to initial conditions in 1 min.

Time: 12 min

Flow: 300 µL/min

MS Parameters:

Experiment: Full Scan (250 - 850 amu)

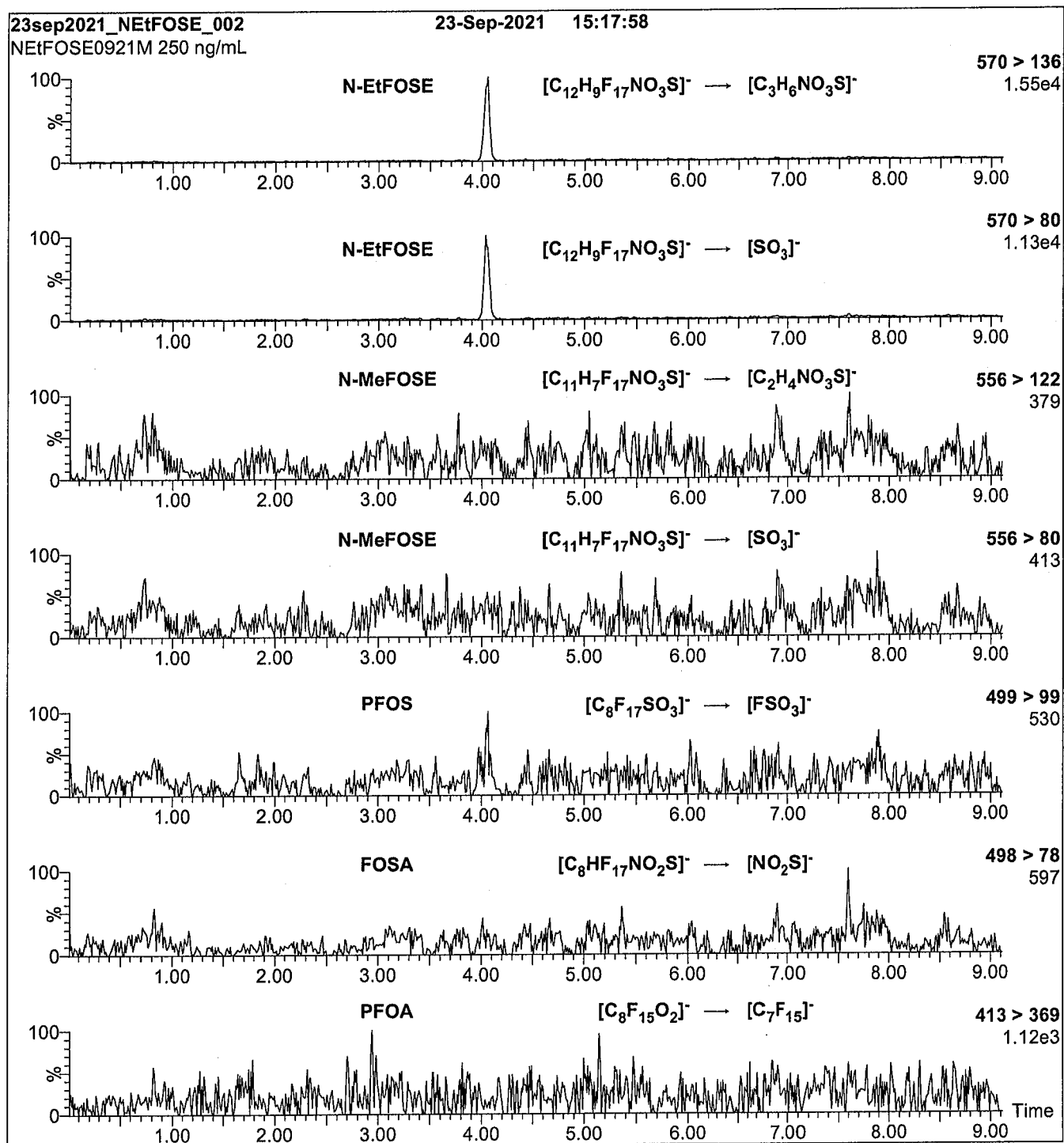
Source: Electrospray (negative)

Capillary Voltage (kV) = 2.00

Cone Voltage (V) = 65.00

Desolvation Temperature (°C) = 450

Desolvation Gas Flow (L/hr) = 1000

Figure 3: N-EtFOSE-M; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 3:**

Injection: On-column (N-EtFOSE-M)

Mobile phase: Same as Figure 2

Flow: 300 μ L/min**MS Parameters:**

Collision Gas (mbar) = 3.14e-3

Collision Energy (eV) = 32

Analytical Standard Record

22C0310

Description:	PFAS - SAS NEtFOSE 50ug/mL	Expires:	09/23/2026
Standard Type:	Analyte Spike	Prepared:	03/15/2022
Solvent:	Methanol	Prepared By:	Wellington Laboratories (Lot#:
Final Volume (mLs):	1	Department:	NEtFOSE0921M)
Vials:	1	Last Edit:	03/15/2022 15:59 by DAG

Analyte	Parent	CAS Number	Concentration	Units
NEtFOSE		1691-99-2	50	ug/mL



WELLINGTON LABORATORIES

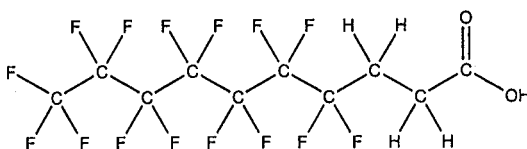
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: FHpPA
COMPOUND: 3-Perfluoroheptyl propanoic acid

LOT NUMBER: FHpPA1020
22C0311

STRUCTURE:

CAS #: 812-70-4



MOLECULAR FORMULA: $C_{10}H_6F_{16}O_2$
CONCENTRATION: $50.0 \pm 2.5 \mu\text{g/mL}$
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 11/12/2020
EXPIRY DATE: (mm/dd/yyyy) 11/12/2025
RECOMMENDED STORAGE: Refrigerate ampoule

MOLECULAR WEIGHT: 442.12
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
B.G. Chittim, General Manager

Date: 11/27/2020
(mm/dd/yyyy)

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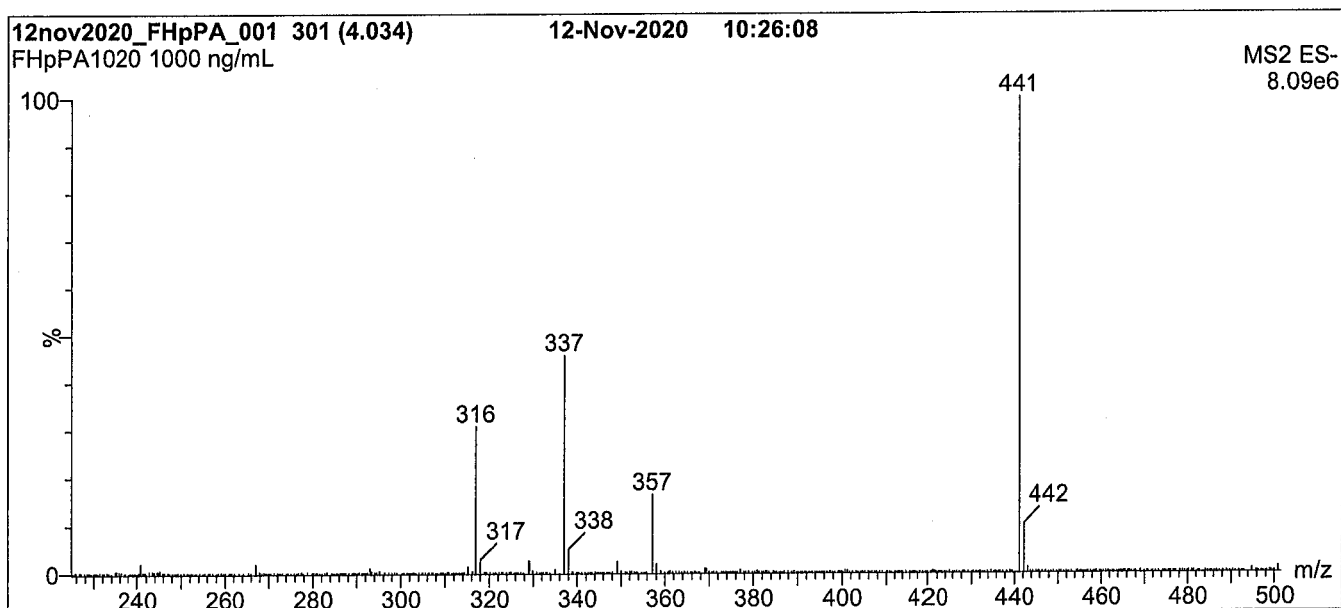
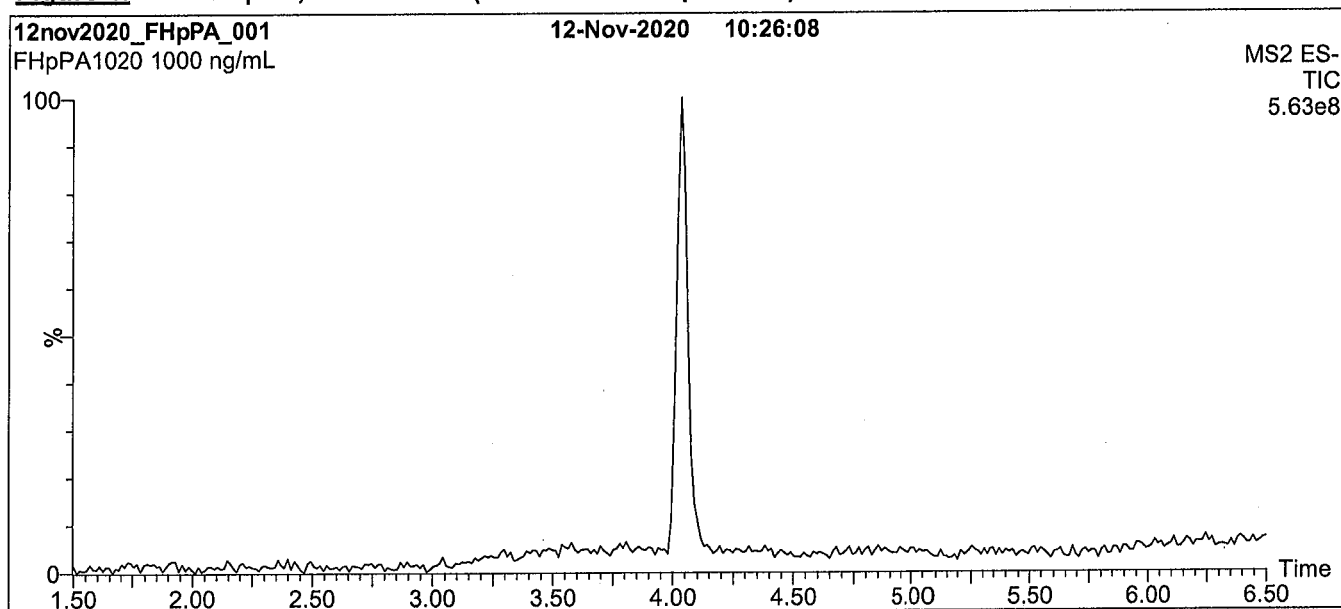
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QUALITY MANAGEMENT:

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

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

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

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

Mobile phase: Gradient

Start: 45% H₂O / 55% (80:20 MeOH:ACN)
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ L/min

MS Parameters:

Experiment: Full Scan (225 - 850 amu)

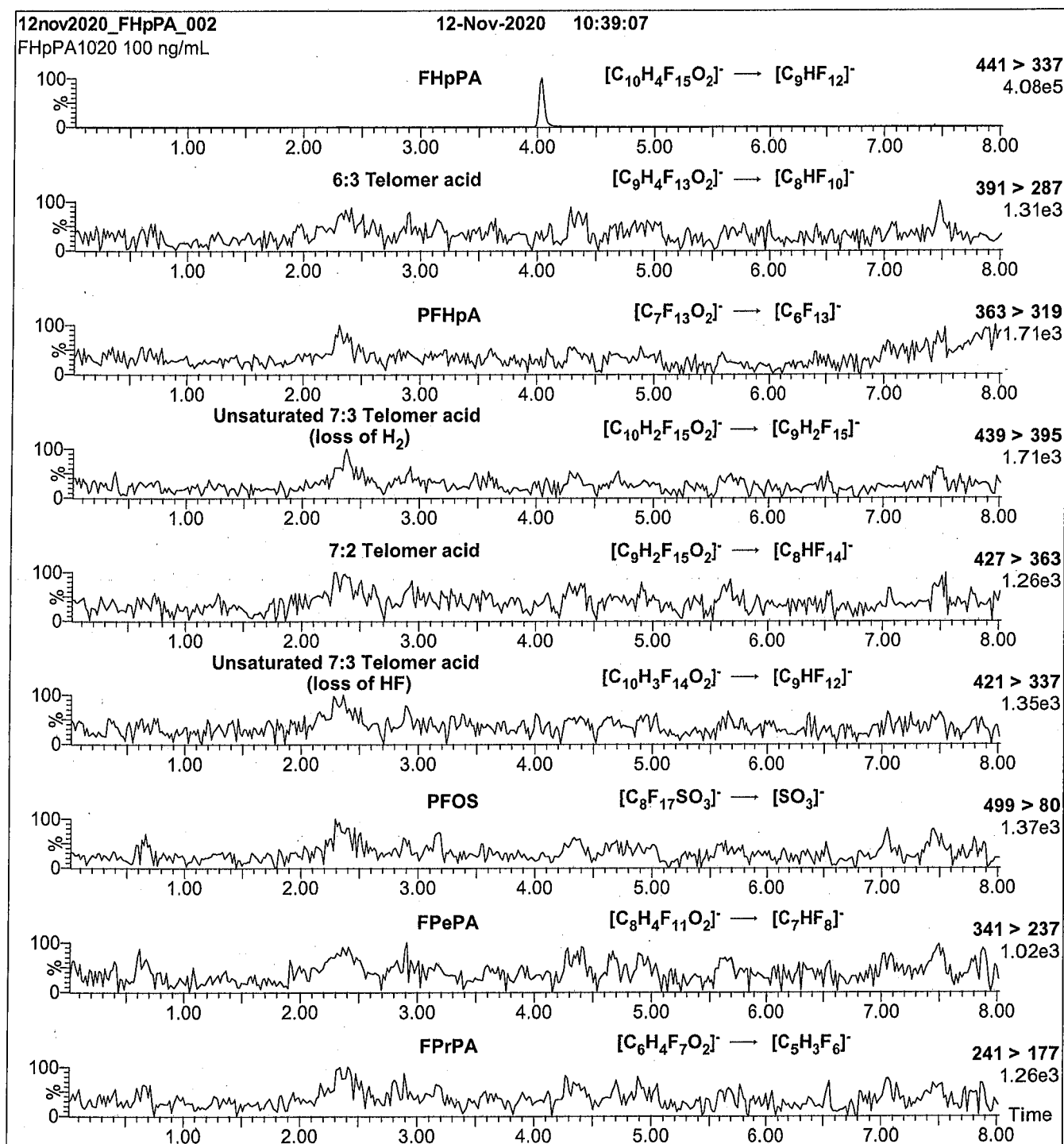
Source: Electrospray (negative)

Capillary Voltage (kV) = 0.50

Cone Voltage (V) = 28.50

Desolvation Temperature (°C) = 500

Desolvation Gas Flow (L/hr) = 1000

Figure 2: FHpPA; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 2:**

Injection: On-column (FHpPA)

Mobile phase: Same as Figure 1

Flow: 300 μ L/min**MS Parameters:**

Collision Gas (mbar) = 3.41e-3

Collision Energy (eV) = 8

Analytical Standard Record

22C0311

Description:	PFAS - SAS FHpPA 50ug/mL	Expires:	11/12/2025
Standard Type:	Analyte Spike	Prepared:	03/15/2022
Solvent:	Methanol	Prepared By:	Wellington Laboratories (Lot#:
Final Volume (mLs):	1	Department:	HHPA1020)
Vials:	1	Last Edit:	03/15/2022 16:00 by DAG

Analyte	Parent	CAS Number	Concentration	Units
7:3FTCA		812-70-4	50	ug/mL

Analytical Standard Record

22C0311

Description:	PFAS - SAS FHpPA 50ug/mL	Expires:	11/12/2025
Standard Type:	Analyte Spike	Prepared:	03/15/2022
Solvent:	Methanol	Prepared By:	Wellington Laboratories (Lot#:
Final Volume (mLs):	1	Department:	HHPA1020)
Vials:	1	Last Edit:	03/15/2022 16:00 by DAG

Analyte	Parent	CAS Number	Concentration	Units
7:3FTCA		812-70-4	50	ug/mL



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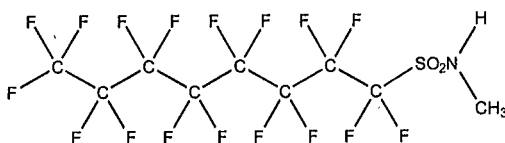
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-MeFOSA-M
COMPOUND: N-methylperfluoro-1-octanesulfonamide

LOT NUMBER: NMeFOSA0721M
22C0312

STRUCTURE:

CAS #: 31506-32-8



MOLECULAR FORMULA: $C_9H_4F_{17}NO_2S$
CONCENTRATION: $50.0 \pm 2.5 \mu\text{g/mL}$
CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 08/03/2021
EXPIRY DATE: (mm/dd/yyyy) 08/03/2026
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 513.17
SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (Full Scan and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: 
B.G. Chittim, General Manager

Date: 08/04/2021
(mm/dd/yyyy)

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

INTENDED USE:

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

HANDLING:

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

SYNTHESIS / CHARACTERIZATION:

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

HOMOGENEITY:

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

UNCERTAINTY:

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

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

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

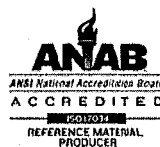
Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

