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DoD-ELAP Certification Number 4064.01  
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December 22, 2022

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

RE: Red Hill AFFF Assessment Sampling  
22L0083

Enclosed are the results of analyses for samples received by our laboratory on 12/13/2022. 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

# Table of Contents

Cover Letter	1
Case Narrative	5
Sample Results	7
QC Results	13
Notes and Definitions	31
Login Summary	32
Chain of Custody	33
Other Documents or Sub Lab Data	36
Fraction (PFAS)	37
Sample Data (EPA 1633)	38
Sample Results (22L0083-01)	39
Sample Results (22L0083-01RE2)	48
Sample Results (22L0083-02)	56
Sample Results (22L0083-02RE1)	65
Sample Results (22L0083-02RE2)	73
Sample Results (22L0083-03)	81
Sample Results (22L0083-03RE1)	90
Sample Results (22L0083-03RE2)	98
Quality Control (EPA 1633)	106
Surrogate Summary (BBL0295)	107
Surrogate Summary (BBL0300)	112
Surrogate Summary (BBL0355)	116
Surrogate Summary (BBL0357)	119
Method Blank Summary (BBL0295)	122
Method Blank Summary (BBL0300)	123

## Table of Contents (continued)

Method Blank Summary (BBL0355)	124
Method Blank Summary (BBL0357)	125
Method Blank Results (BBL0295)	126
Method Blank Results (BBL0300)	128
Method Blank Results (BBL0355)	130
Method Blank Results (BBL0357)	132
Laboratory Control Recovery (BBL0295)	134
Laboratory Control Recovery (BBL0300)	136
Laboratory Control Recovery (BBL0355)	138
Laboratory Control Recovery (BBL0357)	140
Calibration Summary (EPA 1633)	142
Calibration (SB03823)	151
Calibration (SB03856)	208
Initial Calibration Verification (SB03823)	265
Initial Calibration Verification (SB03856)	275
CCV (SB03835)	303
CCV (SB03903)	339
Quality Control Raw Data (EPA 1633)	480
QC Results (BBL0295)	481
QC Results (BBL0300)	508
QC Results (BBL0355)	535
QC Results (BBL0357)	562
Preparation Bench Sheet (BBL0295)	589
Preparation Bench Sheet (BBL0300)	592
Preparation Bench Sheet (BBL0355)	595

## Table of Contents (continued)

Preparation Bench Sheet (BBL0357)	598
Injection Log (SB03823)	600
Injection Log (SB03835)	601
Injection Log (SB03856)	602
Injection Log (SB03903)	603
Standard Traceability	604

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Project: Red Hill AFFF Assessment Sampling  
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## Data Validatable Report

### Analysis Case Narrative

**PFAS:** 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 13C7-PFUnA recovered above the upper control limit in the 22L0295-BS1, the BBL0295MRL1, and the BBL0300-BS1.

The analytes PFOS and 6:2FTS recovered above the upper control limit in the BBL0295-MRL. Samples were re-extracted and were not reported from this batch.

The analytes PFOS and PFOSA recovered above the PQL in the BBL0300-BLK1. Samples were re-extracted for PFOS and were non detect for PFOSA.

The analyte PFOS recovered above the PQL in the BBL0295-BLK1. Samples were re-extracted and are not reported from this set for PFOS.

The analytes PFOS and PFOSA recovered above the upper control limit in the BBL0300-MRL1. The sample was re-extracted for PFOS and was non detect for PFOSA.

The analyte NFDHA recovered below the lower control limit in the BBL0357-MRL1. This analyte is not a target in this batch.

The analyte PFDoA recovered above the upper control limit in SB03903-LCV1. This analyte was non target for this sequence.

The analyte NFDHA recovered below the lower control limit in BBL0357-MRL1. This analyte was non target for this batch.

### Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
22L0083-01	AF-HDMW225303-WGN01B-2212W2	Water	12/12/2022 14:30	12/13/2022
22L0083-02	AF-RHMW03-WGN01LF-2212W2	Water	12/12/2022 15:45	12/13/2022
22L0083-03	AF-RHMW02-WGN01LF-2212W2	Water	12/12/2022 13:00	12/13/2022

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### Containers Received

Lab ID	Container Type	Count	Preservation Check
22L0083-01	500mL P	2	
22L0083-02	500mL P	2	
22L0083-03	500mL P	2	

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## Sample Results

**Sample: AF-HDMW225303-WGN01B-2212W2  
22L0083-01 (Water)**

### Per- and Polyfluoroalkyl Substances

Analyte	Result /Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
PFBA	8.2 U	16	8.2	2.1	ng/L	12/14/22	1	EPA 1633	BBL0300
PFPEA	4.1 U	8.2	4.1	0.66	ng/L	12/14/22	1	EPA 1633	BBL0300
PFHXA	2.0 U	4.1	2.0	0.56	ng/L	12/14/22	1	EPA 1633	BBL0300
PFHPA	2.0 U	4.1	2.0	0.42	ng/L	12/14/22	1	EPA 1633	BBL0300
PFOA	1.7 J	4.1	2.0	1.6	ng/L	12/14/22	1	EPA 1633	BBL0300
PFNA	2.0 U	4.1	2.0	0.83	ng/L	12/14/22	1	EPA 1633	BBL0300
PFDA	2.0 U	4.1	2.0	1.0	ng/L	12/14/22	1	EPA 1633	BBL0300
PFUnA	2.0 U	4.1	2.0	1.6	ng/L	12/14/22	1	EPA 1633	BBL0300
PFDOA	2.0 U	4.1	2.0	1.1	ng/L	12/14/22	1	EPA 1633	BBL0300
PFTRDA	3.1 U	4.1	3.1	2.1	ng/L	12/14/22	1	EPA 1633	BBL0300
PFTEDA	2.0 U	4.1	2.0	2.0	ng/L	12/14/22	1	EPA 1633	BBL0300
PFBS	2.0 U	4.1	2.0	0.37	ng/L	12/14/22	1	EPA 1633	BBL0300
PFPEs	2.0 U	4.1	2.0	0.64	ng/L	12/14/22	1	EPA 1633	BBL0300
PFHXS	0.65 J	4.1	2.0	0.32	ng/L	12/14/22	1	EPA 1633	BBL0300
PFHPS	2.0 U	4.1	2.0	0.52	ng/L	12/14/22	1	EPA 1633	BBL0300
PFOS	2.1 U	4.1	2.1	0.66	ng/L	12/20/22	1	EPA 1633	BBL0357
PFNS	2.0 U	4.1	2.0	1.3	ng/L	12/14/22	1	EPA 1633	BBL0300
PFDS	2.0 U	4.1	2.0	1.5	ng/L	12/14/22	1	EPA 1633	BBL0300
PFDOS	2.0 U	4.1	2.0	1.3	ng/L	12/14/22	1	EPA 1633	BBL0300
4:2FTS	8.2 U	16	8.2	3.0	ng/L	12/14/22	1	EPA 1633	BBL0300
6:2FTS	7.1 J	16	8.2	3.2	ng/L	12/14/22	1	EPA 1633	BBL0300
8:2FTS	8.2 U	16	8.2	0.84	ng/L	12/14/22	1	EPA 1633	BBL0300
PFOSA	2.0 U	4.1	2.0	1.1	ng/L	12/14/22	1	EPA 1633	BBL0300
NMeFOSA	8.2 U	16	8.2	4.8	ng/L	12/14/22	1	EPA 1633	BBL0300
NEtFOSA	8.2 U	16	8.2	4.2	ng/L	12/14/22	1	EPA 1633	BBL0300
NMeFOSAA	2.0 U	4.1	2.0	1.1	ng/L	12/14/22	1	EPA 1633	BBL0300
NEtFOSAA	2.0 U	4.1	2.0	1.2	ng/L	12/14/22	1	EPA 1633	BBL0300
NMeFOSE	12 U	16	12	10	ng/L	12/14/22	1	EPA 1633	BBL0300
NEtFOSE	12 U	16	12	11	ng/L	12/14/22	1	EPA 1633	BBL0300
HFPO-DA	4.1 U	8.2	4.1	1.8	ng/L	12/14/22	1	EPA 1633	BBL0300
ADONA	4.1 U	8.2	4.1	1.3	ng/L	12/14/22	1	EPA 1633	BBL0300
PFEESA	4.1 U	8.2	4.1	1.1	ng/L	12/14/22	1	EPA 1633	BBL0300
PFMPA	4.1 U	8.2	4.1	0.55	ng/L	12/14/22	1	EPA 1633	BBL0300
PFMBA	4.1 U	8.2	4.1	0.92	ng/L	12/14/22	1	EPA 1633	BBL0300
NFDHA	4.1 U	8.2	4.1	3.1	ng/L	12/14/22	1	EPA 1633	BBL0300
9CL-PF3ONS	4.1 U	8.2	4.1	2.1	ng/L	12/14/22	1	EPA 1633	BBL0300
11CL-PF3OUDS	4.1 U	8.2	4.1	2.1	ng/L	12/14/22	1	EPA 1633	BBL0300
3:3FTCA	8.2 U	16	8.2	5.9	ng/L	12/14/22	1	EPA 1633	BBL0300
5:3FTCA	8.2 U	16	8.2	4.5	ng/L	12/14/22	1	EPA 1633	BBL0300
7:3FTCA	8.2 U	16	8.2	5.6	ng/L	12/14/22	1	EPA 1633	BBL0300
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Surrogate: 13C4-PFBA	136%		20-150			12/14/22	1	EPA 1633	BBL0300
Surrogate: 13C5-PFPEA	128%		20-150			12/14/22	1	EPA 1633	BBL0300
Surrogate: 13C5-PFHXA	137%		20-150			12/14/22	1	EPA 1633	BBL0300
Surrogate: 13C4-PFHPA	123%		20-150			12/14/22	1	EPA 1633	BBL0300
Surrogate: 13C8-PFOA	147%		20-150			12/14/22	1	EPA 1633	BBL0300