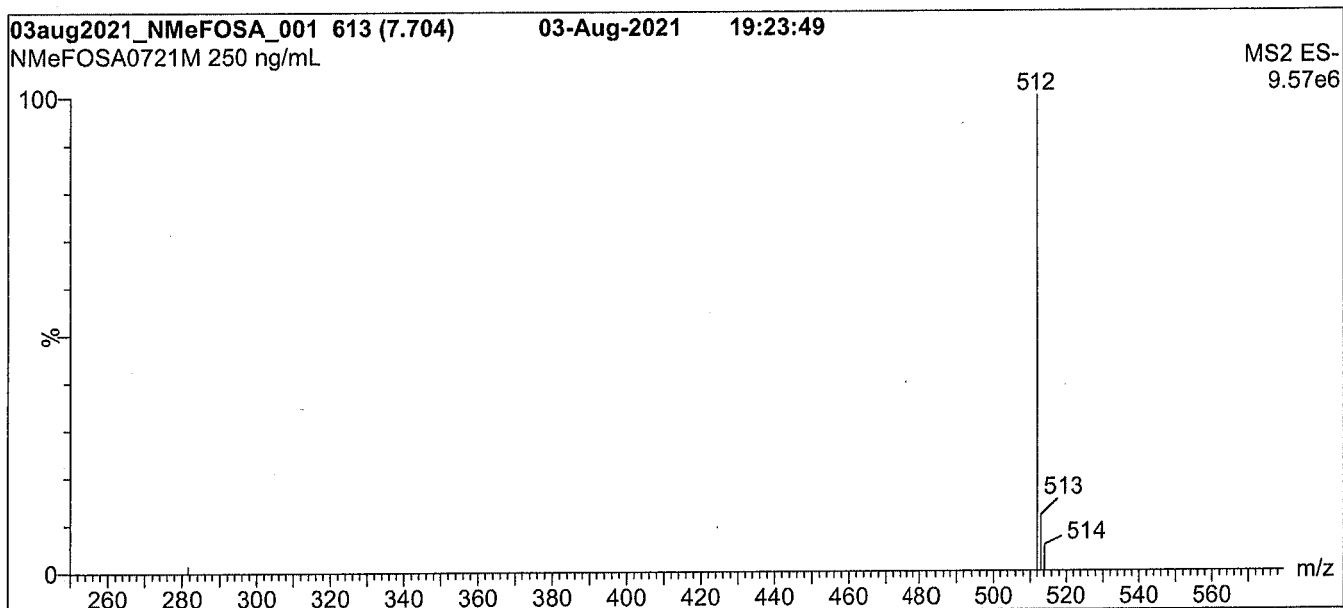
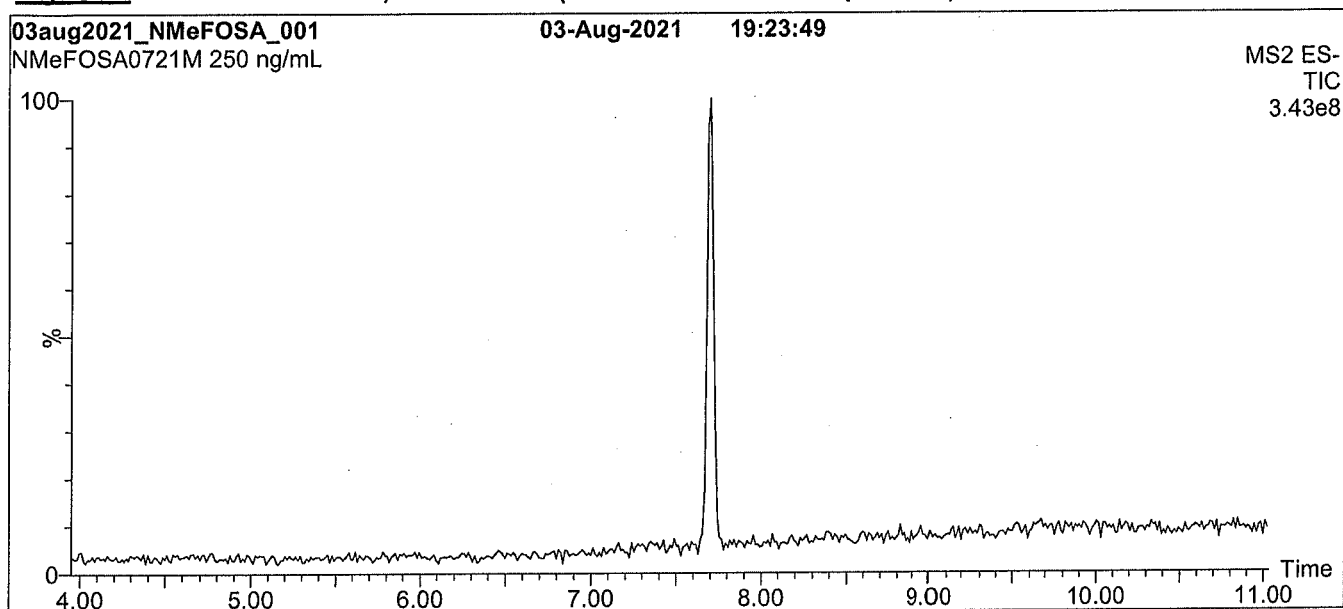
At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).



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

Figure 1: N-MeFOSA-M; LC/MS Data (Full Scan and Mass Spectrum)**Conditions for Figure 1:**

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

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

Mobile phase: Gradient

Start: 40% H₂O / 60% (80:20 MeOH:ACN)
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ L/min

MS Parameters:

Experiment: Full Scan (250 - 850 amu)

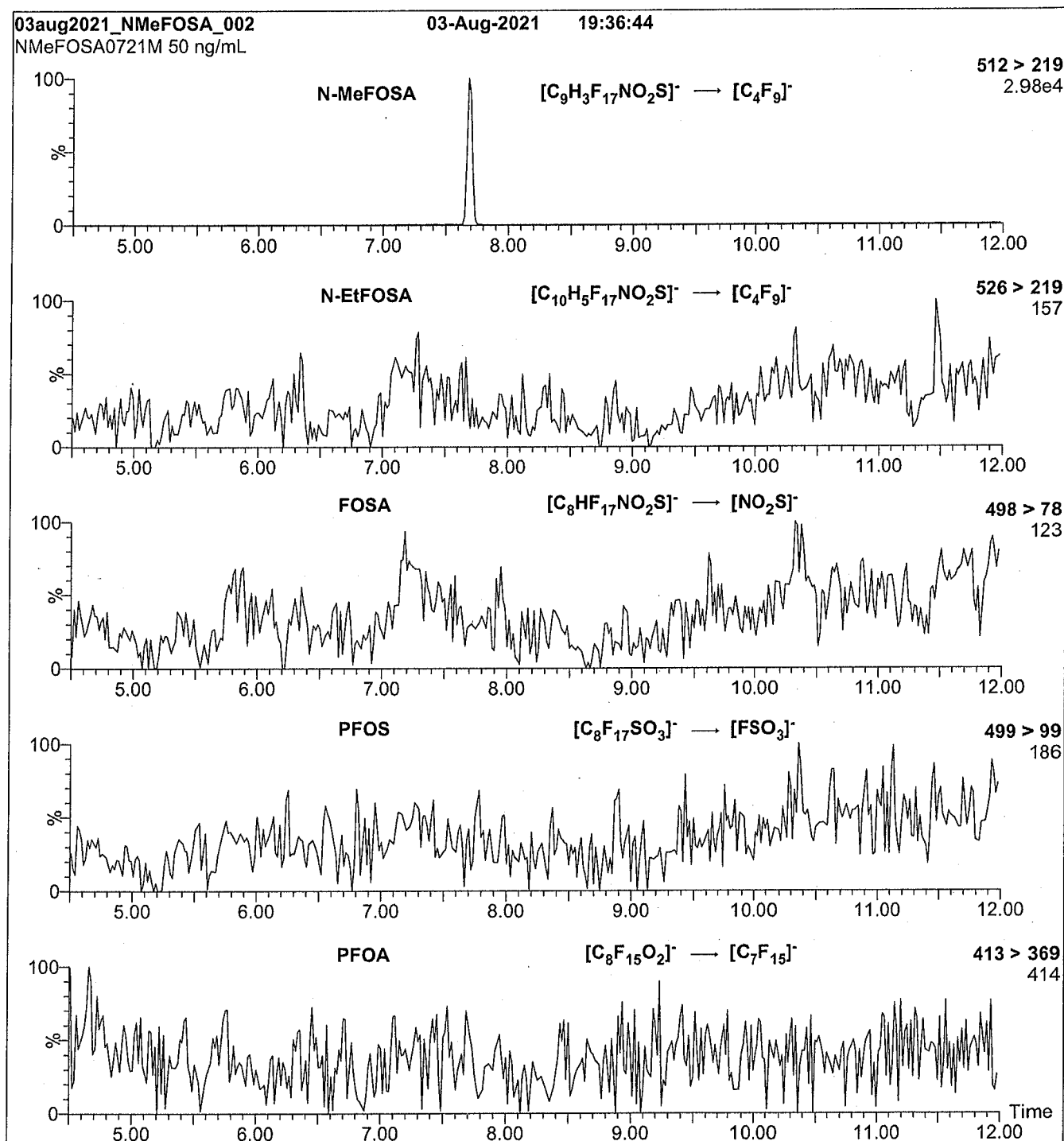
Source: Electrospray (negative)

Capillary Voltage (kV) = 1.00

Cone Voltage (V) = 44.00

Desolvation Temperature (°C) = 500

Desolvation Gas Flow (L/hr) = 1000

Figure 2: N-MeFOSA-M; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 2:**

Injection: On-column (N-MeFOSA-M)

Mobile phase: Same as Figure 1

Flow: 300 μ L/min**MS Parameters:**

Collision Gas (mbar) = 3.41e-3

Collision Energy (eV) = 24

Analytical Standard Record

22C0312

Description: PFAS - SAS NMeFOSA 50ug/mL
Standard Type: Analyte Spike
Solvent: Methanol
Final Volume (mLs): 1
Vials: 1

Expires: 08/03/2026
Prepared: 03/15/2022
Prepared By: Dipti Gokal
Department: PFAS
Last Edit: 03/15/2022 16:00 by DAG

Analyte	Parent	CAS Number	Concentration	Units
NMeFOSA		31506-32-8	50	ug/mL



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

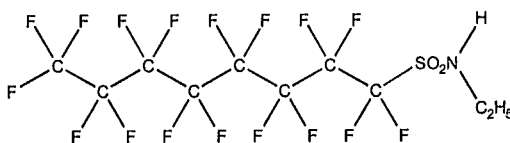
PRODUCT CODE: N-EtFOSA-M
COMPOUND: N-ethylperfluoro-1-octanesulfonamide

LOT NUMBER: NEtFOSA0821M

22C0313

STRUCTURE:

CAS #: 4151-50-2



MOLECULAR FORMULA: $C_{10}H_{17}F_{17}NO_2S$
CONCENTRATION: $50.0 \pm 2.5 \mu\text{g/mL}$
CHEMICAL PURITY: >98%

MOLECULAR WEIGHT: 527.20
SOLVENT(S): Methanol

LAST TESTED: (mm/dd/yyyy) 08/12/2021
EXPIRY DATE: (mm/dd/yyyy) 08/12/2026
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (Full Scan and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

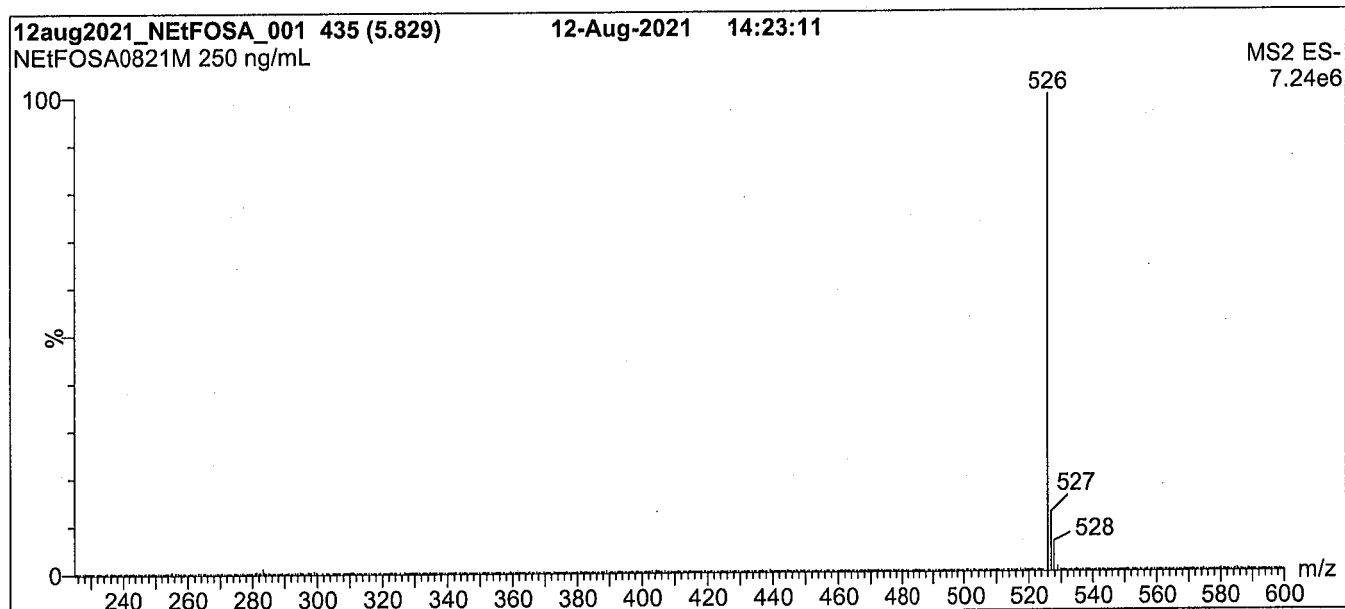
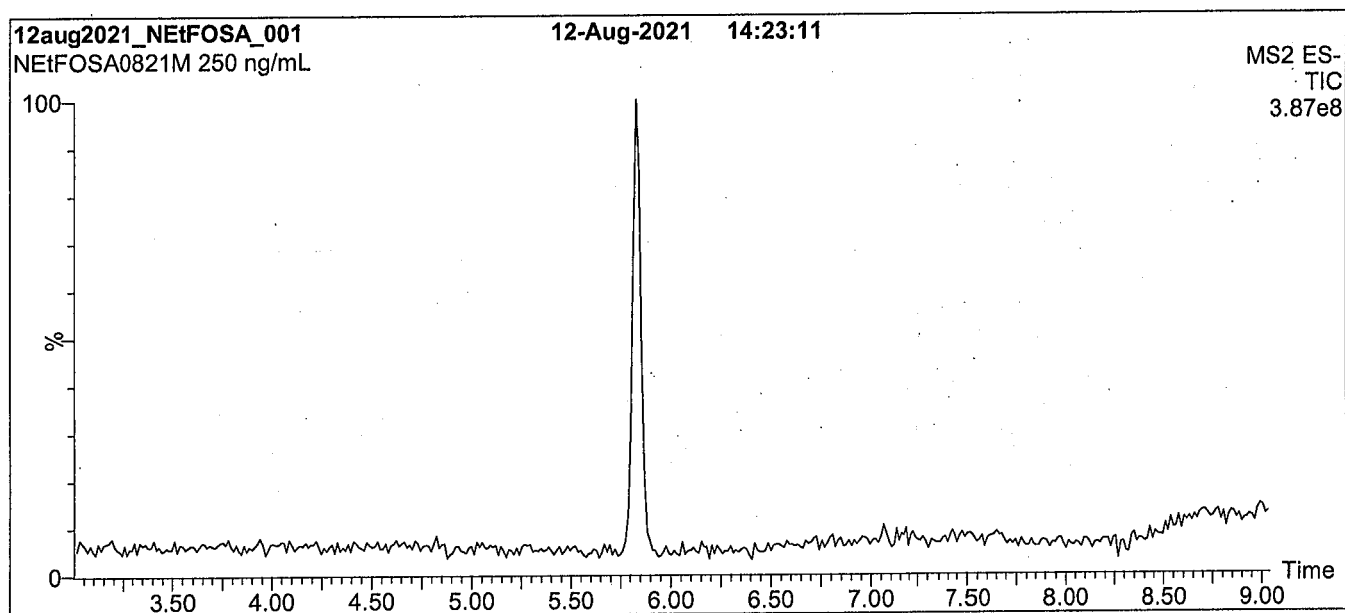
- See page 2 for further details.

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Certified By: 
B.G. Chittim, General Manager

Date: 08/16/2021
(mm/dd/yyyy)

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Figure 1: N-EtFOSA-M; LC/MS Data (Full Scan and Mass Spectrum)**Conditions for Figure 1:**

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

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

Mobile phase: Gradient

Start: 30% H₂O / 70% (80:20 MeOH:ACN)
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ L/min

MS Parameters:

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 1.00
Cone Voltage (V) = 44.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (L/hr) = 1000

Analytical Standard Record

22C0313

Description:	PFAS - SAS NETFOSA 50ug/mL	Expires:	08/12/2026
Standard Type:	Other	Prepared:	03/15/2022
Solvent:	Methanol	Prepared By:	Wellington Laboratories (Lot#:
Final Volume (mL):	1	Department:	NETFOSA0821M)
Vials:	1	Last Edit:	08/17/2022 10:49 by LYA

Analyte	Parent	CAS Number	Concentration	Units
NETFOSA		4151-50-2	50	ug/mL

**WELLINGTON**
LABORATORIES**CERTIFICATE OF ANALYSIS**
DOCUMENTATION**PFAC-MXF** 22F0058**Native Replacement PFAS
Solution/Mixture**

PRODUCT CODE: PFAC-MXF
LOT NUMBER: PFACMXF0122
SOLVENT(S): Methanol / Water (<1%)
DATE PREPARED: (mm/dd/yyyy) 01/10/2022
LAST TESTED: (mm/dd/yyyy) 01/11/2022
EXPIRY DATE: (mm/dd/yyyy) 01/11/2025
RECOMMENDED STORAGE: Refrigerate ampoule

DESCRIPTION:

PFAC-MXF is a solution/mixture of sodium dodecafluoro-3H-4,8-dioxanonanoate (NaDONA), the major and minor components of F-53B (9Cl-PF3ONS and 11Cl-PF3OUdS), and GenX (HFPO-DA). The components and their concentrations are given in Table A.