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## Sample Results (Continued)

**Sample: AF-HDMW225303-WGN01B-2212W2 (Continued)**  
**22L0083-01 (Water)**

### Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result /Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
Surrogate: 13C9-PFNA	120%		20-150			12/14/22	1	EPA 1633	BBL0300
Surrogate: 13C6-PFDA	147%		20-150			12/14/22	1	EPA 1633	BBL0300
Surrogate: 13C7-PFUnA	138%		20-150			12/14/22	1	EPA 1633	BBL0300
Surrogate: 13C2-PFDOA	130%		20-150			12/14/22	1	EPA 1633	BBL0300
Surrogate: 13C2-PFTEDA	121%		20-150			12/14/22	1	EPA 1633	BBL0300
Surrogate: 13C3-PFBS	134%		20-150			12/14/22	1	EPA 1633	BBL0300
Surrogate: 13C3-PFHXS	129%		20-150			12/14/22	1	EPA 1633	BBL0300
Surrogate: 13C8-PFOS	123%		20-150			12/14/22	1	EPA 1633	BBL0300
Surrogate: 13C8-PFOS	95.0%		20-150			12/20/22	1	EPA 1633	BBL0357
Surrogate: 13C2-4:2FTS	132%		20-150			12/14/22	1	EPA 1633	BBL0300
Surrogate: 13C2-6:2FTS	133%		20-150			12/14/22	1	EPA 1633	BBL0300
Surrogate: 13C2-8:2FTS	123%		20-150			12/14/22	1	EPA 1633	BBL0300
Surrogate: 13C8-PFOA	104%		20-150			12/14/22	1	EPA 1633	BBL0300
Surrogate: D5-NETFOA	86.5%		20-150			12/14/22	1	EPA 1633	BBL0300
Surrogate: D3-NMEFOA	88.7%		20-150			12/14/22	1	EPA 1633	BBL0300
Surrogate: D3-NMEFOA	120%		20-150			12/14/22	1	EPA 1633	BBL0300
Surrogate: D5-NETFOA	147%		20-150			12/14/22	1	EPA 1633	BBL0300
Surrogate: D7-NMEFOE	89.2%		20-150			12/14/22	1	EPA 1633	BBL0300
Surrogate: D9-NETFOE	95.8%		20-150			12/14/22	1	EPA 1633	BBL0300
Surrogate: 13C3-HFPO-DA	131%		20-150			12/14/22	1	EPA 1633	BBL0300



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## Sample Results (Continued)