The individual native components of this mixture all have chemical purities of >98%.

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

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INTENDED USE:

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

HANDLING:

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

SYNTHESIS / CHARACTERIZATION:

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

HOMOGENEITY:

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

UNCERTAINTY:

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

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

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).



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

Table A: PFAC-MXF; Components and Concentrations (ng/mL; \pm 5% in Methanol/Water (<1%))

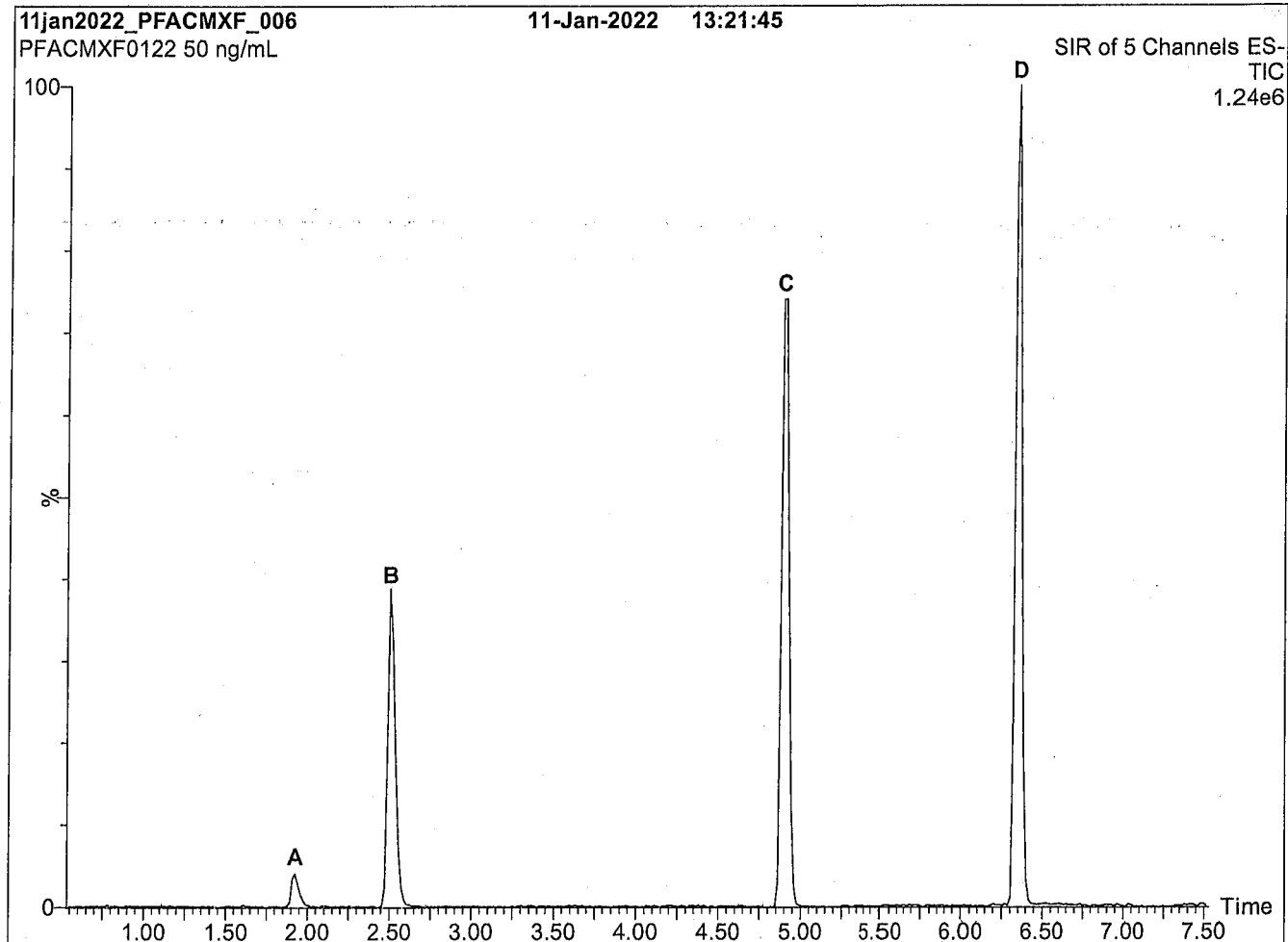
Compound	Acronym	Concentration* (ng/ml)		Peak Assignment in Figure 1
2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-propanoic acid	HFPO-DA	2000		A
Compound	Acronym	Concentration* (ng/mL)		Peak Assignment in Figure 1
		as the salt	as the acid	
Sodium dodecafluoro-3H-4,8-dioxanonanoate	NaDONA	2000	1890	B
Potassium 9-chlorohexadecafluoro-3-oxanonane-1-sulfonate	9Cl-PF3ONS	2000	1870	C
Potassium 11-chloroeicosafluoro-3-oxaundecane-1-sulfonate	11Cl-PF3OUdS	2000	1890	D

* Concentrations have been rounded to three significant figures.

Certified By: 

B.G. Chittim, General Manager

Date: 01/12/2022
(mm/dd/yyyy)

Figure 1: PFAC-MXF; LC/MS Data (SIR)**Conditions for Figure 1:**

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

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

Mobile phase: Gradient

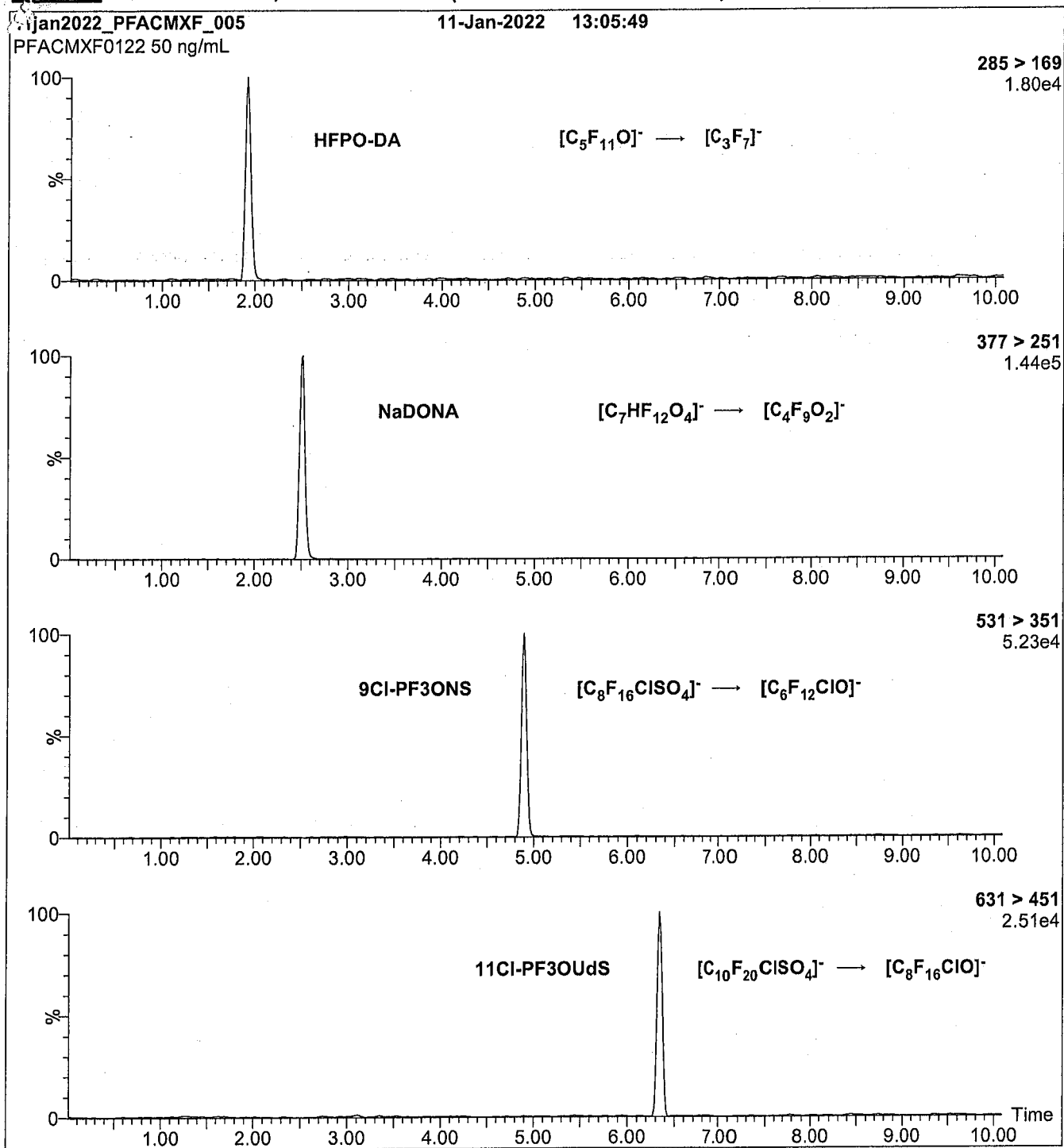
Start: 45% H₂O / 55% (80:20 MeOH:ACN)
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for 2 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ L/min

MS Parameters:

Experiment: SIR

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = variable (15-74)
Desolvation Temperature (°C) = 325
Desolvation Gas Flow (L/hr) = 1000

Figure 2: PFAC-MXF; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 2:**

Injection: On-column (PFAC-MXF)

Mobile phase: Same as Figure 1

Flow: 300 μ L/min**MS Parameters:**

Collision Gas (mbar) = 3.43e-3

Collision Energy (eV) = 6-60 (variable)

Analytical Standard Record

22F0058

Description: PFAS - MIX MXF 2ug/mL
Standard Type: Other
Solvent: MeOH
Final Volume (mL): 1.2
Vials: 1

Expires: 01/11/2025
Prepared: 01/10/2022
Prepared By: Lizbeth Andres
Department: PFAS
Last Edit: 09/15/2022 09:32 by DAG

Analyte	Parent	CAS Number	Concentration	Units
11CL-PF3OUDS		763051-92-9	1.89	ug/mL
9CL-PF3ONS		756426-58-1	1.87	ug/mL
ADONA		919005-14-4	1.89	ug/mL
HFPO-DA		13252-13-6	2	ug/mL



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PFAC-MXH 22F0059

Native Per- and Poly-fluoroalkyl Substance Solution/Mixture

PRODUCT CODE: PFAC-MXH
LOT NUMBER: PFACMXH0921
SOLVENT(S): Methanol / Isopropanol (2%) / Water (<1%)
DATE PREPARED: (mm/dd/yyyy) 09/09/2021
LAST TESTED: (mm/dd/yyyy) 09/14/2021
EXPIRY DATE: (mm/dd/yyyy) 09/14/2026
RECOMMENDED STORAGE: Refrigerate ampoule

DESCRIPTION:

PFAC-MXH is a solution/mixture of eleven native linear perfluoroalkylcarboxylic acids (C_4 - C_{14}), eight native perfluoroalkanesulfonates (C_4 , C_6 , C_7 , C_8 , C_{10} and C_{12} linear; C_6 and C_8 linear and branched), three native fluorotelomer sulfonates (4:2, 6:2, and 8:2), two native linear and branched perfluorooctanesulfonamidoacetic acids, and perfluoro-1-octanesulfonamide (FOSA). The components and their concentrations are given in Table A.

The individual components of this mixture all have chemical purities of >98%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
 Table B: Isomeric Components and Percent Composition of br-NMeFOSAA
 Table C: Isomeric Components and Percent Composition of br-NEtFOSAA
 Table D: Isomeric Components and Percent Composition of PFHxSK
 Table E: Isomeric Components and Percent Composition of PFOSK
 Figure 1: LC/MS Data (SIR)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acids to their respective methyl esters.

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INTENDED USE:

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HANDLING:

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

SYNTHESIS / CHARACTERIZATION:

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

HOMOGENEITY:

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

UNCERTAINTY:

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

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

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

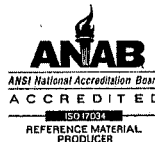
Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

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

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).



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

Table A: PFAC-MXH; Components and Concentrations
($\mu\text{g/mL}$, $\pm 5\%$ in methanol / isopropanol (2%) / water (<1%))

Compound	Acronym	Concentration* (µg/mL)		Peak Assignment in Figure 1
Perfluoro-n-butanoic acid	PFBA	4.00		1
Perfluoro-n-pentanoic acid	PFPeA	2.00		2
Perfluoro-n-hexanoic acid	PFHxA	1.00		5
Perfluoro-n-heptanoic acid	PFHpA	1.00		7
Perfluoro-n-octanoic acid	PFOA	1.00		11
Perfluoro-n-nonanoic acid	PFNA	1.00		14
Perfluoro-n-decanoic acid	PFDA	1.00		18
Perfluoro-n-undecanoic acid	PFUdA	1.00		23
Perfluoro-n-dodecanoic acid	PFDoA	1.00		26
Perfluoro-n-tridecanoic acid	PFTrDA	1.00		27
Perfluoro-n-tetradecanoic acid	PFTeDA	1.00		29
Perfluoro-1-octanesulfonamide	FOSA	1.00		25
N-methylperfluorooctanesulfonamidoacetic acid ^a	N-MeFOSAA: linear isomer	0.760		20
	N-MeFOSAA: ∑ branched isomers	0.240		17
N-ethylperfluorooctanesulfonamidoacetic acid ^b	N-EtFOSAA: linear isomer	0.775		22
	N-EtFOSAA: ∑ branched isomers	0.225		21
Compound	Acronym	Concentration* (µg/mL)		Peak Assignment in Figure 1
		as the salt	as the acid	
Potassium perfluoro-1-butanesulfonate	L-PFBS	1.00	0.887	3
Sodium perfluoro-1-pentanesulfonate	L-PFPeS	1.00	0.941	6
Potassium perfluorohexanesulfonate ^c	PFHxSK: linear isomer	0.811	0.741	9
	PFHxSK: ∑ branched isomers	0.189	0.173	8
Sodium perfluoro-1-heptanesulfonate	L-PFHpS	1.00	0.953	12
Potassium perfluorooctanesulfonate ^d	PFOSK: linear isomer	0.788	0.732	15
	PFOSK: ∑ branched isomers	0.211	0.196	13
Sodium perfluoro-1-nonanesulfonate	L-PFNS	1.00	0.962	19
Sodium perfluoro-1-decanesulfonate	L-PFDS	1.00	0.965	24
Sodium perfluoro-1-dodecanesulfonate	L-PFDoS	1.00	0.970	28
Sodium 1H,1H,2H,2H-perfluorohexanesulfonate	4:2FTS	4.00	3.75	4
Sodium 1H,1H,2H,2H-perfluorooctanesulfonate	6:2FTS	4.00	3.80	10
Sodium 1H,1H,2H,2H-perfluorodecanesulfonate	8:2FTS	4.00	3.84	16

^a See Table B for percent composition of linear and branched N-MeFOSAA isomers.

^b See Table C for percent composition of linear and branched N-EtFOSAA isomers.

^c See Table D for percent composition of linear and branched PFHxSK isomers.

^d See Table E for percent composition of linear and branched PFOSK isomers.

* Concentrations have been rounded to three significant figures.

Certified By: 

B.G. Chittim, General Manager

Date: 09/23/2021

(mm/dd/yyyy)

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

Isomer	Compound	Structure	Percent Composition by ^{19}F -NMR	
1	N-methylperfluoro-1-octanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_7\text{SO}_2\text{N}(\text{CH}_3)\text{CH}_2\text{CO}_2\text{H}$	76.0	76.0
2	N-methylperfluoro-3-methylheptanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_3\text{CF}(\text{CF}_3)\text{SO}_2\text{N}(\text{CH}_3)\text{CH}_2\text{CO}_2\text{H}$	0.7	24.0
3	N-methylperfluoro-4-methylheptanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_2\text{CF}(\text{CF}_3)\text{SO}_2\text{N}(\text{CH}_3)\text{CH}_2\text{CO}_2\text{H}$	2.0	
4	N-methylperfluoro-5-methylheptanesulfonamidoacetic acid	$\text{CF}_3\text{CF}_2\text{CF}(\text{CF}_3)\text{SO}_2\text{N}(\text{CH}_3)\text{CH}_2\text{CO}_2\text{H}$	6.0	
5	N-methylperfluoro-6-methylheptanesulfonamidoacetic acid	$\text{CF}_3\text{CF}(\text{CF}_3)\text{SO}_2\text{N}(\text{CH}_3)\text{CH}_2\text{CO}_2\text{H}$	14.0	
6	N-methylperfluoro-5,5-dimethylhexanesulfonamidoacetic acid	$\text{CF}_3\text{C}(\text{CF}_3)_2\text{SO}_2\text{N}(\text{CH}_3)\text{CH}_2\text{CO}_2\text{H}$	0.2	
7	Other Unidentified Isomers		1.1	

* Percent of total N-methylperfluorooctanesulfonamidoacetic acid isomers only.

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

Isomer	Compound	Structure	Percent Composition by ^{19}F -NMR	
1	N-ethylperfluoro-1-octanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_7\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ C_2H_5	77.5	77.5
2	N-ethylperfluoro-3-methylheptanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_3\text{CF}(\text{CF}_2)_2\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ CF_3 C_2H_5	2.3	22.5
3	N-ethylperfluoro-4-methylheptanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_2\text{CF}(\text{CF}_2)_3\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ CF_3 C_2H_5	2.2	
4	N-ethylperfluoro-5-methylheptanesulfonamidoacetic acid	$\text{CF}_3\text{CF}_2\text{CF}(\text{CF}_2)_4\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ CF_3 C_2H_5	5.4	
5	N-ethylperfluoro-6-methylheptanesulfonamidoacetic acid	$\text{CF}_3\text{CF}(\text{CF}_2)_5\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ CF_3 C_2H_5	10.4	
6	N-ethylperfluoro-5,5-dimethylhexanesulfonamidoacetic acid	CF_3 $\text{CF}_3\text{C}(\text{CF}_2)_4\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ CF_3 C_2H_5	0.3	
7	N-ethylperfluoro-4,5-dimethylhexanesulfonamidoacetic acid	CF_3 $\text{CF}_3\text{CFCF}(\text{CF}_2)_3\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ CF_3 C_2H_5	0.3	
8	N-ethylperfluoro-3,5-dimethylhexanesulfonamidoacetic acid	CF_3 $\text{CF}_3\text{CFCF}_2\text{CF}(\text{CF}_2)_2\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ CF_3 C_2H_5	0.3	
9	Other Unidentified Isomers		1.3	

* Percent of total N-ethylperfluorooctanesulfonamidoacetic acid isomers only.

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

Isomer	Compound	Structure	Percent Composition by ^{19}F -NMR	
1	Potassium perfluoro-1-hexanesulfonate	$\text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+$	81.1	81.1
2	Potassium 1-trifluoromethylperfluoropentanesulfonate**	$\begin{array}{c} \text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}(\text{SO}_3^-\text{K}^+)\text{CF}_3 \\ \\ \text{CF}_3 \end{array}$	2.9	18.9
3	Potassium 2-trifluoromethylperfluoropentanesulfonate	$\begin{array}{c} \text{CF}_3\text{CF}_2\text{CF}_2\text{CF}(\text{CF}_3)\text{CF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{array}$	1.4	
4	Potassium 3-trifluoromethylperfluoropentanesulfonate	$\begin{array}{c} \text{CF}_3\text{CF}_2\text{CF}(\text{CF}_3)\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{array}$	5.0	
5	Potassium 4-trifluoromethylperfluoropentanesulfonate	$\begin{array}{c} \text{CF}_3\text{CF}(\text{CF}_3)\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{array}$	8.9	
6	Potassium 3,3-di(trifluoromethyl)perfluorobutanesulfonate	$\begin{array}{c} \text{CF}_3 \\ \\ \text{CF}_3\text{C}(\text{CF}_3)_2\text{CF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{array}$	0.2	
7	Other Unidentified Isomers		0.5	

* Percent of total perfluorohexanesulfonate isomers only.

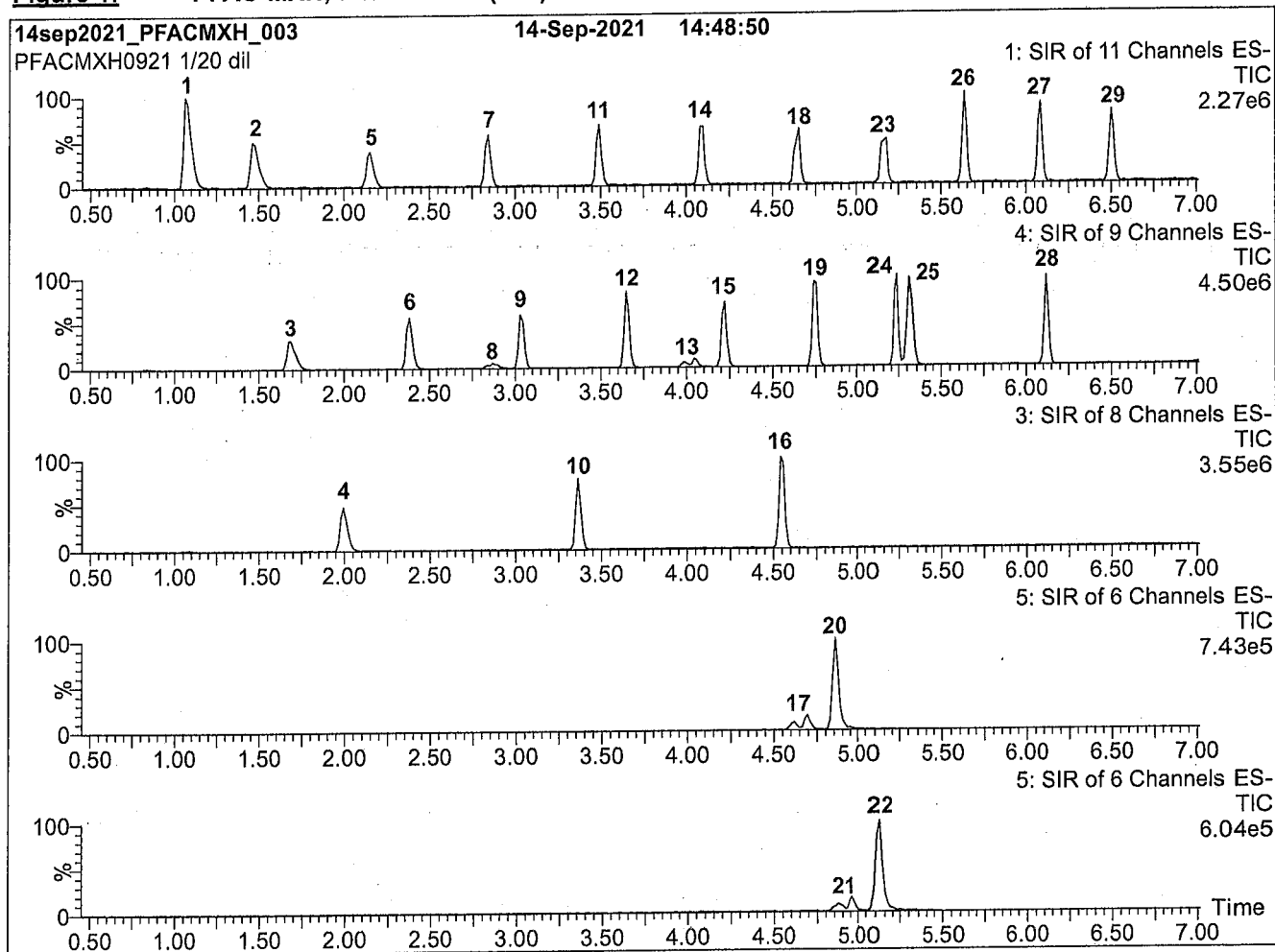
** Systematic Name: Potassium perfluorohexane-2-sulfonate.

Table E: PFOSK; Isomeric Components and Percent Composition (by ^{19}F -NMR)*

Isomer	Compound	Structure	Percent Composition by ^{19}F -NMR	
1	Potassium perfluoro-1-octanesulfonate	$\text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+$	78.8	78.8
2	Potassium 1-trifluoromethylperfluoroheptanesulfonate**	$\begin{array}{c} \text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{CFSO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{array}$	1.2	21.1
3	Potassium 2-trifluoromethylperfluoroheptanesulfonate	$\begin{array}{c} \text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{CFCF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{array}$	0.6	
4	Potassium 3-trifluoromethylperfluoroheptanesulfonate	$\begin{array}{c} \text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CFCF}_2\text{CF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{array}$	1.9	
5	Potassium 4-trifluoromethylperfluoroheptanesulfonate	$\begin{array}{c} \text{CF}_3\text{CF}_2\text{CF}_2\text{CFCF}_2\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{array}$	2.2	
6	Potassium 5-trifluoromethylperfluoroheptanesulfonate	$\begin{array}{c} \text{CF}_3\text{CF}_2\text{CFCF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{array}$	4.5	
7	Potassium 6-trifluoromethylperfluoroheptanesulfonate	$\begin{array}{c} \text{CF}_3\text{CFCF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{array}$	10.0	
8	Potassium 5,5-di(trifluoromethyl)perfluorohexanesulfonate	$\begin{array}{c} \text{CF}_3 \\ \\ \text{CF}_3\text{CCF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{array}$	0.2	
9	Potassium 4,4-di(trifluoromethyl)perfluorohexanesulfonate	$\begin{array}{c} \text{CF}_3 \\ \\ \text{CF}_3\text{CF}_2\text{CCF}_2\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{array}$	0.03	
10	Potassium 4,5-di(trifluoromethyl)perfluorohexanesulfonate	$\begin{array}{c} \text{CF}_3 \\ \\ \text{CF}_3\text{CFCF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{array}$	0.4	
11	Potassium 3,5-di(trifluoromethyl)perfluorohexanesulfonate	$\begin{array}{c} \text{CF}_3 \\ \\ \text{CF}_3\text{CFCF}_2\text{CFCF}_2\text{CF}_2\text{SO}_3^-\text{K}^+ \\ \\ \text{CF}_3 \end{array}$	0.07	

* Percent of total perfluorooctanesulfonate isomers only.

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

Figure 1: PFAC-MXH; LC/MS Data (SIR)**Conditions for Figure 1:**

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

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

Mobile phase: Gradient

Start: 50% H₂O / 50% (80:20 MeOH:ACN)
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 9 min and hold for 2 min
before returning to initial conditions in 1 min.
Time: 15 min

Flow: 300 μ L/min

MS Parameters:

Experiment: SIR

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = variable (2-74)
Desolvation Temperature (°C) = 350
Desolvation Gas Flow (L/hr) = 1000

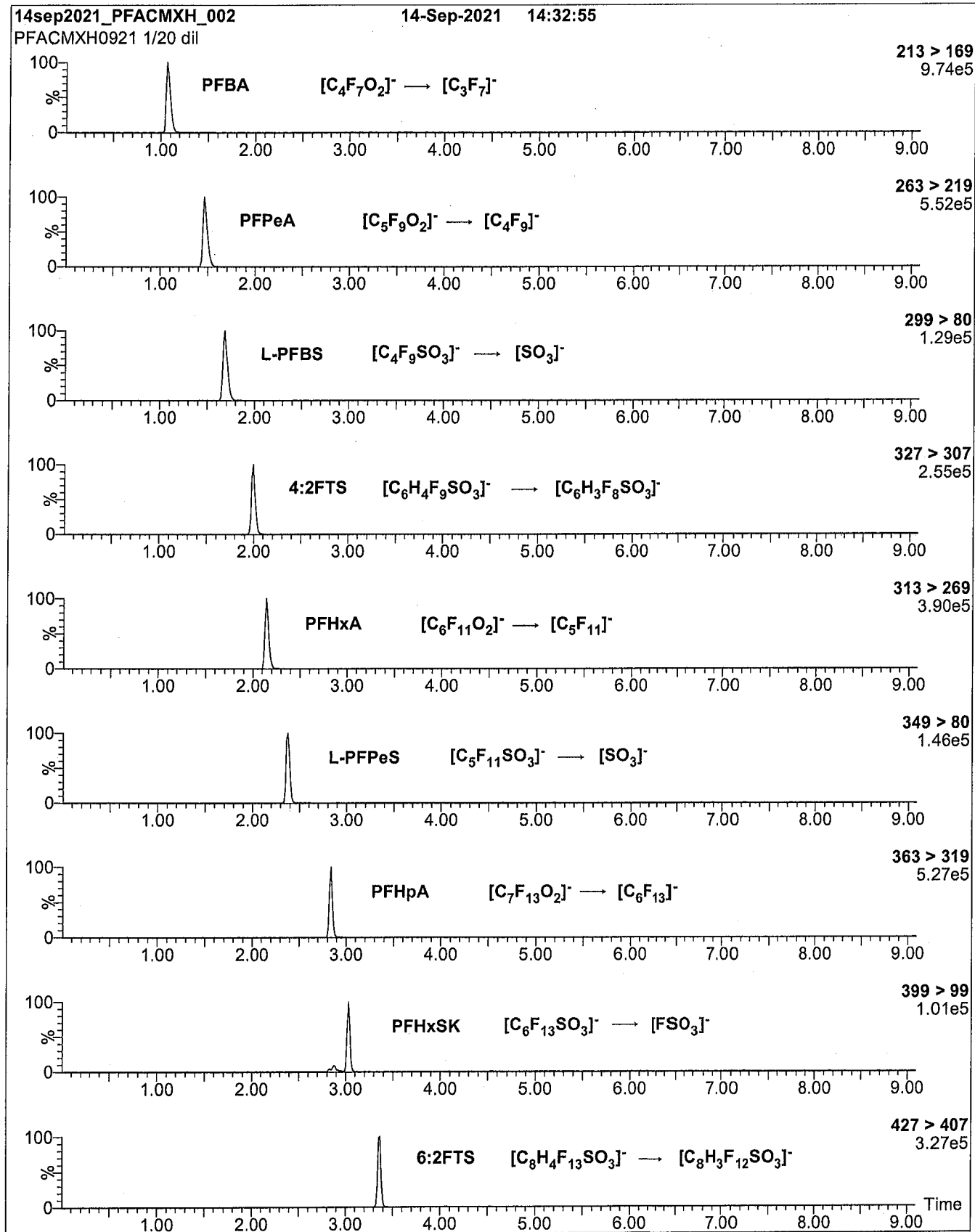
Figure 2: PFAC-MXH; LC/MS/MS Data (Selected MRM Transitions)

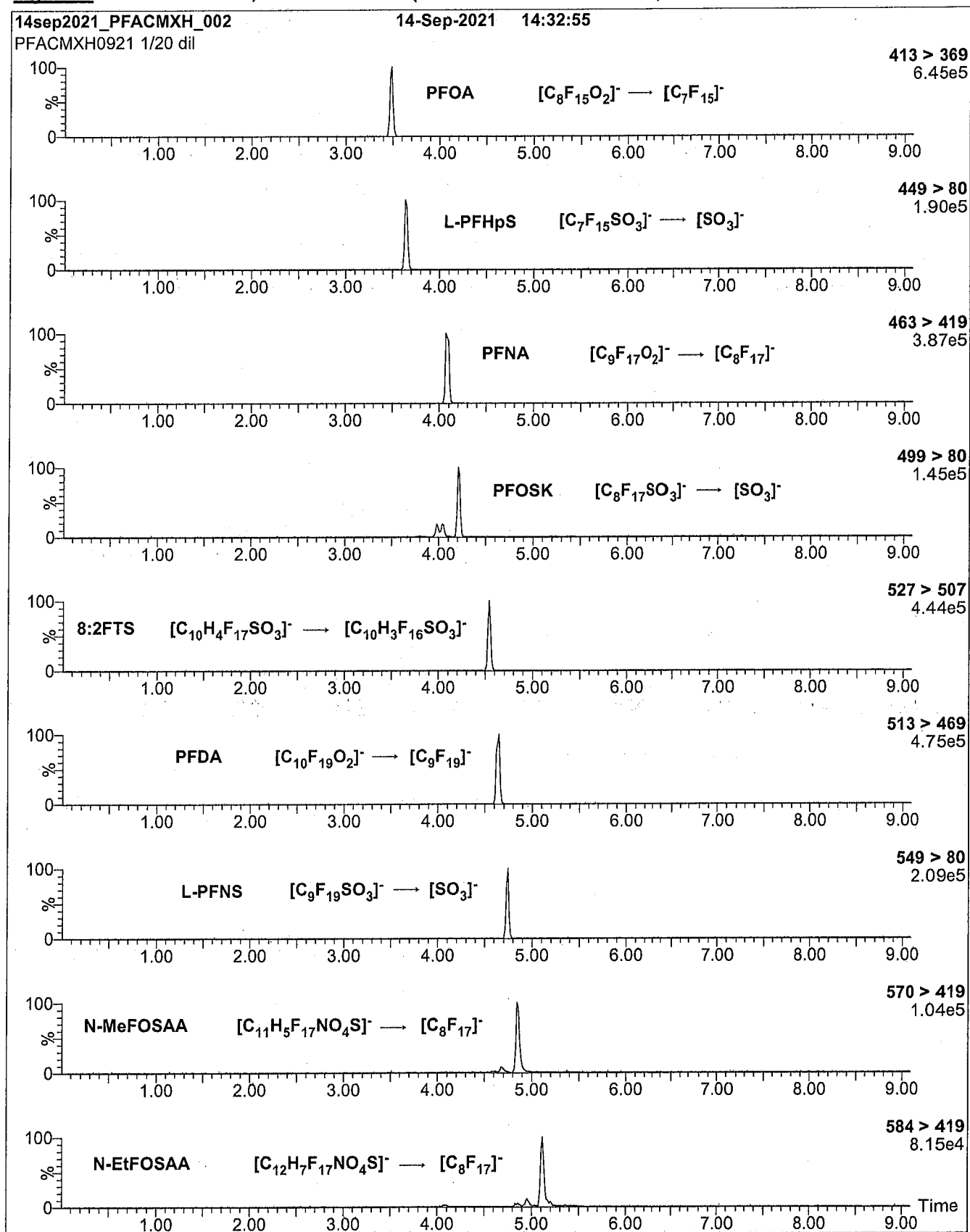
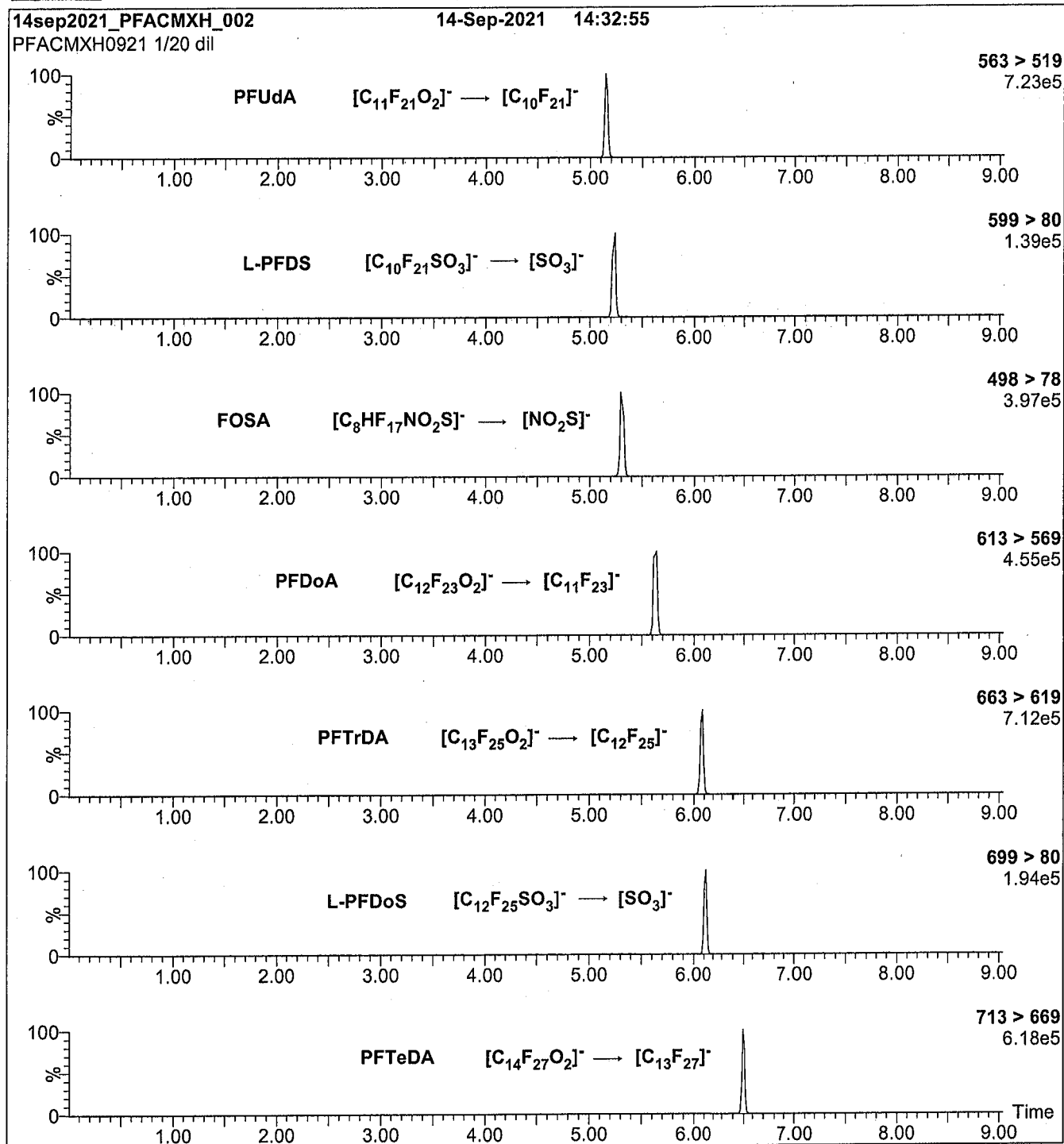
Figure 2: PFAC-MXH; LC/MS/MS Data (Selected MRM Transitions)