**Sample: AF-RHMW03-WGN01LF-2212W2  
22L0083-02 (Water)**

### Per- and Polyfluoroalkyl Substances

Analyte	Result /Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
PFBA	2.8	1.4	0.70	0.18	ng/L	12/14/22	1	EPA 1633	BBL0295
PFPEA	3.8	0.70	0.35	0.057	ng/L	12/14/22	1	EPA 1633	BBL0295
PFHXA	1.5	0.35	0.17	0.048	ng/L	12/14/22	1	EPA 1633	BBL0295
PFHPA	0.87	0.35	0.17	0.036	ng/L	12/14/22	1	EPA 1633	BBL0295
PFOA	0.30 J	0.35	0.17	0.13	ng/L	12/14/22	1	EPA 1633	BBL0295
PFNA	0.17 J	0.35	0.17	0.071	ng/L	12/14/22	1	EPA 1633	BBL0295
PFDA	0.16 J	0.35	0.17	0.088	ng/L	12/14/22	1	EPA 1633	BBL0295
PFUnA	0.15 J IR2,	0.35	0.17	0.14	ng/L	12/14/22	1	EPA 1633	BBL0295
PFDOA	0.17 U	0.35	0.17	0.098	ng/L	12/14/22	1	EPA 1633	BBL0295
PFTRDA	0.26 U	0.35	0.26	0.18	ng/L	12/14/22	1	EPA 1633	BBL0295
PFTEDA	0.17 U	0.35	0.17	0.17	ng/L	12/14/22	1	EPA 1633	BBL0295
PFBS	0.17 U	0.35	0.17	0.032	ng/L	12/14/22	1	EPA 1633	BBL0295
PFPEs	0.17 U	0.35	0.17	0.055	ng/L	12/14/22	1	EPA 1633	BBL0295
PFHXS	0.067 J	0.35	0.17	0.028	ng/L	12/14/22	1	EPA 1633	BBL0295
PFHPS	0.17 U	0.35	0.17	0.045	ng/L	12/14/22	1	EPA 1633	BBL0295
PFOS	0.13 J IR2,	0.36	0.18	0.057	ng/L	12/20/22	1	EPA 1633	BBL0355
PFNS	0.17 U	0.35	0.17	0.11	ng/L	12/14/22	1	EPA 1633	BBL0295
PFDS	0.17 U	0.35	0.17	0.13	ng/L	12/14/22	1	EPA 1633	BBL0295
PFDOS	0.17 U	0.35	0.17	0.11	ng/L	12/14/22	1	EPA 1633	BBL0295
4:2FTS	0.70 U	1.4	0.70	0.25	ng/L	12/14/22	1	EPA 1633	BBL0295
6:2FTS	5.2	1.4	0.72	0.28	ng/L	12/20/22	1	EPA 1633	BBL0355
8:2FTS	0.70 U	1.4	0.70	0.072	ng/L	12/14/22	1	EPA 1633	BBL0295
PFOSA	0.17 U	0.35	0.17	0.091	ng/L	12/14/22	1	EPA 1633	BBL0295
NMeFOSA	0.70 U	1.4	0.70	0.41	ng/L	12/14/22	1	EPA 1633	BBL0295
NEtFOSA	0.70 U	1.4	0.70	0.36	ng/L	12/14/22	1	EPA 1633	BBL0295
NMeFOSAA	0.17 U	0.35	0.17	0.092	ng/L	12/14/22	1	EPA 1633	BBL0295
NEtFOSAA	0.17 U	0.35	0.17	0.10	ng/L	12/14/22	1	EPA 1633	BBL0295
NMeFOSE	1.0 U	1.4	1.0	0.88	ng/L	12/14/22	1	EPA 1633	BBL0295
NEtFOSE	1.0 U	1.4	1.0	0.91	ng/L	12/14/22	1	EPA 1633	BBL0295
HFPO-DA	0.35 U	0.70	0.35	0.15	ng/L	12/14/22	1	EPA 1633	BBL0295
ADONA	0.35 U	0.70	0.35	0.11	ng/L	12/14/22	1	EPA 1633	BBL0295
PFEESA	0.35 U	0.70	0.35	0.095	ng/L	12/14/22	1	EPA 1633	BBL0295
PFMPA	0.35 U	0.70	0.35	0.047	ng/L	12/14/22	1	EPA 1633	BBL0295
PFMBA	0.35 U	0.70	0.35	0.079	ng/L	12/14/22	1	EPA 1633	BBL0295
NFDHA	0.35 U	0.70	0.35	0.26	ng/L	12/14/22	1	EPA 1633	BBL0295
9CL-PF3ONS	0.35 U	0.70	0.35	0.18	ng/L	12/14/22	1	EPA 1633	BBL0295
11CL-PF3OUDS	0.35 U	0.70	0.35	0.18	ng/L	12/14/22	1	EPA 1633	BBL0295
3:3FTCA	0.70 U	1.4	0.70	0.50	ng/L	12/14/22	1	EPA 1633	BBL0295
5:3FTCA	0.70 U	1.4	0.70	0.39	ng/L	12/14/22	1	EPA 1633	BBL0295
7:3FTCA	0.70 U	1.4	0.70	0.48	ng/L	12/14/22	1	EPA 1633	BBL0295
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Surrogate: 13C4-PFBA	110%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C5-PFPEA	104%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C5-PFHXA	133%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C4-PFHPA	128%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C8-PFOA	134%		20-150			12/14/22	1	EPA 1633	BBL0295

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## Sample Results (Continued)

### Sample: AF-RHMW03-WGN01LF-2212W2 (Continued) 22L0083-02 (Water)

#### Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result /Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
Surrogate: 13C9-PFNA	125%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C6-PFDA	127%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C7-PFUnA	156% S2		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C7-PFUnA	139%		20-150			12/14/22	10	EPA 1633	BBL0295
Surrogate: 13C2-PFDOA	108%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C2-PFTEDA	90.5%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C3-PFBS	129%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C3-PFHXS	130%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C8-PFOS	120%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C8-PFOS	79.7%		20-150			12/20/22	1	EPA 1633	BBL0355
Surrogate: 13C2-4:2FTS	201% S2		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C2-4:2FTS	117%		20-150			12/14/22	10	EPA 1633	BBL0295
Surrogate: 13C2-6:2FTS	139%		20-150			12/20/22	1	EPA 1633	BBL0355
Surrogate: 13C2-8:2FTS	139%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C8-PFOA	93.7%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: D5-NETFOA	77.6%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: D3-NMEFOA	70.7%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: D3-NMEFOA	156% S2		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: D3-NMEFOA	136%		20-150			12/14/22	10	EPA 1633	BBL0295
Surrogate: D5-NETFOA	148%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: D7-NMEFOE	80.2%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: D9-NETFOE	85.4%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C3-HFPO-DA	117%		20-150			12/14/22	1	EPA 1633	BBL0295

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## Sample Results (Continued)

**Sample: AF-RHMW02-WGN01LF-2212W2  
22L0083-03 (Water)**

### Per- and Polyfluoroalkyl Substances

Analyte	Result /Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
PFBA	0.68 U	1.4	0.68	0.18	ng/L	12/14/22	1	EPA 1633	BBL0295
PFPEA	0.48 J	0.68	0.34	0.055	ng/L	12/14/22	1	EPA 1633	BBL0295
PFHXA	0.21 J	0.34	0.17	0.047	ng/L	12/14/22	1	EPA 1633	BBL0295
PFHPA	0.16 J IR1,	0.34	0.17	0.035	ng/L	12/14/22	1	EPA 1633	BBL0295
PFOA	0.17 U	0.34	0.17	0.13	ng/L	12/14/22	1	EPA 1633	BBL0295
PFNA	0.17 U	0.34	0.17	0.070	ng/L	12/14/22	1	EPA 1633	BBL0295
PFDA	0.17 U	0.34	0.17	0.086	ng/L	12/14/22	1	EPA 1633	BBL0295
PFUnA	0.17 U	0.34	0.17	0.14	ng/L	12/14/22	1	EPA 1633	BBL0295
PFDOA	0.17 U	0.34	0.17	0.095	ng/L	12/14/22	1	EPA 1633	BBL0295
PFTRDA	0.26 U	0.34	0.26	0.17	ng/L	12/14/22	1	EPA 1633	BBL0295
PFTEDA	0.17 U	0.34	0.17	0.17	ng/L	12/14/22	1	EPA 1633	BBL0295
PFBS	0.17 U	0.34	0.17	0.031	ng/L	12/14/22	1	EPA 1633	BBL0295
PFPEs	0.17 U	0.34	0.17	0.053	ng/L	12/14/22	1	EPA 1633	BBL0295
PFHXS	0.17 U	0.34	0.17	0.027	ng/L	12/14/22	1	EPA 1633	BBL0295
PFHPS	0.17 U	0.34	0.17	0.044	ng/L	12/14/22	1	EPA 1633	BBL0295
PFOS	0.18 J	0.37	0.18	0.058	ng/L	12/20/22	1	EPA 1633	BBL0355
PFNS	0.17 U	0.34	0.17	0.11	ng/L	12/14/22	1	EPA 1633	BBL0295
PFDS	0.17 U	0.34	0.17	0.13	ng/L	12/14/22	1	EPA 1633	BBL0295
PFDOS	0.17 U	0.34	0.17	0.10	ng/L	12/14/22	1	EPA 1633	BBL0295
4:2FTS	0.68 U	1.4	0.68	0.25	ng/L	12/14/22	1	EPA 1633	BBL0295
6:2FTS	2.1	1.5	0.73	0.29	ng/L	12/20/22	1	EPA 1633	BBL0355
8:2FTS	0.68 U	1.4	0.68	0.070	ng/L	12/14/22	1	EPA 1633	BBL0295
PFOSA	0.17 U	0.34	0.17	0.089	ng/L	12/14/22	1	EPA 1633	BBL0295
NMeFOSA	0.68 U	1.4	0.68	0.40	ng/L	12/14/22	1	EPA 1633	BBL0295
NEtFOSA	0.68 U	1.4	0.68	0.35	ng/L	12/14/22	1	EPA 1633	BBL0295
NMeFOSAA	0.17 U	0.34	0.17	0.090	ng/L	12/14/22	1	EPA 1633	BBL0295
NEtFOSAA	0.17 U	0.34	0.17	0.098	ng/L	12/14/22	1	EPA 1633	BBL0295
NMeFOSE	1.0 U	1.4	1.0	0.86	ng/L	12/14/22	1	EPA 1633	BBL0295
NEtFOSE	1.0 U	1.4	1.0	0.89	ng/L	12/14/22	1	EPA 1633	BBL0295
HFPO-DA	0.34 U	0.68	0.34	0.15	ng/L	12/14/22	1	EPA 1633	BBL0295
ADONA	0.34 U	0.68	0.34	0.11	ng/L	12/14/22	1	EPA 1633	BBL0295
PFEESA	0.34 U	0.68	0.34	0.093	ng/L	12/14/22	1	EPA 1633	BBL0295
PFMPA	0.34 U	0.68	0.34	0.046	ng/L	12/14/22	1	EPA 1633	BBL0295
PFMBA	0.34 U	0.68	0.34	0.077	ng/L	12/14/22	1	EPA 1633	BBL0295
NFDHA	0.34 U	0.68	0.34	0.26	ng/L	12/14/22	1	EPA 1633	BBL0295
9CL-PF3ONS	0.34 U	0.68	0.34	0.18	ng/L	12/14/22	1	EPA 1633	BBL0295
11CL-PF3OUDS	0.34 U	0.68	0.34	0.18	ng/L	12/14/22	1	EPA 1633	BBL0295
3:3FTCA	0.68 U	1.4	0.68	0.49	ng/L	12/14/22	1	EPA 1633	BBL0295
5:3FTCA	0.68 U	1.4	0.68	0.38	ng/L	12/14/22	1	EPA 1633	BBL0295
7:3FTCA	0.68 U	1.4	0.68	0.47	ng/L	12/14/22	1	EPA 1633	BBL0295
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Surrogate: 13C4-PFBA	82.4%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C5-PFPEA	92.3%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C5-PFHXA	125%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C4-PFHPA	144%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C8-PFOA	145%		20-150			12/14/22	1	EPA 1633	BBL0295