Figure 2: PFAC-MXH; LC/MS/MS Data (Selected MRM Transitions)**Conditions for Figure 2:**

Injection: On-column (PFAC-MXH)

Mobile phase: Same as Figure 1

Flow: 300 μ L/min**MS Parameters:**

Collision Gas (mbar) = 3.31e-3

Collision Energy (eV) = 6-60 (variable)

Analytical Standard Record

22F0059

Description: PFAS - MIX MXH 2ug/mL
 Standard Type: Other
 Solvent: MeOH
 Final Volume (mLs): 1.2
 Vials: 1

Expires: 09/14/2026
 Prepared: 09/09/2021
 Prepared By: Lizbeth Andres
 Department: PFAS
 Last Edit: 09/15/2022 09:33 by DAG

Analyte	Parent	CAS Number	Concentration	Units
4:2FTS		757124-72-4	3.75	ug/mL
6:2FTS		27619-97-2	3.8	ug/mL
8:2FTS		39108-34-4	3.84	ug/mL
NEtFOSAA		2991-50-6	1	ug/mL
NMeFOSAA		2355-31-9	1	ug/mL
PFBA		375-22-4	4	ug/mL
PFBS		375-73-5	0.887	ug/mL
PFDA		335-76-2	1	ug/mL
PFDOA		307-55-1	1	ug/mL
PFDOS		79780-39-5	0.97	ug/mL
PFDS		335-77-3	0.965	ug/mL
PFHPA		375-85-9	1	ug/mL
PFHPS		375-92-8	0.953	ug/mL
PFHXA		307-24-4	1	ug/mL
PFHXS		355-46-4	0.914	ug/mL
PFNA		375-95-1	1	ug/mL
PFNS		68259-12-1	0.962	ug/mL
PFOA		335-67-1	1	ug/mL
PFOS		1763-23-1	0.928	ug/mL
PFOSA		754-91-6	1	ug/mL
PFPEA		2706-90-3	2	ug/mL
PFPEs		630402-22-1	0.941	ug/mL
PFTEDA		376-06-7	1	ug/mL
PFTRDA		72629-94-8	1	ug/mL
PFUnA		2058-94-8	1	ug/mL

**WELLINGTON**
LABORATORIES**CERTIFICATE OF ANALYSIS**
DOCUMENTATION**PFAC-MXG** 22F0061**Native Perfluoroalkyl Ether Carboxylic
Acids and Sulfonate Solution/Mixture**

PRODUCT CODE: PFAC-MXG
LOT NUMBER: PFACMXG0222
SOLVENT(S): Methanol/Water (<1%)
DATE PREPARED: (mm/dd/yyyy) 02/07/2022
LAST TESTED: (mm/dd/yyyy) 02/22/2022
EXPIRY DATE: (mm/dd/yyyy) 02/22/2027
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DESCRIPTION:

PFAC-MXG is a solution/mixture of three native perfluoroalkyl ether carboxylic acids and a native perfluoroalkyl ether sulfonate. The components and their concentrations are given in Table A.

The individual components all have chemical purities of >98%.

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acids to their respective methyl esters.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

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

INTENDED USE:

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

HANDLING:

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

SYNTHESIS / CHARACTERIZATION:

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

HOMOGENEITY:

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

UNCERTAINTY:

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

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

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A1226), and ISO 17034 by ANSI National Accreditation Board (ANAB; AR-1523).



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

Table A: PFAC-MXG; Components and Concentrations (ng/mL; \pm 5% in methanol/water (<1%))

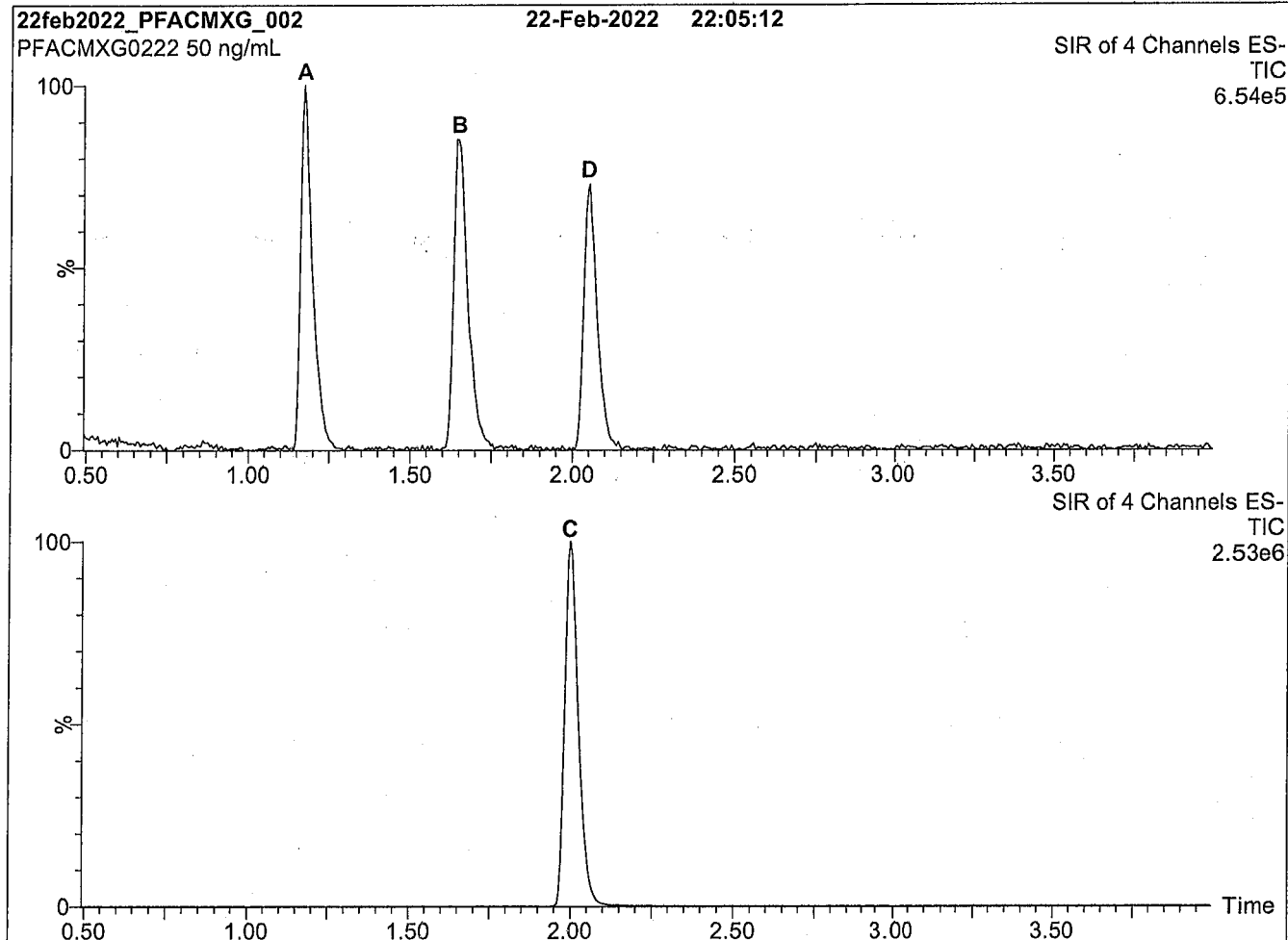
Compound	Acronym	Concentration (ng/mL)		Peak Assignment in Figure 1
Perfluoro-4-oxapentanoic acid	PF4OPeA	2000		A
Perfluoro-5-oxahexanoic acid	PF5OHxA	2000		B
Perfluoro-3,6-dioxaheptanoic acid	3,6-OPFHpA	2000		D
Compound	Acronym	Concentration* (ng/mL)		Peak Assignment in Figure 1
		as the salt	as the acid	
Potassium perfluoro(2-ethoxyethane)sulfonate	PFEESA	2000	1780	C

* Concentrations have been rounded to three significant figures.

Certified By: 

B.G. Chittim, General Manager

Date: 03/03/2022
(mm/dd/yyyy)

Figure 1: PFAC-MXG; LC/MS Data (SIR)**Conditions for Figure 1:**

Waters Acquity Ultra Performance LC
Waters Xevo TQ-S micro MS

Chromatographic Conditions:

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

Mobile phase: Gradient

Start: 50% H₂O / 50% (80:20 MeOH:ACN)
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 8 min and hold for 2 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 μ L/min

MS Parameters:

Experiment: SIR

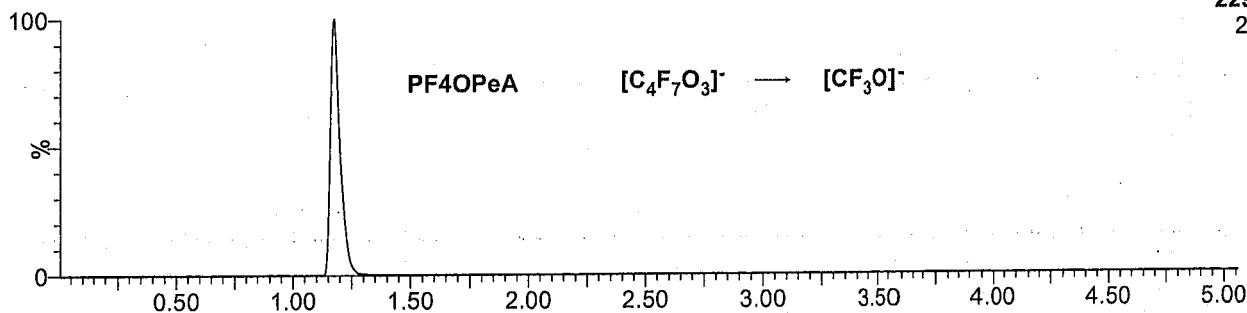
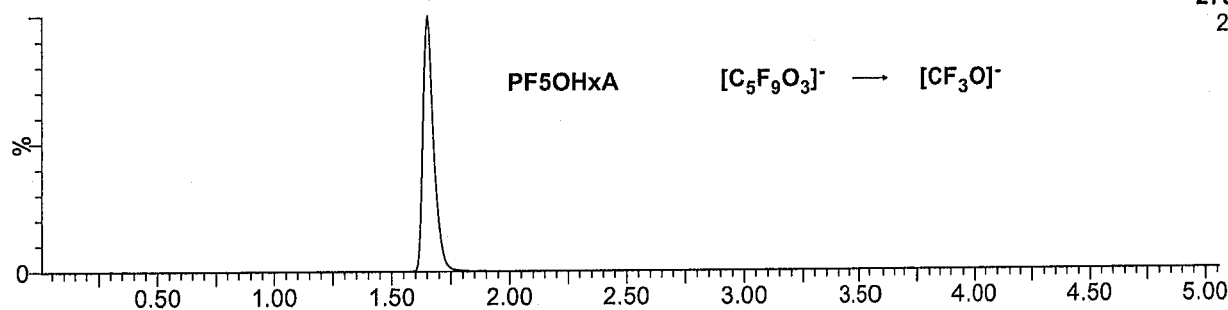
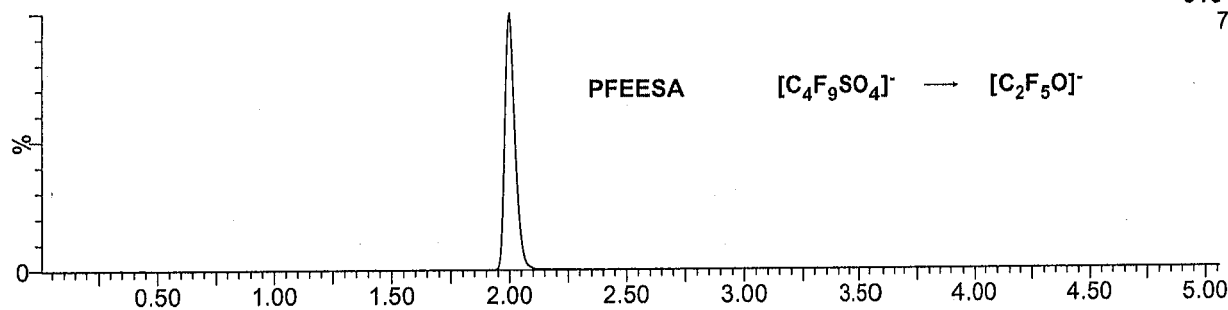
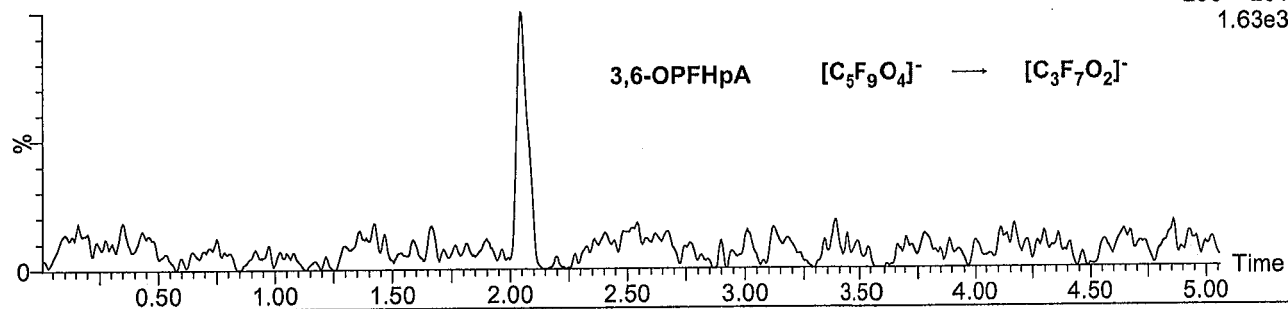
Source: Electrospray (negative)
Capillary Voltage (kV) = 1.00
Cone Voltage (V) = variable (15-35)
Desolvation Temperature ($^{\circ}$ C) = 500
Desolvation Gas Flow (L/hr) = 1000

Figure 2: PFAC-MXG; LC/MS/MS Data (Selected MRM Transitions)

22feb2022_PFACMXG_003

22-Feb-2022 22:18:09

PFACMXG0222 50 ng/mL

229 > 85
2.70e5279 > 85
2.89e5315 > 135
7.56e5295 > 201
1.63e3**Conditions for Figure 2:**

Injection: On-column (PFAC-MXG)

Mobile phase: Same as Figure 1

Flow: 300 μ L/min**MS Parameters:**

Collision Gas (mbar) = 3.33e-3

Collision Energy (eV) = 8-48 (variable)

Analytical Standard Record

22F0061

Description:	PFAS - MIX MXG 2ug/mL	Expires:	02/22/2027
Standard Type:	Other	Prepared:	02/07/2022
Solvent:	MeOH	Prepared By:	Lizbeth Andres
Final Volume (mLs):	1	Department:	PFAS
Vials:	1	Last Edit:	09/15/2022 09:34 by DAG
Comments:	contains NFHDA PFMBA PFMPA PFEESA @ 2ug/mL		