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

Reported: 12/22/2022 07:00

## Sample Results (Continued)

### Sample: AF-RHMW02-WGN01LF-2212W2 (Continued) 22L0083-03 (Water)

#### Per- and Polyfluoroalkyl Substances (Continued)

Analyte	Result /Qual	LOQ	LOD	DL	Units	Date Analyzed	DF	Method	Prep Batch
Surrogate: 13C9-PFNA	132%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C6-PFDA	138%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C7-PFUnA	141%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C2-PFDOA	124%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C2-PFTEDA	88.1%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C3-PFBS	126%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C3-PFHXS	128%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C8-PFOS	131%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C8-PFOS	86.7%		20-150			12/20/22	1	EPA 1633	BBL0355
Surrogate: 13C2-4:2FTS	183% S2		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C2-4:2FTS	124%		20-150			12/14/22	10	EPA 1633	BBL0295
Surrogate: 13C2-6:2FTS	129%		20-150			12/20/22	1	EPA 1633	BBL0355
Surrogate: 13C2-8:2FTS	128%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C8-PFOA	78.9%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: D5-NETFOA	58.0%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: D3-NMEFOA	57.6%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: D3-NMEFOA	136%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: D5-NETFOA	144%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: D7-NMEFOE	67.0%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: D9-NETFOE	82.8%		20-150			12/14/22	1	EPA 1633	BBL0295
Surrogate: 13C3-HFPO-DA	106%		20-150			12/14/22	1	EPA 1633	BBL0295

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Project Manager: Watson Tanji

Reported: 12/22/2022 07:00

## 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: BBL0295 - 1633

##### Blank (BBL0295-BLK1)

Prepared & Analyzed: 12/14/22 19:49

	ng/L			
PFBA	0.80 U	1.6	0.80	0.21
PFPEA	0.40 U	0.80	0.40	0.065
PFHXA	0.20 U IR2,	0.40	0.20	0.055
PFHPA	0.20 U	0.40	0.20	0.041
PFOA	0.20 U	0.40	0.20	0.15
PFNA	0.20 U	0.40	0.20	0.082
PFDA	0.20 U	0.40	0.20	0.10
PFUnA	0.20 U	0.40	0.20	0.16
PFDOA	0.20 U	0.40	0.20	0.11
PFTRDA	0.30 U	0.40	0.30	0.20
PFTEDA	0.20 U	0.40	0.20	0.20
PFBS	0.20 U	0.40	0.20	0.037
PFPEs	0.20 U	0.40	0.20	0.063
PFHXS	0.0457 J	0.40	0.20	0.032
PFHPS	0.20 U	0.40	0.20	0.051
PFOS	1.11 B	0.40	0.20	0.064
PFNS	0.20 U	0.40	0.20	0.12
PFDS	0.20 U	0.40	0.20	0.15
PFDOS	0.20 U	0.40	0.20	0.12
4:2FTS	0.80 U	1.6	0.80	0.29
6:2FTS	0.80 U	1.6	0.80	0.31
8:2FTS	0.80 U	1.6	0.80	0.082
PFOSA	0.20 U	0.40	0.20	0.10
NMeFOSA	0.80 U	1.6	0.80	0.47
NEtFOSA	0.80 U	1.6	0.80	0.41
NMeFOSAA	0.20 U	0.40	0.20	0.11
NEtFOSAA	0.20 U	0.40	0.20	0.11
NMeFOSE	1.2 U	1.6	1.2	1.0
NEtFOSE	1.2 U	1.6	1.2	1.0
HFPO-DA	0.40 U	0.80	0.40	0.17
ADONA	0.40 U	0.80	0.40	0.12
PFEESA	0.40 U	0.80	0.40	0.11
PFMPA	0.40 U	0.80	0.40	0.054
PFMBA	0.40 U	0.80	0.40	0.091
NFDHA	0.40 U	0.80	0.40	0.30
9CL-PF3ONS	0.40 U	0.80	0.40	0.21
11CL-PF3OUDS	0.40 U	0.80	0.40	0.21
3:3FTCA	0.80 U	1.6	0.80	0.57
5:3FTCA	0.80 U	1.6	0.80	0.44
7:3FTCA	0.80 U	1.6	0.80	0.55

#### Surrogates

13C4-PFBA	38.8	32.0	121	20-150
13C5-PFPEA	17.2	16.0	107	20-150
13C5-PFHXA	9.53	8.00	119	20-150
13C4-PFHPA	9.60	8.00	120	20-150
13C8-PFOA	9.61	8.00	120	20-150