Analyte	Parent	CAS Number	Concentration	Units
NFDHA		151772-58-6	2	ug/mL
PFEESA		113507-82-7	1.78	ug/mL
PFMBA		863090-89-5	2	ug/mL
PFMPA		377-73-1	2	ug/mL

Analytical Standard Record

22I0153

Description: PFAS - MIX 1633 200ng/mL
 Standard Type: Analyte Spike
 Solvent: MeOH
 Final Volume (mLs): 6
 Vials: 1

Expires: 01/11/2025
 Prepared: 09/13/2022
 Prepared By: Dipti Gokal
 Department: PFAS
 Last Edit: 09/15/2022 09:34 by DAG

Analyte	Parent	CAS Number	Concentration	Units
NMeFOSE	22C0307	24448-09-7	0.8	ug/mL
3:3FTCA	22C0308	113507-82-7	0.8	ug/mL
5:3FTCA	22C0309	914637-49-3	0.8	ug/mL
NEtFOSE	22C0310	1691-99-2	0.8	ug/mL
7:3FTCA	22C0311	812-70-4	0.8	ug/mL
NMeFOSA	22C0312	31506-32-8	0.8	ug/mL
NEtFOSA	22C0313	4151-50-2	0.8	ug/mL
11CL-PF3OUDS	22F0058	763051-92-9	0.378	ug/mL
9CL-PF3ONS	22F0058	756426-58-1	0.374	ug/mL
ADONA	22F0058	919005-14-4	0.378	ug/mL
HFPO-DA	22F0058	13252-13-6	0.4	ug/mL
4:2FTS	22F0059	757124-72-4	0.75	ug/mL
6:2FTS	22F0059	27619-97-2	0.76	ug/mL
8:2FTS	22F0059	39108-34-4	0.768	ug/mL
NEtFOSAA	22F0059	2991-50-6	0.2	ug/mL
NMeFOSAA	22F0059	2355-31-9	0.2	ug/mL
PFBA	22F0059	375-22-4	0.8	ug/mL
PFBS	22F0059	375-73-5	0.177	ug/mL
PFDA	22F0059	335-76-2	0.2	ug/mL
PFDOA	22F0059	307-55-1	0.2	ug/mL
PFDOS	22F0059	79780-39-5	0.194	ug/mL
PFDS	22F0059	335-77-3	0.193	ug/mL
PFHPA	22F0059	375-85-9	0.2	ug/mL
PFHPS	22F0059	375-92-8	0.191	ug/mL
PFHXA	22F0059	307-24-4	0.2	ug/mL
PFHXS	22F0059	355-46-4	0.183	ug/mL
PFNA	22F0059	375-95-1	0.2	ug/mL
PFNS	22F0059	68259-12-1	0.192	ug/mL
PFOA	22F0059	335-67-1	0.2	ug/mL
PFOS	22F0059	1763-23-1	0.186	ug/mL
PFOSA	22F0059	754-91-6	0.2	ug/mL
PFPEA	22F0059	2706-90-3	0.4	ug/mL
PFPEs	22F0059	630402-22-1	0.188	ug/mL
PFTEDA	22F0059	376-06-7	0.2	ug/mL
PFTRDA	22F0059	72629-94-8	0.2	ug/mL
PFUnA	22F0059	2058-94-8	0.2	ug/mL
NFDHA	22F0061	151772-58-6	0.4	ug/mL
PFEESA	22F0061	113507-82-7	0.356	ug/mL
PFMBA	22F0061	863090-89-5	0.4	ug/mL
PFMPA	22F0061	377-73-1	0.4	ug/mL

Analytical Standard Record

22I0153

Parent Standards used:

Standard	Description	Prepared	Prepared By	Lot Nbr	Expires	Last Edit		(mls)
22C0307	PFAS - SAS N-MeFOSE 50ug/mL	03/15/2022	Wellington Laboratories	NMeFOSE0921M	09/23/2026	03/15/2022 15:59	by DAG	0.096
22C0308	PFAS - SAS FPrPA 50ug/mL	03/15/2022	Wellington Laboratories	FPrPA0122	02/03/2027	03/15/2022 15:59	by DAG	0.096
22C0309	PFAS - SAS FPePA 50ug/mL	03/15/2022	Wellington Laboratories	FPePA1221	01/05/2027	03/15/2022 15:59	by DAG	0.096
22C0310	PFAS - SAS NEtFOSE 50ug/mL	03/15/2022	Wellington Laboratories	NEtFOSE0921M	09/23/2026	03/15/2022 15:59	by DAG	0.096
22C0311	PFAS - SAS FHpPA 50ug/mL	03/15/2022	Wellington Laboratories	HHpPA1020	11/12/2025	03/15/2022 16:00	by DAG	0.096
22C0312	PFAS - SAS NMeFOSA 50ug/mL	03/15/2022	Wellington Laboratories	NMeFOSA0721M	08/03/2026	03/15/2022 16:00	by DAG	0.096
22C0313	PFAS - SAS NEtFOSA 50ug/mL	03/15/2022	Wellington Laboratories	NEtFOSA0821M	08/12/2026	08/17/2022 10:49	by LYA	0.096
22F0058	PFAS - MIX MXF 2ug/mL	01/10/2022	Wellington Laboratories	PFACMXF0122	01/11/2025	09/15/2022 09:32	by DAG	1.2
22F0059	PFAS - MIX MXH 2ug/mL	09/09/2021	Wellington Laboratories	PFACMXH0921	09/14/2026	09/15/2022 09:33	by DAG	1.2
22F0061	PFAS - MIX MXG 2ug/mL	02/07/2022	Wellington Laboratories	PFACMXG0222	02/22/2027	09/15/2022 09:34	by DAG	1.2



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PFAC-MXG

Native Perfluoroalkyl Ether Carboxylic Acids and Sulfonate Solution/Mixture

<u>PRODUCT CODE:</u>	PFAC-MXG
<u>LOT NUMBER:</u>	PFACMXG0222
<u>SOLVENT(S):</u>	Methanol/Water (<1%)
<u>DATE PREPARED:</u> (mm/dd/yyyy)	02/07/2022
<u>LAST TESTED:</u> (mm/dd/yyyy)	02/22/2022
<u>EXPIRY DATE:</u> (mm/dd/yyyy)	02/22/2027
<u>RECOMMENDED STORAGE:</u>	Store ampoule in a cool, dark place

DESCRIPTION:

PFAC-MXG is a solution/mixture of three native perfluoroalkyl ether carboxylic acids and a native perfluoroalkyl ether sulfonate. The components and their concentrations are given in Table A.

The individual components all have chemical purities of >98%.

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acids to their respective methyl esters.

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Table A: PFAC-MXG; Components and Concentrations (ng/mL; \pm 5% in methanol/water (<1%))

Compound	Acronym	Concentration (ng/mL)		Peak Assignment in Figure 1
Perfluoro-4-oxapentanoic acid	PF4OPeA	2000		A
Perfluoro-5-oxahexanoic acid	PF5OHxA	2000		B
Perfluoro-3,6-dioxahexanoic acid	3,6-OPFHxA	2000		D
Compound	Acronym	Concentration* (ng/mL)		Peak Assignment in Figure 1
		as the salt	as the acid	
Potassium perfluoro(2-ethoxyethane)sulfonate	PFEESA	2000	1780	C

* Concentrations have been rounded to three significant figures.

Certified By: 

B.G. Chittim, General Manager

Date: 03/03/2022
(mm/dd/yyyy)

Analytical Standard Record

22I0342

Description:	PFAS - MIX MXG 2ug/mL	Expires:	02/22/2027
Standard Type:	Other	Prepared:	02/07/2022
Solvent:	MeOH	Prepared By:	Dipti Gokal
Final Volume (mLs):	1	Department:	PFAS
Vials:	1	Last Edit:	09/26/2022 09:55 by DAG
Comments:	contains NFHDA PFMBA PFMPA PFEESA @ 2ug/mL		

Analyte	Parent	CAS Number	Concentration	Units
NFDHA		151772-58-6	2	ug/mL
PFEESA		113507-82-7	1.78	ug/mL
PFMBA		863090-89-5	2	ug/mL
PFMPA		377-73-1	2	ug/mL

Analytical Standard Record

22I0343

Description: PFAS - MIX MXF 2ug/mL
Standard Type: Other
Solvent: MeOH
Final Volume (mLs): 1.2
Vials: 1

Expires: 01/11/2025
Prepared: 09/26/2022
Prepared By: Dipti Gokal
Department: PFAS
Last Edit: 09/26/2022 09:47 by DAG

Analyte	Parent	CAS Number	Concentration	Units
11CL-PF3OUDS		763051-92-9	1.89	ug/mL
9CL-PF3ONS		756426-58-1	1.87	ug/mL
ADONA		919005-14-4	1.89	ug/mL
HFPO-DA		13252-13-6	2	ug/mL



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CERTIFICATE OF ANALYSIS DOCUMENTATION

PFAC-MXF

Native Replacement PFAS Solution/Mixture

<u>PRODUCT CODE:</u>	PFAC-MXF
<u>LOT NUMBER:</u>	PFACMXF0122
<u>SOLVENT(S):</u>	Methanol / Water (<1%)
<u>DATE PREPARED:</u> (mm/dd/yyyy)	01/10/2022
<u>LAST TESTED:</u> (mm/dd/yyyy)	01/11/2022
<u>EXPIRY DATE:</u> (mm/dd/yyyy)	01/11/2025
<u>RECOMMENDED STORAGE:</u>	Refrigerate ampoule

DESCRIPTION:

PFAC-MXF is a solution/mixture of sodium dodecafluoro-3H-4,8-dioxanonoate (NaDONA), the major and minor components of F-53B (9Cl-PF3ONS and 11Cl-PF3OUdS), and GenX (HFPO-DA). The components and their concentrations are given in Table A.

The individual native components of this mixture all have chemical purities of >98%.

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

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Table A: PFAC-MXF; Components and Concentrations (ng/mL; \pm 5% in Methanol/Water (<1%))

Compound	Acronym	Concentration* (ng/ml)		Peak Assignment in Figure 1
2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-propanoic acid	HFPO-DA	2000		A
Compound	Acronym	Concentration* (ng/mL)		Peak Assignment in Figure 1
		as the salt	as the acid	
Sodium dodecafluoro-3H-4,8-dioxanonoate	NaDONA	2000	1890	B
Potassium 9-chlorohexadecafluoro-3-oxanonane-1-sulfonate	9Cl-PF3ONS	2000	1870	C
Potassium 11-chloroeicosafluoro-3-oxaundecane-1-sulfonate	11Cl-PF3OUdS	2000	1890	D

* Concentrations have been rounded to three significant figures.

Certified By: 

B.G. Chittim, General Manager

Date: 01/12/2022
(mm/dd/yyyy)

Analytical Standard Record

22I0343

Description: PFAS - MIX MXF 2ug/mL
Standard Type: Other
Solvent: MeOH
Final Volume (mLs): 1.2
Vials: 1

Expires: 01/11/2025
Prepared: 01/10/2022
Prepared By: Dipti Gokal
Department: PFAS
Last Edit: 09/26/2022 09:54 by DAG

Analyte	Parent	CAS Number	Concentration	Units
11CL-PF3OUDS		763051-92-9	1.89	ug/mL
9CL-PF3ONS		756426-58-1	1.87	ug/mL
ADONA		919005-14-4	1.89	ug/mL
HFPO-DA		13252-13-6	2	ug/mL



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

APPL ID:2210334

PFAC-MXH

Native PFAS
Solution/Mixture

PRODUCT CODE: PFAC-MXH
LOT NUMBER: PFACMXH0822
SOLVENT(S): Methanol/Isopropanol (2%)/Water (<1%)
DATE PREPARED: (mm/dd/yyyy) 08/05/2022
LAST TESTED: (mm/dd/yyyy) 08/08/2022
EXPIRY DATE: (mm/dd/yyyy) 08/08/2027
RECOMMENDED STORAGE: Refrigerate ampoule

DESCRIPTION:

PFAC-MXH is a solution/mixture of 11 native linear perfluoroalkylcarboxylic acids (C_4 - C_{14}), eight native perfluoroalkanesulfonates (C_4 , C_5 , C_7 , C_9 , C_{10} and C_{12} linear; C_6 and C_8 linear and branched), three native fluorotelomer sulfonates (4:2, 6:2, and 8:2), two native linear and branched perfluorooctanesulfonamidoacetic acids, and perfluoro-1-octanesulfonamide (FOSA). The components and their concentrations are given in Table A.

The individual components of this mixture all have chemical purities of >98%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
 Table B: Isomeric Components and Percent Composition of N-MeFOSAA
 Table C: Isomeric Components and Percent Composition of N-EtFOSAA
 Table D: Isomeric Components and Percent Composition of PFHxSK
 Table E: Isomeric Components and Percent Composition of PFOSK
 Figure 1: LC/MS Data (SIR)
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acids to their respective methyl esters.

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Table A: PFAC-MXH; Components and Concentrations
(ng/mL, \pm 5% in methanol/isopropanol (2%)/water (<1%))

Compound	Acronym	Concentration* (ng/mL)		Peak Assignment in Figure 1
Perfluoro-n-butanoic acid	PFBA	4000		1
Perfluoro-n-pentanoic acid	PFPeA	2000		2
Perfluoro-n-hexanoic acid	PFHxA	1000		5
Perfluoro-n-heptanoic acid	PFHpA	1000		7
Perfluoro-n-octanoic acid	PFOA	1000		11
Perfluoro-n-nonanoic acid	PFNA	1000		14
Perfluoro-n-decanoic acid	PFDA	1000		18
Perfluoro-n-undecanoic acid	PFUdA	1000		24
Perfluoro-n-dodecanoic acid	PFDoA	1000		26
Perfluoro-n-tridecanoic acid	PFTrDA	1000		27
Perfluoro-n-tetradecanoic acid	PFTeDA	1000		29
Perfluoro-1-octanesulfonamide	FOSA	1000		23
N-methylperfluorooctanesulfonamidoacetic acid ^a	N-MeFOSAA: linear isomer	760		20
	N-MeFOSAA: Σ branched isomers	240		17
N-ethylperfluorooctanesulfonamidoacetic acid ^b	N-EtFOSAA: linear isomer	775		22
	N-EtFOSAA: Σ branched isomers	225		21
Compound	Acronym	Concentration* (ng/mL)		Peak Assignment in Figure 1
		as the salt	as the acid	
Potassium perfluoro-1-butanedisulfonate	L-PFBS	1000	887	3
Sodium perfluoro-1-pentadisulfonate	L-PFPeS	1000	941	6
Potassium perfluorohexanesulfonate ^c	PFHxSK: linear isomer	811	741	9
	PFHxSK: Σ branched isomers	189	173	8
Sodium perfluoro-1-heptadisulfonate	L-PFHpS	1000	953	12
Potassium perfluorooctanesulfonate ^d	PFOSK: linear isomer	788	732	15
	PFOSK: Σ branched isomers	211	196	13
Sodium perfluoro-1-nonadisulfonate	L-PFNS	1000	962	19
Sodium perfluoro-1-decanedisulfonate	L-PFDS	1000	965	25
Sodium perfluoro-1-dodecanedisulfonate	L-PFDoS	1000	970	28
Sodium 1H,1H,2H,2H-perfluorohexanesulfonate	4:2FTS	4000	3750	4
Sodium 1H,1H,2H,2H-perfluorooctanesulfonate	6:2FTS	4000	3800	10
Sodium 1H,1H,2H,2H-perfluorodecanesulfonate	8:2FTS	4000	3840	16

^a See Table B for percent composition of linear and branched N-MeFOSAA isomers.

^b See Table C for percent composition of linear and branched N-EtFOSAA isomers.

^c See Table D for percent composition of linear and branched PFHxSK isomers.

^d See Table E for percent composition of linear and branched PFOSK isomers.

* Concentrations have been rounded to three significant figures.

Certified By: 

B.G. Chittim, General Manager

Date: 08/09/2022
(mm/dd/yyyy)

Analytical Standard Record

22I0344

Description: PFAS - MIX MXH 1-4ug/mL
 Standard Type: Other
 Solvent: MeOH
 Final Volume (mLs): 1.2
 Vials: 1

Expires: 08/08/2027
 Prepared: 08/05/2022
 Prepared By: Dipti Gokal
 Department: PFAS
 Last Edit: 09/26/2022 09:59 by DAG

Analyte	Parent	CAS Number	Concentration	Units
4:2FTS		757124-72-4	3.75	ug/mL
6:2FTS		27619-97-2	3.8	ug/mL
8:2FTS		39108-34-4	3.84	ug/mL
NEtFOSAA		2991-50-6	1	ug/mL
NMeFOSAA		2355-31-9	1	ug/mL
PFBA		375-22-4	4	ug/mL
PFBS		375-73-5	0.887	ug/mL
PFDA		335-76-2	1	ug/mL
PFDOA		307-55-1	1	ug/mL
PFDOS		79780-39-5	0.97	ug/mL
PFDS		335-77-3	0.965	ug/mL
PFHPA		375-85-9	1	ug/mL
PFHPS		375-92-8	0.953	ug/mL
PFHXA		307-24-4	1	ug/mL
PFHXS		355-46-4	0.914	ug/mL
PFNA		375-95-1	1	ug/mL
PFNS		68259-12-1	0.962	ug/mL
PFOA		335-67-1	1	ug/mL
PFOS		1763-23-1	0.928	ug/mL
PFOSA		754-91-6	1	ug/mL
PFPEA		2706-90-3	2	ug/mL
PFPEs		630402-22-1	0.941	ug/mL
PFTEDA		376-06-7	1	ug/mL
PFTRDA		72629-94-8	1	ug/mL
PFUnA		2058-94-8	1	ug/mL

Analytical Standard Record

22J0448

Description: PFAS - MIX 1633 20ng/mL
 Standard Type: Analyte Spike
 Solvent: MeOH
 Final Volume (mLs): 10
 Vials: 1

Expires: 04/25/2023
 Prepared: 10/27/2022
 Prepared By: Dipti Gokal
 Department: PFAS
 Last Edit: 10/27/2022 08:51 by DAG

Analyte	Parent	CAS Number	Concentration	Units
11CL-PF3OUDS	22I0153	763051-92-9	0.0378	ug/mL
3:3FTCA	22I0153	113507-82-7	0.08	ug/mL
4:2FTS	22I0153	757124-72-4	0.075	ug/mL
5:3FTCA	22I0153	914637-49-3	0.08	ug/mL
6:2FTS	22I0153	27619-97-2	0.076	ug/mL
7:3FTCA	22I0153	812-70-4	0.08	ug/mL
8:2FTS	22I0153	39108-34-4	0.0768	ug/mL
9CL-PF3ONS	22I0153	756426-58-1	0.0374	ug/mL
ADONA	22I0153	919005-14-4	0.0378	ug/mL
HFPO-DA	22I0153	13252-13-6	0.04	ug/mL
NETFOSA	22I0153	4151-50-2	0.08	ug/mL
NETFOSAA	22I0153	2991-50-6	0.02	ug/mL
NETFOSE	22I0153	1691-99-2	0.08	ug/mL
NFDHA	22I0153	151772-58-6	0.04	ug/mL
NMeFOSA	22I0153	31506-32-8	0.08	ug/mL
NMeFOSAA	22I0153	2355-31-9	0.02	ug/mL
NMeFOSE	22I0153	24448-09-7	0.08	ug/mL
PFBA	22I0153	375-22-4	0.08	ug/mL
PFBS	22I0153	375-73-5	0.0177	ug/mL
PFDA	22I0153	335-76-2	0.02	ug/mL
PFDOA	22I0153	307-55-1	0.02	ug/mL
PFDOS	22I0153	79780-39-5	0.0194	ug/mL
PFDS	22I0153	335-77-3	0.0193	ug/mL
PFEESA	22I0153	113507-82-7	0.0356	ug/mL
PFHPA	22I0153	375-85-9	0.02	ug/mL
PFHPS	22I0153	375-92-8	0.0191	ug/mL
PFHXA	22I0153	307-24-4	0.02	ug/mL
PFHXS	22I0153	355-46-4	0.0183	ug/mL
PFMBA	22I0153	863090-89-5	0.04	ug/mL
PFMPA	22I0153	377-73-1	0.04	ug/mL
PFNA	22I0153	375-95-1	0.02	ug/mL
PFNS	22I0153	68259-12-1	0.0192	ug/mL
PFOA	22I0153	335-67-1	0.02	ug/mL
PFOS	22I0153	1763-23-1	0.0186	ug/mL
PFOSA	22I0153	754-91-6	0.02	ug/mL
PFPEA	22I0153	2706-90-3	0.04	ug/mL
PFPEs	22I0153	630402-22-1	0.0188	ug/mL
PFTEDA	22I0153	376-06-7	0.02	ug/mL
PFTRDA	22I0153	72629-94-8	0.02	ug/mL
PFUnA	22I0153	2058-94-8	0.02	ug/mL

Analytical Standard Record

22J0448**Parent Standards used:**

Standard	Description	Prepared	Prepared By	Lot Nbr	Expires	Last Edit	(mls)
22I0153	PFAS - MIX 1633 200ng/mL	09/13/2022	In house	x	01/11/2025	09/15/2022 09:34 by DAG	1

Analytical Standard Record

22J0552

Description: PFAS - MIX 1633 200ng/mL
 Standard Type: Analyte Spike
 Solvent: MeOH 62244
 Final Volume (mLs): 6
 Vials: 1

Expires: 01/11/2025
 Prepared: 10/31/2022
 Prepared By: Dipti Gokal
 Department: PFAS
 Last Edit: 10/31/2022 14:57 by DAG

Analyte	Parent	CAS Number	Concentration	Units
NETFOSA	21J0007	4151-50-2	0.8	ug/mL
NMeFOSE	21J0014	24448-09-7	0.8	ug/mL
3:3FTCA	21L0004	113507-82-7	0.8	ug/mL
5:3FTCA	21L0005	914637-49-3	0.8	ug/mL
NETFOSE	21L0006	1691-99-2	0.8	ug/mL
7:3FTCA	21L0007	812-70-4	0.8	ug/mL
NMeFOSA	21L0008	31506-32-8	0.8	ug/mL
NFDHA	22I0342	151772-58-6	0.4	ug/mL
PFEESA	22I0342	113507-82-7	0.356	ug/mL
PFMBA	22I0342	863090-89-5	0.4	ug/mL
PFMPA	22I0342	377-73-1	0.4	ug/mL
11CL-PF3OUDS	22I0343	763051-92-9	0.378	ug/mL
9CL-PF3ONS	22I0343	756426-58-1	0.374	ug/mL
ADONA	22I0343	919005-14-4	0.378	ug/mL
HFPO-DA	22I0343	13252-13-6	0.4	ug/mL
4:2FTS	22I0344	757124-72-4	0.75	ug/mL
6:2FTS	22I0344	27619-97-2	0.76	ug/mL
8:2FTS	22I0344	39108-34-4	0.768	ug/mL
NETFOSAA	22I0344	2991-50-6	0.2	ug/mL
NMeFOSAA	22I0344	2355-31-9	0.2	ug/mL
PFBA	22I0344	375-22-4	0.8	ug/mL
PFBS	22I0344	375-73-5	0.177	ug/mL
PFDA	22I0344	335-76-2	0.2	ug/mL
PFDOA	22I0344	307-55-1	0.2	ug/mL
PFDOS	22I0344	79780-39-5	0.194	ug/mL
PFDS	22I0344	335-77-3	0.193	ug/mL
PFHPA	22I0344	375-85-9	0.2	ug/mL
PFHPS	22I0344	375-92-8	0.191	ug/mL
PFHXA	22I0344	307-24-4	0.2	ug/mL
PFHXS	22I0344	355-46-4	0.183	ug/mL
PFNA	22I0344	375-95-1	0.2	ug/mL
PFNS	22I0344	68259-12-1	0.192	ug/mL
PFOA	22I0344	335-67-1	0.2	ug/mL
PFOS	22I0344	1763-23-1	0.186	ug/mL
PFOSA	22I0344	754-91-6	0.2	ug/mL
PFPEA	22I0344	2706-90-3	0.4	ug/mL
PFPEs	22I0344	630402-22-1	0.188	ug/mL
PFTEDA	22I0344	376-06-7	0.2	ug/mL
PFTRDA	22I0344	72629-94-8	0.2	ug/mL
PFUnA	22I0344	2058-94-8	0.2	ug/mL

Analytical Standard Record

22J0552

Parent Standards used:

Standard	Description	Prepared	Prepared By	Lot Nbr	Expires	Last Edit		(mls)
21J0007	PFAS - SAS N-EtFOSA 50ug/mL	08/12/2021	Wellington Laboratories	NEtFOSA0821M	08/12/2026	10/31/2022 14:36	by DAG	0.096
21J0014	PFAS - SAS N-MeFOSE 50ug/mL	09/22/2021	Wellington Laboratories	NMeFOSE0921M	09/23/2026	10/31/2022 14:35	by DAG	0.096
21L0004	PFAS - SAS 3:3FTA 50ug/mL	12/07/2021	Wellington Laboratories	FPrPA1020	11/12/2025	10/31/2022 14:39	by DAG	0.096
21L0005	PFAS - SAS 5:3FTA 50ug/mL	12/07/2021	Wellington Laboratories	FPePA1120	11/11/2025	10/31/2022 14:41	by DAG	0.096
21L0006	PFAS - SAS EtFOSE 50ug/mL	12/07/2021	Wellington Laboratories	FPePA1120	09/23/2026	10/31/2022 14:41	by DAG	0.096
21L0007	PFAS - SAS 7:3FTA 50ug/mL	12/07/2021	Wellington Laboratories	FHpPA1020	11/12/2025	10/31/2022 14:42	by DAG	0.096
21L0008	PFAS - SAS N-MeFOSA 50ug/mL	12/07/2021	Wellington Laboratories	NMeFOSA0721M	08/03/2026	10/31/2022 14:42	by DAG	0.096
22I0342	PFAS - MIX MXG 2ug/mL	02/07/2022	Wellington Laboratories	PFACMXG0222	02/22/2027	10/31/2022 14:48	by DAG	1.2
22I0343	PFAS - MIX MXF 2ug/mL	01/10/2022	Wellington Laboratories	PFACMXF0122	01/11/2025	10/31/2022 14:55	by DAG	1.2
22I0344	PFAS - MIX MXH 1-4ug/mL	08/05/2022	Wellington Laboratories	PFACMXH0822	08/08/2027	10/31/2022 14:56	by DAG	1.2



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

MPFAC-HIF-ES

Mass-Labelled PFAS Extraction
Standard Solution/Mixture

PRODUCT CODE: MPFAC-HIF-ES
LOT NUMBER: MPFACHIFES0822
SOLVENT(S): Methanol/Isopropanol (1%)/Water (<1%)
DATE PREPARED: (mm/dd/yyyy) 07/20/2022
LAST TESTED: (mm/dd/yyyy) 08/02/2022
EXPIRY DATE: (mm/dd/yyyy) 08/02/2025
RECOMMENDED STORAGE: Refrigerate ampoule

DESCRIPTION:

MPFAC-HIF-ES is a solution/mixture of ten mass-labelled (^{13}C) perfluoroalkylcarboxylic acids (C_4 - C_{12} , C_{14}), three mass-labelled (^{13}C) perfluoroalkanesulfonates (C_4 , C_6 , and C_8), three mass-labelled (one ^{13}C and two ^2H) perfluoro-1-octanesulfonamides, three mass-labelled (^{13}C) fluorotelomer sulfonates (4:2, 6:2, and 8:2), two mass-labelled (^2H) perfluorooctanesulfonamidoacetic acids, two mass-labelled (^2H) perfluorooctanesulfonamidoethanols, and mass-labelled (^{13}C) hexafluoropropylene oxide dimer acid (GenX, M3HFPO-DA). The components and their concentrations are given in Table A.

The individual ^{13}C -labelled components all have chemical purities >98% and isotopic purities of $\geq 99\%$. The individual ^2H -labelled components all have chemical purities >98% and isotopic purities of $\geq 98\%$.

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acids to their respective methyl esters.

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Table A: MPFAC-HIF-ES; Components and Concentrations
(ng/mL, $\pm 5\%$ in methanol/isopropanol (1%)/water (<1%))

Compound	Acronym	Concentration (ng/mL)	Peak Assignment in Figure 1	
Perfluoro-n-(¹³ C ₄)butanoic acid	MPFBA	2000	1	
Perfluoro-n-(¹³ C ₅)pentanoic acid	M5PFPeA	1000	2	
Perfluoro-n-(1,2,3,4,6- ¹³ C ₅)hexanoic acid	M5PFHxA	500	5	
Perfluoro-n-(1,2,3,4- ¹³ C ₄)heptanoic acid	M4PFHpA	500	7	
Perfluoro-n-(¹³ C ₈)octanoic acid	M8PFOA	500	10	
Perfluoro-n-(¹³ C ₉)nonanoic acid	M9PFNA	250	11	
Perfluoro-n-(1,2,3,4,5,6- ¹³ C ₆)decanoic acid	M6PFDA	250	14	
Perfluoro-n-(1,2,3,4,5,6,7- ¹³ C ₇)undecanoic acid	M7PFUdA	250	17	
Perfluoro-n-(1,2- ¹³ C ₂)dodecanoic acid	MPFD _o A	250	19	
Perfluoro-n-(1,2- ¹³ C ₂)tetradecanoic acid	M2PFTeDA	250	23	
Perfluoro-1-(¹³ C ₈)octanesulfonamide	M8FOSA	500	18	
N-methyl-d ₃ -perfluoro-1-octanesulfonamide	d-N-MeFOSA	500	21	
N-ethyl-d ₅ -perfluoro-1-octanesulfonamide	d-N-EtFOSA	500	24	
N-methyl-d ₃ -perfluoro-1-octanesulfonamidoacetic acid	d3-N-MeFOSAA	1000	15	
N-ethyl-d ₅ -perfluoro-1-octanesulfonamidoacetic acid	d5-N-EtFOSAA	1000	16	
2-(N-methyl-d ₃ -perfluoro-1-octanesulfonamido)ethan-d ₄ -ol	d7-N-MeFOSE	5000	20	
2-(N-ethyl-d ₅ -perfluoro-1-octanesulfonamido)ethan-d ₄ -ol	d9-N-EtFOSE	5000	22	
2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)(¹³ C ₃)propanoic acid	M3HFPO-DA	2000	6	
Compound	Acronym	Concentration* (ng/mL)		Peak Assignment in Figure 1
		as the salt	as the acid	
Sodium perfluoro-1-(2,3,4- ¹³ C ₃)butanesulfonate	M3PFBS	500	466	3
Sodium perfluoro-1-(1,2,3- ¹³ C ₃)hexanesulfonate	M3PFHxS	500	474	8
Sodium perfluoro-1-(¹³ C ₈)octanesulfonate	M8PFOS	500	479	12
Sodium 1H,1H,2H,2H-perfluoro-(1,2- ¹³ C ₂)hexanesulfonate	M2-4:2FTS	1000	938	4
Sodium 1H,1H,2H,2H-perfluoro-(1,2- ¹³ C ₂)octanesulfonate	M2-6:2FTS	1000	951	9
Sodium 1H,1H,2H,2H-perfluoro-(1,2- ¹³ C ₂)decanesulfonate	M2-8:2FTS	1000	960	13

* Concentrations have been rounded to three significant figures.

Certified By:


B.G. Chittim, General Manager

Date: 08/02/2022
(mm/dd/yyyy)



WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

MPFAC-HIF-ES

Mass-Labelled PFAS Extraction
Standard Solution/Mixture

PRODUCT CODE: MPFAC-HIF-ES
LOT NUMBER: MPFACHIFES0822
SOLVENT(S): Methanol/Isopropanol (1%)/Water (<1%)
DATE PREPARED: (mm/dd/yyyy) 07/20/2022
LAST TESTED: (mm/dd/yyyy) 08/02/2022
EXPIRY DATE: (mm/dd/yyyy) 08/02/2025
RECOMMENDED STORAGE: Refrigerate ampoule

DESCRIPTION:

MPFAC-HIF-ES is a solution/mixture of ten mass-labelled (^{13}C) perfluoroalkylcarboxylic acids (C_4 - C_{12} , C_{14}), three mass-labelled (^{13}C) perfluoroalkanesulfonates (C_4 , C_6 , and C_8), three mass-labelled (one ^{13}C and two ^2H) perfluoro-1-octanesulfonamides, three mass-labelled (^{13}C) fluorotelomer sulfonates (4:2, 6:2, and 8:2), two mass-labelled (^2H) perfluorooctanesulfonamidoacetic acids, two mass-labelled (^2H) perfluorooctanesulfonamidoethanols, and mass-labelled (^{13}C) hexafluoropropylene oxide dimer acid (GenX, M3HFPO-DA). The components and their concentrations are given in Table A.

The individual ^{13}C -labelled components all have chemical purities >98% and isotopic purities of $\geq 99\%$. The individual ^2H -labelled components all have chemical purities >98% and isotopic purities of $\geq 98\%$.

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acids to their respective methyl esters.

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Table A: MPFAC-HIF-ES; Components and Concentrations
(ng/mL, \pm 5% in methanol/isopropanol (1%)/water (<1%))

Compound	Acronym	Concentration (ng/mL)	Peak Assignment in Figure 1	
Perfluoro-n-(¹³ C ₄)butanoic acid	MPFBA	2000	1	
Perfluoro-n-(¹³ C ₅)pentanoic acid	M5PFPeA	1000	2	
Perfluoro-n-(1,2,3,4,6- ¹³ C ₅)hexanoic acid	M5PFHxA	500	5	
Perfluoro-n-(1,2,3,4- ¹³ C ₄)heptanoic acid	M4PFHpA	500	7	
Perfluoro-n-(¹³ C ₈)octanoic acid	M8PFOA	500	10	
Perfluoro-n-(¹³ C ₉)nonanoic acid	M9PFNA	250	11	
Perfluoro-n-(1,2,3,4,5,6- ¹³ C ₆)decanoic acid	M6PFDA	250	14	
Perfluoro-n-(1,2,3,4,5,6,7- ¹³ C ₇)undecanoic acid	M7PFUdA	250	17	
Perfluoro-n-(1,2- ¹³ C ₂)dodecanoic acid	MPFD _o A	250	19	
Perfluoro-n-(1,2- ¹³ C ₂)tetradecanoic acid	M2PFTeDA	250	23	
Perfluoro-1-(¹³ C ₈)octanesulfonamide	M8FOSA	500	18	
N-methyl-d ₃ -perfluoro-1-octanesulfonamide	d-N-MeFOSA	500	21	
N-ethyl-d ₅ -perfluoro-1-octanesulfonamide	d-N-EtFOSA	500	24	
N-methyl-d ₃ -perfluoro-1-octanesulfonamidoacetic acid	d3-N-MeFOSAA	1000	15	
N-ethyl-d ₅ -perfluoro-1-octanesulfonamidoacetic acid	d5-N-EtFOSAA	1000	16	
2-(N-methyl-d ₃ -perfluoro-1-octanesulfonamido)ethan-d ₄ -ol	d7-N-MeFOSE	5000	20	
2-(N-ethyl-d ₅ -perfluoro-1-octanesulfonamido)ethan-d ₄ -ol	d9-N-EtFOSE	5000	22	
2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)(¹³ C ₃)propanoic acid	M3HFPO-DA	2000	6	
Compound	Acronym	Concentration* (ng/mL)		Peak Assignment in Figure 1
		as the salt	as the acid	
Sodium perfluoro-1-(2,3,4- ¹³ C ₃)butanesulfonate	M3PFBS	500	466	3
Sodium perfluoro-1-(1,2,3- ¹³ C ₃)hexanesulfonate	M3PFHxS	500	474	8
Sodium perfluoro-1-(¹³ C ₈)octanesulfonate	M8PFOS	500	479	12
Sodium 1H,1H,2H,2H-perfluoro-(1,2- ¹³ C ₂)hexanesulfonate	M2-4:2FTS	1000	938	4
Sodium 1H,1H,2H,2H-perfluoro-(1,2- ¹³ C ₂)octanesulfonate	M2-6:2FTS	1000	951	9
Sodium 1H,1H,2H,2H-perfluoro-(1,2- ¹³ C ₂)decanesulfonate	M2-8:2FTS	1000	960	13

* Concentrations have been rounded to three significant figures.