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Reported: 12/22/2022 07:00

### 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: BBL0295 - 1633 (Continued)

##### Blank (BBL0295-BLK1)

Prepared & Analyzed: 12/14/22 19:49

ng/L

##### Surrogates

13C9-PFNA	4.59				4.00		115	20-150		
13C6-PFDA	4.93				4.00		123	20-150		
13C7-PFUnA	4.89				4.00		122	20-150		
13C2-PFDOA	4.97				4.00		124	20-150		
13C2-PFTEDA	5.26				4.00		132	20-150		
13C3-PFBS	9.88				8.00		124	20-150		
13C3-PFHXS	9.59				8.00		120	20-150		
13C8-PFOS	10.2				8.00		127	20-150		
13C2-4:2FTS	19.9				16.0		124	20-150		
13C2-6:2FTS	20.3				16.0		127	20-150		
13C2-8:2FTS	21.7				16.0		136	20-150		
13C8-PFOA	9.12				8.00		114	20-150		
D5-NETFOA	5.69				8.00		71.2	20-150		
D3-NMEFOA	5.38				8.00		67.2	20-150		
D3-NMEFOA	17.1				16.0		107	20-150		
D5-NETFOA	19.8				16.0		124	20-150		
D7-NMEFOA	69.7				80.0		87.2	20-150		
D9-NETFOA	75.7				80.0		94.6	20-150		
13C3-HFPO-DA	42.3				32.0		132	20-150		

##### LCS (BBL0295-BS1)

Prepared & Analyzed: 12/14/22 20:02

ng/L

PFBA	16.3				16.0		102	40-150		
PFPEA	8.04				8.00		101	40-150		
PFHXA	4.08				4.00		102	40-150		
PFHPA	4.14				4.00		104	40-150		
PFOA	3.88				4.00		97.1	40-150		
PFNA	3.85				4.00		96.2	40-150		
PFDA	3.89				4.00		97.4	40-150		
PFUnA	3.57				4.00		89.2	40-150		
PFDOA	4.29				4.00		107	40-150		
PFTRDA	3.85				4.00		96.3	40-150		
PFTEDA	4.16				4.00		104	40-150		
PFBS	3.45				3.54		97.4	40-150		
PFPEA	3.75				3.76		99.7	40-150		
PFHXS	3.54				3.66		96.8	40-150		
PFHPS	3.73				3.82		97.6	40-150		
PFOS	4.53				3.72		122	40-150		
PFNS	4.18				3.84		109	40-150		
PFDS	3.59				3.86		93.0	40-150		
PFDOS	3.95				3.88		102	40-150		
4:2FTS	14.8				15.0		98.8	40-150		
6:2FTS	15.2				15.2		100	40-150		
8:2FTS	15.9				15.4		104	40-150		
PFOA	4.11				4.00		103	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
<b>Batch: BBL0295 - 1633 (Continued)</b>										
<b>LCS (BBL0295-BS1)</b>										
	ng/L									
NMeFOSA	20.2				16.0		126	40-150		
NETFOSA	18.4				16.0		115	40-150		
NMeFOSAA	4.20				4.00		105	40-150		
NETFOSAA	4.58				4.00		115	40-150		
NMeFOSE	16.9				16.0		106	40-150		
NETFOSE	16.8				16.0		105	40-150		
HFPO-DA	8.72				8.00		109	40-150		
ADONA	7.70				7.56		102	40-150		
PFEESA	7.25				7.12		102	40-150		
PFMPA	7.94				8.00		99.2	40-150		
PFMBA	7.31				8.00		91.4	40-150		
NFDHA	6.32				8.00		79.0	40-150		
9CL-PF3ONS	7.35				7.48		98.2	40-150		
11CL-PF3OUDS	8.36				7.56		111	40-150		
3:3FTCA	15.6				16.0		97.7	40-150		
5:3FTCA	17.0				16.0		106	40-150		
7:3FTCA	15.0				16.0		93.9	40-150		
<b>Surrogates</b>										
13C4-PFBA	41.8				32.0		131	20-150		
13C5-PFPEA	19.6				16.0		123	20-150		
13C5-PFHXA	10.2				8.00		128	20-150		
13C4-PFHXA	9.87				8.00		123	20-150		
13C8-PFOA	10.6				8.00		132	20-150		
13C9-PFNA	5.51				4.00		138	20-150		
13C6-PFDA	5.76				4.00		144	20-150		
13C7-PFUnA	6.99 S2				4.00		175	20-150		
13C2-PFDOA	5.45				4.00		136	20-150		
13C2-PFTEDA	5.50				4.00		138	20-150		
13C3-PFBS	10.1				8.00		126	20-150		
13C3-PFHXS	10.5				8.00		132	20-150		
13C8-PFOS	9.83				8.00		123	20-150		
13C2-4:2FTS	21.0				16.0		131	20-150		
13C2-6:2FTS	20.4				16.0		128	20-150		
13C2-8:2FTS	19.7				16.0		123	20-150		
13C8-PFOSA	10.5				8.00		131	20-150		
D5-NETFOSA	5.91				8.00		73.9	20-150		
D3-NMEFOSA	5.15				8.00		64.3	20-150		
D3-NMEFOSAA	19.7				16.0		123	20-150		
D5-NETFOSAA	23.3				16.0		146	20-150		
D7-NMEFOSE	76.6				80.0		95.8	20-150		
D9-NETFOSE	77.2				80.0		96.5	20-150		
13C3-HFPO-DA	37.9				32.0		119	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: BBL0295 - 1633 (Continued)

##### MRL Check (BBL0295-MRL1)

Prepared & Analyzed: 12/14/22 20:15

Analyte	Result/Qual	LOQ	LOD	MDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
	ng/L									
PFBA	1.44 J				1.60		89.7	40-150		
PFPEA	0.857				0.800		107	40-150		
PFHXA	0.475				0.400		119	40-150		
PFHPA	0.449				0.400		112	40-150		
PFOA	0.561				0.400		140	40-150		
PFNA	0.402 IR2				0.400		101	40-150		
PFDA	0.405 IR2				0.400		101	40-150		
PFUnA	0.336 J				0.400		83.9	40-150		
PFDOA	0.397 J				0.400		99.2	40-150		
PFTRDA	0.373 J				0.400		93.3	40-150		
PFTEDA	0.440				0.400		110	40-150		
PFBS	0.357 J				0.354		101	40-150		
PFPEs	0.340 J				0.376		90.5	40-150		
PFHXS	0.330 J				0.366		90.2	40-150		
PFHPS	0.356 J				0.382		93.1	40-150		
PFOS	0.885 BS2				0.372		238	40-150		
PFNS	0.353 J				0.384		92.0	40-150		
PFDS	0.326 J				0.386		84.6	40-150		
PFDOS	0.344 J				0.388		88.6	40-150		
4:2FTS	1.39 J				1.50		92.8	40-150		
6:2FTS	2.55 BS2				1.52		168	40-150		
8:2FTS	1.42 J IR2,				1.54		92.7	40-150		
PFOSA	0.347 J				0.400		86.8	40-150		
NMeFOSA	1.40 J				1.60		87.3	40-150		
NEtFOSA	1.55 J				1.60		96.6	40-150		
NMeFOSAA	0.445				0.400		111	40-150		
NEtFOSAA	0.331 J				0.400		82.7	40-150		
NMeFOSE	1.37 J				1.60		85.3	40-150		
NEtFOSE	1.53 J				1.60		95.9	40-150		
HFPO-DA	0.697 J				0.800		87.1	40-150		
ADONA	0.768 J				0.756		102	40-150		
PFEESA	0.702 J				0.712		98.6	40-150		
PFMPA	0.661 J				0.800		82.7	40-150		
PFMBA	0.712 J				0.800		89.0	40-150		
NFDHA	0.40 U IR2,				0.800			40-150		
9CL-PF3ONS	0.778 J				0.748		104	40-150		
11CL-PF3OUDS	0.771 J				0.756		102	40-150		
3:3FTCA	1.64				1.60		103	40-150		
5:3FTCA	1.95				1.60		122	40-150		
7:3FTCA	1.74				1.60		109	40-150		

#### Surrogates

13C4-PFBA	42.3				32.0		132	20-150		
13C5-PFPEA	17.5				16.0		110	20-150		
13C5-PFHXA	9.23				8.00		115	20-150		
13C4-PFHPA	9.97				8.00		125	20-150		
13C8-PFOA	10.8				8.00		135	20-150		



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

Reported: 12/22/2022 07:00

### 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: BBL0295 - 1633 (Continued)

##### MRL Check (BBL0295-MRL1)

Prepared & Analyzed: 12/14/22 20:15

ng/L

##### Surrogates

13C9-PFNA	4.49				4.00		112	20-150		
13C6-PFDA	4.61				4.00		115	20-150		
13C7-PFUnA	6.06 S2				4.00		152	20-150		
13C2-PFDOA	4.33				4.00		108	20-150		
13C2-PFTEDA	5.16				4.00		129	20-150		
13C3-PFBS	9.62				8.00		120	20-150		
13C3-PFHXS	10.2				8.00		128	20-150		
13C8-PFOS	9.78				8.00		122	20-150		
13C2-4:2FTS	20.0				16.0		125	20-150		
13C2-6:2FTS	21.2				16.0		132	20-150		
13C2-8:2FTS	21.1				16.0		132	20-150		
13C8-PFOA	8.50				8.00		106	20-150		
D5-NETFOA	4.08				8.00		51.0	20-150		
D3-NMEFOA	4.00				8.00		49.9	20-150		
D3-NMEFOSAA	18.3				16.0		114	20-150		
D5-NETFOSAA	22.3				16.0		139	20-150		
D7-NMEFOSE	64.1				80.0		80.1	20-150		
D9-NETFOSE	66.7				80.0		83.4	20-150		
13C3-HFPO-DA	36.6				32.0		114	20-150		

#### Batch: BBL0300 - 1633

##### Blank (BBL0300-BLK1)

Prepared & Analyzed: 12/14/22 21:18

ng/L

PFBA	8.0 U	16	8.0	2.1
PFPEA	4.0 U	8.0	4.0	0.65
PFHXA	2.0 U	4.0	2.0	0.55
PFHPA	2.0 U	4.0	2.0	0.41
PFOA	2.0 U	4.0	2.0	1.5
PFNA	2.0 U	4.0	2.0	0.82
PFDA	2.0 U	4.0	2.0	1.0
PFUnA	2.0 U	4.0	2.0	1.6
PFDOA	2.0 U	4.0	2.0	1.1
PFTRDA	3.0 U	4.0	3.0	2.0
PFTEDA	2.0 U	4.0	2.0	2.0
PFBS	2.0 U	4.0	2.0	0.37
PFPEA	2.0 U	4.0	2.0	0.63
PFHXS	2.0 U	4.0	2.0	0.32
PFHPS	2.0 U	4.0	2.0	0.51
PFOS	7.88 B	4.0	2.0	0.64
PFNS	2.0 U	4.0	2.0	1.2
PFDS	2.0 U	4.0	2.0	1.5
PFDOS	2.0 U	4.0	2.0	1.2
4:2FTS	8.0 U	16	8.0	2.9
6:2FTS	8.0 U	16	8.0	3.1

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Project: Red Hill AFFF Assessment Sampling  
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Reported: 12/22/2022 07:00

### 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: BBL0300 - 1633 (Continued)

##### Blank (BBL0300-BLK1)

Prepared & Analyzed: 12/14/22 21:18

Analyte	Result/Qual	LOQ	LOD	MDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
	ng/L									
8:2FTS	8.0 U	16	8.0	0.82						
PFOSA	5.43 B	4.0	2.0	1.0						
NMeFOSA	8.0 U	16	8.0	4.7						
NETFOSA	8.0 U	16	8.0	4.1						
NMeFOSAA	2.0 U	4.0	2.0	1.1						
NETFOSAA	2.0 U	4.0	2.0	1.1						
NMeFOSE	12 U	16	12	10						
NETFOSE	12 U	16	12	10						
HFPO-DA	4.0 U	8.0	4.0	1.7						
ADONA	4.0 U	8.0	4.0	1.2						
PFEESA	4.0 U	8.0	4.0	1.1						
PFMPA	4.0 U	8.0	4.0	0.54						
PFMBA	4.0 U	8.0	4.0	0.91						
NFDHA	4.0 U	8.0	4.0	3.0						
9CL-PF3ONS	4.0 U	8.0	4.0	2.1						
11CL-PF3OUDS	4.0 U	8.0	4.0	2.1						
3:3FTCA	8.0 U	16	8.0	5.7						
5:3FTCA	8.0 U	16	8.0	4.4						
7:3FTCA	8.0 U	16	8.0	5.5						

#### Surrogates

13C4-PFBA	433			320		135	20-150
13C5-PFPEA	195			160		122	20-150
13C5-PFHXA	111			80.0		138	20-150
13C4-PFHFA	97.2			80.0		121	20-150
13C8-PFOA	100			80.0		125	20-150
13C9-PFNA	50.7			40.0		127	20-150
13C6-PFDA	44.6			40.0		112	20-150
13C7-PFUnA	44.6			40.0		111	20-150
13C2-PFDOA	47.0			40.0		117	20-150
13C2-PFTEDA	48.0			40.0		120	20-150
13C3-PFBS	105			80.0		131	20-150
13C3-PFHXS	98.2			80.0		123	20-150
13C8-PFOS	102			80.0		128	20-150
13C2-4:2FTS	207			160		129	20-150
13C2-6:2FTS	192			160		120	20-150
13C2-8:2FTS	211			160		132	20-150
13C8-PFOSA	87.2			80.0		109	20-150
D5-NETFOSA	57.6			80.0		72.1	20-150
D3-NMEFOSA	55.5			80.0		69.3	20-150
D3-NMEFOSAA	179			160		112	20-150
D5-NETFOSAA	200			160		125	20-150
D7-NMEFOSE	726			800		90.7	20-150
D9-NETFOSE	826			800		103	20-150
13C3-HFPO-DA	402			320		126	20-150

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Project: Red Hill AFFF Assessment Sampling  
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Reported: 12/22/2022 07:00