Certified By:


B.G. Chittim, General Manager

Date: 08/02/2022
(mm/dd/yyyy)

Analytical Standard Record

22K0502

Description: PFAS IIS 7C 40ng/mL
 Standard Type: Internal Standard
 Solvent: MeOH/62286
 Final Volume (mLs): 25
 Vials: 1

Expires: 01/20/2023
 Prepared: 11/28/2022
 Prepared By: Dipti Gokal
 Department: PFAS
 Last Edit: 11/28/2022 15:10 by DAG

Analyte	Parent	CAS Number	Concentration	Units
13C2-PFDA	22A0234	13C2-PFDA	0.04	ug/mL
13C2-PFHxA	22A0234	13C2-PFHxA	0.04	ug/mL
13C3-PFBA	22A0234	13C3-PFBA	0.04	ug/mL
13C4-PFOA	22A0234	13C4-PFOA	0.04	ug/mL
13C4-PFOS	22A0234	13C4-PFOS	0.04	ug/mL
13C5-PFNA	22A0234	13C5-PFNA	0.04	ug/mL
18O2-PFHXS	22A0234	18O2-PFHXS	0.04	ug/mL

Parent Standards used:

Standard	Description	Prepared	Prepared By	Lot Nbr	Expires	Last Edit	(mLs)
22A0234	PFAS IIS 7C 5ug/mL	01/20/2022	In house	*	01/20/2023	01/20/2022 15:49 by HGH	0.2

Analytical Standard Record

22K0503

Description: 1633- IIS Static 1ng/mL
 Standard Type: Internal Standard
 Solvent: MeOH/62286
 Final Volume (mLs): 2
 Vials: 1

Expires: 01/20/2023
 Prepared: 11/28/2022
 Prepared By: Dipti Gokal
 Department: PFAS
 Last Edit: 11/28/2022 15:11 by DAG

Analyte	Parent	CAS Number	Concentration	Units
13C2-PFDA	22K0502	13C2-PFDA	0.001	ug/mL
13C2-PFHxA	22K0502	13C2-PFHxA	0.001	ug/mL
13C3-PFBA	22K0502	13C3-PFBA	0.001	ug/mL
13C4-PFOA	22K0502	13C4-PFOA	0.001	ug/mL
13C4-PFOS	22K0502	13C4-PFOS	0.001	ug/mL
13C5-PFNA	22K0502	13C5-PFNA	0.001	ug/mL
18O2-PFHXS	22K0502	18O2-PFHXS	0.001	ug/mL

Parent Standards used:

Standard	Description	Prepared	Prepared By	Lot Nbr	Expires	Last Edit	(mLs)
22K0502	PFAS IIS 7C 40ng/mL	11/28/2022	In house	*	01/20/2023	11/28/2022 15:10 by DAG	0.05

Analytical Standard Record

22L0269

Description: PFAS - MIX 1633 10ng/mL
 Standard Type: Analyte Spike
 Solvent: MeOH
 Final Volume (mLs): 10
 Vials: 1

Expires: 06/12/2023
 Prepared: 12/14/2022
 Prepared By: Dipti Gokal
 Department: PFAS
 Last Edit: 12/14/2022 12:00 by DAG

Analyte	Parent	CAS Number	Concentration	Units
11CL-PF3OUDS	22J0552	763051-92-9	0.0189	ug/mL
3:3FTCA	22J0552	113507-82-7	0.04	ug/mL
4:2FTS	22J0552	757124-72-4	0.0375	ug/mL
5:3FTCA	22J0552	914637-49-3	0.04	ug/mL
6:2FTS	22J0552	27619-97-2	0.038	ug/mL
7:3FTCA	22J0552	812-70-4	0.04	ug/mL
8:2FTS	22J0552	39108-34-4	0.0384	ug/mL
9CL-PF3ONS	22J0552	756426-58-1	0.0187	ug/mL
ADONA	22J0552	919005-14-4	0.0189	ug/mL
HFPO-DA	22J0552	13252-13-6	0.02	ug/mL
NETFOSA	22J0552	4151-50-2	0.04	ug/mL
NETFOSAA	22J0552	2991-50-6	0.01	ug/mL
NETFOSE	22J0552	1691-99-2	0.04	ug/mL
NFDHA	22J0552	151772-58-6	0.02	ug/mL
NMeFOSA	22J0552	31506-32-8	0.04	ug/mL
NMeFOSAA	22J0552	2355-31-9	0.01	ug/mL
NMeFOSE	22J0552	24448-09-7	0.04	ug/mL
PFBA	22J0552	375-22-4	0.04	ug/mL
PFBS	22J0552	375-73-5	0.00885	ug/mL
PFDA	22J0552	335-76-2	0.01	ug/mL
PFDOA	22J0552	307-55-1	0.01	ug/mL
PFDOS	22J0552	79780-39-5	0.0097	ug/mL
PFDS	22J0552	335-77-3	0.00965	ug/mL
PFEESA	22J0552	113507-82-7	0.0178	ug/mL
PFHPA	22J0552	375-85-9	0.01	ug/mL
PFHPS	22J0552	375-92-8	0.00955	ug/mL
PFHXA	22J0552	307-24-4	0.01	ug/mL
PFHXS	22J0552	355-46-4	0.00915	ug/mL
PFMBA	22J0552	863090-89-5	0.02	ug/mL
PFMPA	22J0552	377-73-1	0.02	ug/mL
PFNA	22J0552	375-95-1	0.01	ug/mL
PFNS	22J0552	68259-12-1	0.0096	ug/mL
PFOA	22J0552	335-67-1	0.01	ug/mL
PFOS	22J0552	1763-23-1	0.0093	ug/mL
PFOSA	22J0552	754-91-6	0.01	ug/mL
PFPEA	22J0552	2706-90-3	0.02	ug/mL
PFPEs	22J0552	630402-22-1	0.0094	ug/mL
PFTEDA	22J0552	376-06-7	0.01	ug/mL
PFTRDA	22J0552	72629-94-8	0.01	ug/mL
PFUnA	22J0552	2058-94-8	0.01	ug/mL

Analytical Standard Record

22L0269**Parent Standards used:**

Standard	Description	Prepared	Prepared By	Lot Nbr	Expires	Last Edit	(mls)
22J0552	PFAS - MIX 1633 200ng/mL	10/31/2022	In house	x	01/11/2025	10/31/2022 15:40 by DAG	0.5

Analytical Standard Record

22L0272

Description:	MPFAC-HIF-ES 20.0ng/mL	Expires:	06/12/2023
Standard Type:	Surrogate Spike	Prepared:	12/14/2022
Solvent:	MeOH/62244	Prepared By:	Andonios Karas
Final Volume (mls):	10	Department:	PFAS
Vials:	3	Last Edit:	12/14/2022 13:55 by ABK
Comments:	Half the concentration of previous EIS solution used for 1633/B-15. Double the spiking volume from 100 uL to 200 uL		

Analyte	Parent	CAS Number	Concentration	Units
13C2-4:2FTS	22K0095	13C2-4:2FTS	0.04	ug/mL
13C2-6:2FTS	22K0095	13C2-6:2FTS	0.04	ug/mL
13C2-8:2FTS	22K0095	13C2-8:2FTS	0.04	ug/mL
13C2-PFDOA	22K0095	13C2-PFDOA	0.01	ug/mL
13C2-PFTEDA	22K0095	13C2-PFTEDA	0.01	ug/mL
13C3-HFPO-DA	22K0095	13C3-HFPO-DA	0.08	ug/mL
13C3-PFBS	22K0095	13C3-PFBS	0.02	ug/mL
13C3-PFHXS	22K0095	13C3-PFHXS	0.02	ug/mL
13C4-PFBA	22K0095	13C4-PFBA	0.08	ug/mL
13C4-PFHFA	22K0095	13C4-PFHFA	0.02	ug/mL
13C5-PFHXA	22K0095	13C5-PFHXA	0.02	ug/mL
13C5-PFPEA	22K0095	13C5-PFPEA	0.04	ug/mL
13C6-PFDA	22K0095	13C6-PFDA	0.01	ug/mL
13C7-PFUHA	22K0095	13C7-PFUHA	0.01	ug/mL
13C8-PFOA	22K0095	13C8-PFOA	0.02	ug/mL
13C8-PFOS	22K0095	13C8-PFOS	0.02	ug/mL
13C8-PFOSA	22K0095	13C8-PFOSA	0.02	ug/mL
13C9-PFNA	22K0095	13C9-PFNA	0.01	ug/mL
D3-NMEFOSA	22K0095	D3-NMEFOSA	0.02	ug/mL
D3-NMEFOSAA	22K0095	D3-NMEFOSAA	0.04	ug/mL
D5-NETFOSA	22K0095	D5-NETFOSA	0.02	ug/mL
D5-NETFOSAA	22K0095	D5-NETFOSAA	0.04	ug/mL
D7-NMEFOSE	22K0095	D7-NMEFOSE	0.2	ug/mL
D9-NETFOSSE	22K0095	D9-NETFOSSE	0.2	ug/mL

Parent Standards used:

Standard	Description	Prepared	Prepared By	Lot Nbr	Expires	Last Edit	(mls)
22K0095	MPFAC-HIF-ES-EIS	07/20/2022	Wellington Laboratories	MPFACHIFES0822	08/02/2025	11/04/2022 12:16 by DAG	0.4

Analytical Standard Record

22L0357

Description:	MPFAC-HIF-ES 20.0ng/mL	Expires:	06/19/2023
Standard Type:	Surrogate Spike	Prepared:	12/21/2022
Solvent:	MeOH/62244	Prepared By:	Dipti Gokal
Final Volume (mLs):	10	Department:	PFAS
Vials:	1	Last Edit:	12/21/2022 10:47 by DAG
Comments:	Half the concentration of previous EIS solution used for 1633/B-15. Double the spiking volume from 100 uL to 200 uL		

Analyte	Parent	CAS Number	Concentration	Units
13C2-4:2FTS	22K0096	13C2-4:2FTS	0.04	ug/mL
13C2-6:2FTS	22K0096	13C2-6:2FTS	0.04	ug/mL
13C2-8:2FTS	22K0096	13C2-8:2FTS	0.04	ug/mL
13C2-PFDOA	22K0096	13C2-PFDOA	0.01	ug/mL
13C2-PFTEDA	22K0096	13C2-PFTEDA	0.01	ug/mL
13C3-HFPO-DA	22K0096	13C3-HFPO-DA	0.08	ug/mL
13C3-PFBS	22K0096	13C3-PFBS	0.02	ug/mL
13C3-PFHXS	22K0096	13C3-PFHXS	0.02	ug/mL
13C4-PFBA	22K0096	13C4-PFBA	0.08	ug/mL
13C4-PFHFA	22K0096	13C4-PFHFA	0.02	ug/mL
13C5-PFHXA	22K0096	13C5-PFHXA	0.02	ug/mL
13C5-PFPEA	22K0096	13C5-PFPEA	0.04	ug/mL
13C6-PFDA	22K0096	13C6-PFDA	0.01	ug/mL
13C7-PFUHA	22K0096	13C7-PFUHA	0.01	ug/mL
13C8-PFOA	22K0096	13C8-PFOA	0.02	ug/mL
13C8-PFOS	22K0096	13C8-PFOS	0.02	ug/mL
13C8-PFOSA	22K0096	13C8-PFOSA	0.02	ug/mL
13C9-PFNA	22K0096	13C9-PFNA	0.01	ug/mL
D3-NMEFOSA	22K0096	D3-NMEFOSA	0.02	ug/mL
D3-NMEFOSAA	22K0096	D3-NMEFOSAA	0.04	ug/mL
D5-NETFOSA	22K0096	D5-NETFOSA	0.02	ug/mL
D5-NETFOSAA	22K0096	D5-NETFOSAA	0.04	ug/mL
D7-NMEFOSE	22K0096	D7-NMEFOSE	0.2	ug/mL
D9-NETFOSSE	22K0096	D9-NETFOSSE	0.2	ug/mL

Parent Standards used:

Standard	Description	Prepared	Prepared By	Lot Nbr	Expires	Last Edit	(mLs)
22K0096	MPFAC-HIF-ES-EIS	07/20/2022	Wellington Laboratories	MPFACHIFES0822	08/02/2025	11/04/2022 12:16 by DAG	0.4

Analytical Standard Record

22L0432

Description: PFAS IIS 7C 40ng/mL
 Standard Type: Internal Standard
 Solvent: MeOH/62286
 Final Volume (mLs): 25
 Vials: 1

Expires: 01/20/2023
 Prepared: 12/29/2022
 Prepared By: Dipti Gokal
 Department: PFAS
 Last Edit: 12/29/2022 09:09 by DAG

Analyte	Parent	CAS Number	Concentration	Units
13C2-PFDA	22A0234	13C2-PFDA	0.04	ug/mL
13C2-PFHxA	22A0234	13C2-PFHxA	0.04	ug/mL
13C3-PFBA	22A0234	13C3-PFBA	0.04	ug/mL
13C4-PFOA	22A0234	13C4-PFOA	0.04	ug/mL
13C4-PFOS	22A0234	13C4-PFOS	0.04	ug/mL
13C5-PFNA	22A0234	13C5-PFNA	0.04	ug/mL
18O2-PFHXS	22A0234	18O2-PFHXS	0.04	ug/mL

Parent Standards used:

Standard	Description	Prepared	Prepared By	Lot Nbr	Expires	Last Edit	(mLs)
22A0234	PFAS IIS 7C 5ug/mL	01/20/2022	In house	*	01/20/2023	01/20/2022 15:49 by HGH	0.2

Analytical Standard Record

22L0442

Description: PFAS - MIX 1633 10ng/mL
 Standard Type: Analyte Spike
 Solvent: MeOH
 Final Volume (mLs): 10
 Vials: 1

Expires: 06/27/2023
 Prepared: 12/29/2022
 Prepared By: Dipti Gokal
 Department: PFAS
 Last Edit: 12/29/2022 09:41 by DAG

Analyte	Parent	CAS Number	Concentration	Units
11CL-PF3OUDS	22J0552	763051-92-9	0.0189	ug/mL
3:3FTCA	22J0552	113507-82-7	0.04	ug/mL
4:2FTS	22J0552	757124-72-4	0.0375	ug/mL
5:3FTCA	22J0552	914637-49-3	0.04	ug/mL
6:2FTS	22J0552	27619-97-2	0.038	ug/mL
7:3FTCA	22J0552	812-70-4	0.04	ug/mL
8:2FTS	22J0552	39108-34-4	0.0384	ug/mL
9CL-PF3ONS	22J0552	756426-58-1	0.0187	ug/mL
ADONA	22J0552	919005-14-4	0.0189	ug/mL
HFPO-DA	22J0552	13252-13-6	0.02	ug/mL
NETFOSA	22J0552	4151-50-2	0.04	ug/mL
NETFOSAA	22J0552	2991-50-6	0.01	ug/mL
NETFOSE	22J0552	1691-99-2	0.04	ug/mL
NFDHA	22J0552	151772-58-6	0.02	ug/mL
NMeFOSA	22J0552	31506-32-8	0.04	ug/mL
NMeFOSAA	22J0552	2355-31-9	0.01	ug/mL
NMeFOSE	22J0552	24448-09-7	0.04	ug/mL
PFBA	22J0552	375-22-4	0.04	ug/mL
PFBS	22J0552	375-73-5	0.00885	ug/mL
PFDA	22J0552	335-76-2	0.01	ug/mL
PFDOA	22J0552	307-55-1	0.01	ug/mL
PFDOS	22J0552	79780-39-5	0.0097	ug/mL
PFDS	22J0552	335-77-3	0.00965	ug/mL
PFEESA	22J0552	113507-82-7	0.0178	ug/mL
PFHPA	22J0552	375-85-9	0.01	ug/mL
PFHPS	22J0552	375-92-8	0.00955	ug/mL
PFHXA	22J0552	307-24-4	0.01	ug/mL
PFHXS	22J0552	355-46-4	0.00915	ug/mL
PFMBA	22J0552	863090-89-5	0.02	ug/mL
PFMPA	22J0552	377-73-1	0.02	ug/mL
PFNA	22J0552	375-95-1	0.01	ug/mL
PFNS	22J0552	68259-12-1	0.0096	ug/mL
PFOA	22J0552	335-67-1	0.01	ug/mL
PFOS	22J0552	1763-23-1	0.0093	ug/mL
PFOSA	22J0552	754-91-6	0.01	ug/mL
PFPEA	22J0552	2706-90-3	0.02	ug/mL
PFPEs	22J0552	630402-22-1	0.0094	ug/mL
PFTEDA	22J0552	376-06-7	0.01	ug/mL
PFTRDA	22J0552	72629-94-8	0.01	ug/mL
PFUnA	22J0552	2058-94-8	0.01	ug/mL

Analytical Standard Record

22L0442**Parent Standards used:**

Standard	Description	Prepared	Prepared By	Lot Nbr	Expires	Last Edit	(mls)
22J0552	PFAS - MIX 1633 200ng/mL	10/31/2022	In house	x	01/11/2025	10/31/2022 15:40 by DAG	0.5