### 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: BBL0300 - 1633 (Continued)

##### LCS (BBL0300-BS1)

Prepared & Analyzed: 12/14/22 21:31

Analyte	Result/Qual	LOQ	LOD	MDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
	ng/L									
PFBA	173				160		108	40-150		
PFPEA	85.1				80.0		106	40-150		
PFHXA	41.7				40.0		104	40-150		
PFHPA	44.6				40.0		112	40-150		
PFOA	42.2				40.0		105	40-150		
PFNA	49.8				40.0		125	40-150		
PFDA	36.8				40.0		92.0	40-150		
PFUnA	37.4				40.0		93.4	40-150		
PFDOA	42.1				40.0		105	40-150		
PFTRDA	40.1				40.0		100	40-150		
PFTEDA	44.2				40.0		111	40-150		
PFBS	35.6				35.4		101	40-150		
PFPEs	37.2				37.6		98.9	40-150		
PFHXS	34.3				36.6		93.7	40-150		
PFHPS	39.4				38.2		103	40-150		
PFOS	44.9				37.2		121	40-150		
PFNS	39.2				38.4		102	40-150		
PFDS	36.5				38.6		94.5	40-150		
PFDOS	39.3				38.8		101	40-150		
4:2FTS	151				150		100	40-150		
6:2FTS	167				152		110	40-150		
8:2FTS	185				154		121	40-150		
PFOSA	47.9				40.0		120	40-150		
NMeFOSA	222				160		139	40-150		
NEtFOSA	218				160		136	40-150		
NMeFOSAA	46.2				40.0		115	40-150		
NEtFOSAA	46.9				40.0		117	40-150		
NMeFOSE	176				160		110	40-150		
NEtFOSE	161				160		101	40-150		
HFPO-DA	83.2				80.0		104	40-150		
ADONA	75.4				75.6		99.7	40-150		
PFEESA	70.0				71.2		98.4	40-150		
PFMPA	74.2				80.0		92.7	40-150		
PFMBA	75.9				80.0		94.9	40-150		
NFDHA	87.8				80.0		110	40-150		
9CL-PF3ONS	69.6				74.8		93.1	40-150		
11CL-PF3OUDS	73.9				75.6		97.7	40-150		
3:3FTCA	153				160		95.8	40-150		
5:3FTCA	166				160		104	40-150		
7:3FTCA	146				160		91.3	40-150		

#### Surrogates

13C4-PFBA	370				320		116	20-150		
13C5-PFPEA	202				160		126	20-150		
13C5-PFHXA	106				80.0		132	20-150		
13C4-PFHPA	97.9				80.0		122	20-150		
13C8-PFOA	99.7				80.0		125	20-150		

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Project: Red Hill AFFF Assessment Sampling  
Project Number: Red Hill AFFF Assessment Sampling  
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Reported: 12/22/2022 07:00

### 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: BBL0300 - 1633 (Continued)

##### LCS (BBL0300-BS1)

Prepared & Analyzed: 12/14/22 21:31

ng/L										
<b>Surrogates</b>										
13C9-PFNA	43.8				40.0		109	20-150		
13C6-PFDA	58.8				40.0		147	20-150		
13C7-PFUnA	60.3 S2				40.0		151	20-150		
13C2-PFDOA	58.0				40.0		145	20-150		
13C2-PFTEDA	48.2				40.0		121	20-150		
13C3-PFBS	105				80.0		131	20-150		
13C3-PFHXS	111				80.0		139	20-150		
13C8-PFOS	91.4				80.0		114	20-150		
13C2-4:2FTS	223				160		139	20-150		
13C2-6:2FTS	209				160		131	20-150		
13C2-8:2FTS	195				160		122	20-150		
13C8-PFOA	75.2				80.0		94.0	20-150		
D5-NETFOA	53.9				80.0		67.4	20-150		
D3-NMEFOA	49.1				80.0		61.4	20-150		
D3-NMEFOA	170				160		106	20-150		
D5-NETFOA	182				160		114	20-150		
D7-NMEFOA	562				800		70.2	20-150		
D9-NETFOA	623				800		77.9	20-150		
13C3-HFPO-DA	405				320		126	20-150		

##### MRL Check (BBL0300-MRL1)

Prepared & Analyzed: 12/14/22 21:44

ng/L										
PFBA	16.0 J				16.0		99.9	40-150		
PFPEA	8.20				8.00		103	40-150		
PFHXA	4.88				4.00		122	40-150		
PFHPA	4.73				4.00		118	40-150		
PFOA	5.63				4.00		141	40-150		
PFNA	4.75				4.00		119	40-150		
PFDA	5.15				4.00		129	40-150		
PFUnA	4.97				4.00		124	40-150		
PFDOA	3.71 J				4.00		92.8	40-150		
PFTRDA	4.85				4.00		121	40-150		
PFTEDA	4.15 IR2				4.00		104	40-150		
PFBS	4.56				3.54		129	40-150		
PFPEA	3.97 J				3.76		106	40-150		
PFHXS	4.44				3.66		121	40-150		
PFHPS	4.21				3.82		110	40-150		
PFOS	24.2 BS2				3.72		651	40-150		
PFNS	3.33 J IR2,				3.84		86.7	40-150		
PFDS	4.08				3.86		106	40-150		
PFDOS	4.74				3.88		122	40-150		
4:2FTS	15.2 J				15.0		102	40-150		
6:2FTS	14.7 J				15.2		96.5	40-150		
8:2FTS	17.1				15.4		111	40-150		
PFOA	8.57 BS2				4.00		214	40-150		

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Project: Red Hill AFFF Assessment Sampling  
Project Number: Red Hill AFFF Assessment Sampling  
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Reported: 12/22/2022 07:00

### 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: BBL0300 - 1633 (Continued)

##### MRL Check (BBL0300-MRL1)

Prepared & Analyzed: 12/14/22 21:44

Analyte	Result/Qual	LOQ	LOD	MDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
	ng/L									
NMeFOSA	16.7				16.0		105	40-150		
NETFOSA	16.5				16.0		103	40-150		
NMeFOSAA	3.48 J				4.00		87.0	40-150		
NETFOSAA	3.66 J				4.00		91.5	40-150		
NMeFOSE	13.6 J				16.0		85.1	40-150		
NETFOSE	19.4				16.0		121	40-150		
HFPO-DA	7.06 J				8.00		88.3	40-150		
ADONA	6.86 J				7.56		90.7	40-150		
PFEESA	7.00 J				7.12		98.3	40-150		
PFMPA	7.41 J				8.00		92.6	40-150		
PFMBA	8.25				8.00		103	40-150		
NFDHA	9.30 IR1				8.00		116	40-150		
9CL-PF3ONS	7.39 J				7.48		98.8	40-150		
11CL-PF3OUDS	6.68 J				7.56		88.4	40-150		
3:3FTCA	21.7				16.0		135	40-150		
5:3FTCA	18.2				16.0		114	40-150		
7:3FTCA	14.7 J				16.0		92.1	40-150		

#### Surrogates

13C4-PFBA	399				320		125	20-150		
13C5-PFPEA	190				160		119	20-150		
13C5-PFHXA	97.8				80.0		122	20-150		
13C4-PFHXA	95.4				80.0		119	20-150		
13C8-PFOA	106				80.0		132	20-150		
13C9-PFNA	49.5				40.0		124	20-150		
13C6-PFDA	46.0				40.0		115	20-150		
13C7-PFUnA	49.5				40.0		124	20-150		
13C2-PFDOA	45.5				40.0		114	20-150		
13C2-PFTEDA	55.9				40.0		140	20-150		
13C3-PFBS	96.0				80.0		120	20-150		
13C3-PFHXS	103				80.0		128	20-150		
13C8-PFOS	91.7				80.0		115	20-150		
13C2-4:2FTS	206				160		129	20-150		
13C2-6:2FTS	221				160		138	20-150		
13C2-8:2FTS	226				160		141	20-150		
13C8-PFOA	93.4				80.0		117	20-150		
D5-NETFOA	63.5				80.0		79.3	20-150		
D3-NMEFOA	53.9				80.0		67.4	20-150		
D3-NMEFOSAA	174				160		109	20-150		
D5-NETFOSAA	176				160		110	20-150		
D7-NMEFOSE	861				800		108	20-150		
D9-NETFOSE	798				800		99.7	20-150		
13C3-HFPO-DA	417				320		130	20-150		

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Reported: 12/22/2022 07:00

### 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: BBL0355 - 1633

##### Blank (BBL0355-BLK1)

Prepared: 12/19/22 08:59 Analyzed: 12/20/22 12:12

	ng/L			
PFBA	0.80 U	1.6	0.80	0.21
PFPEA	0.40 U	0.80	0.40	0.065
PFHXA	0.20 U	0.40	0.20	0.055
PFHPA	0.20 U	0.40	0.20	0.041
PFOA	0.20 U	0.40	0.20	0.15
PFNA	0.20 U	0.40	0.20	0.082
PFDA	0.20 U	0.40	0.20	0.10
PFUnA	0.20 U	0.40	0.20	0.16
PFDOA	0.20 U	0.40	0.20	0.11
PFTRDA	0.30 U	0.40	0.30	0.20
PFTEDA	0.20 U	0.40	0.20	0.20
PFBS	0.20 U	0.40	0.20	0.037
PFPEs	0.20 U	0.40	0.20	0.063
PFHXS	0.20 U	0.40	0.20	0.032
PFHPS	0.20 U	0.40	0.20	0.051
PFOS	0.0827 J	0.40	0.20	0.064
PFNS	0.20 U	0.40	0.20	0.12
PFDS	0.20 U	0.40	0.20	0.15
PFDOS	0.20 U	0.40	0.20	0.12
4:2FTS	0.80 U	1.6	0.80	0.29
6:2FTS	0.80 U	1.6	0.80	0.31
8:2FTS	0.80 U	1.6	0.80	0.082
PFOSA	0.20 U	0.40	0.20	0.10
NMeFOSA	0.80 U	1.6	0.80	0.47
NEtFOSA	0.80 U	1.6	0.80	0.41
NMeFOSAA	0.20 U	0.40	0.20	0.11
NEtFOSAA	0.20 U	0.40	0.20	0.11
NMeFOSE	1.2 U	1.6	1.2	1.0
NEtFOSE	1.2 U	1.6	1.2	1.0
HFPO-DA	0.40 U	0.80	0.40	0.17
ADONA	0.40 U	0.80	0.40	0.12
PFEESA	0.40 U	0.80	0.40	0.11
PFMPA	0.40 U	0.80	0.40	0.054
PFMBA	0.40 U	0.80	0.40	0.091
NFDHA	0.40 U	0.80	0.40	0.30
9CL-PF3ONS	0.40 U	0.80	0.40	0.21
11CL-PF3OUDS	0.40 U	0.80	0.40	0.21
3:3FTCA	0.80 U	1.6	0.80	0.57
5:3FTCA	0.80 U	1.6	0.80	0.44
7:3FTCA	0.80 U	1.6	0.80	0.55

#### Surrogates

13C4-PFBA	31.5	32.0	98.5	20-150
13C5-PFPEA	16.6	16.0	104	20-150
13C5-PFHXA	8.28	8.00	104	20-150
13C4-PFHPA	7.30	8.00	91.2	20-150
13C8-PFOA	6.94	8.00	86.8	20-150

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Project: Red Hill AFFF Assessment Sampling  
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Reported: 12/22/2022 07:00

### 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: BBL0355 - 1633 (Continued)

##### Blank (BBL0355-BLK1)

Prepared: 12/19/22 08:59 Analyzed: 12/20/22 12:12

ng/L

##### Surrogates

13C9-PFNA	3.74				4.00		93.4	20-150		
13C6-PFDA	3.99				4.00		99.8	20-150		
13C7-PFUnA	4.31				4.00		108	20-150		
13C2-PFDOA	3.98				4.00		99.5	20-150		
13C2-PFTEDA	4.49				4.00		112	20-150		
13C3-PFBS	7.88				8.00		98.6	20-150		
13C3-PFHXS	7.34				8.00		91.7	20-150		
13C8-PFOS	8.46				8.00		106	20-150		
13C2-4:2FTS	17.4				16.0		109	20-150		
13C2-6:2FTS	15.9				16.0		99.4	20-150		
13C2-8:2FTS	17.8				16.0		111	20-150		
13C8-PFOA	7.86				8.00		98.3	20-150		
D5-NETFOA	4.50				8.00		56.3	20-150		
D3-NMEFOA	4.42				8.00		55.3	20-150		
D3-NMEFOA	16.7				16.0		104	20-150		
D5-NETFOA	18.6				16.0		117	20-150		
D7-NMEFOA	75.8				80.0		94.7	20-150		
D9-NETFOA	75.6				80.0		94.5	20-150		
13C3-HFPO-DA	31.8				32.0		99.3	20-150		

##### LCS (BBL0355-BS1)

Prepared: 12/19/22 08:59 Analyzed: 12/20/22 12:25

ng/L

PFBA	15.1				16.0		94.6	40-150		
PFPEA	8.03				8.00		100	40-150		
PFHXA	3.59				4.00		89.8	40-150		
PFHPA	3.85				4.00		96.2	40-150		
PFOA	4.29				4.00		107	40-150		
PFNA	4.25				4.00		106	40-150		
PFDA	4.58				4.00		115	40-150		
PFUnA	4.33				4.00		108	40-150		
PFDOA	3.66				4.00		91.5	40-150		
PFTRDA	4.39				4.00		110	40-150		
PFTEDA	3.25				4.00		81.3	40-150		
PFBS	3.30				3.54		93.2	40-150		
PFPEA	3.33				3.76		88.5	40-150		
PFHXS	3.41				3.66		93.2	40-150		
PFHPS	3.99				3.82		104	40-150		
PFOS	3.96				3.72		107	40-150		
PFNS	4.43				3.84		115	40-150		
PFDS	4.05				3.86		105	40-150		
PFDOS	4.01				3.88		103	40-150		
4:2FTS	14.6				15.0		97.5	40-150		
6:2FTS	14.4				15.2		94.5	40-150		
8:2FTS	16.7				15.4		109	40-150		
PFOA	4.02				4.00		100	40-150		

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

Reported: 12/22/2022 07:00

### 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: BBL0355 - 1633 (Continued)

##### LCS (BBL0355-BS1)

Prepared: 12/19/22 08:59 Analyzed: 12/20/22 12:25

Analyte	Result/Qual	LOQ	LOD	MDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
	ng/L									
NMeFOSA	15.9				16.0		99.7	40-150		
NETFOSA	16.2				16.0		101	40-150		
NMeFOSAA	3.46				4.00		86.5	40-150		
NETFOSAA	3.19				4.00		79.8	40-150		
NMeFOSE	16.8				16.0		105	40-150		
NETFOSE	16.0				16.0		100	40-150		
HFPO-DA	7.53				8.00		94.2	40-150		
ADONA	7.08				7.56		93.7	40-150		
PFEESA	6.79				7.12		95.3	40-150		
PFMPA	7.30				8.00		91.2	40-150		
PFMBA	7.58				8.00		94.7	40-150		
NFDHA	9.74 IR1				8.00		122	40-150		
9CL-PF3ONS	7.76				7.48		104	40-150		
11CL-PF3OUDS	6.75				7.56		89.2	40-150		
3:3FTCA	14.6 IR1				16.0		91.5	40-150		
5:3FTCA	14.8				16.0		92.7	40-150		
7:3FTCA	15.0				16.0		93.5	40-150		

#### Surrogates

13C4-PFBA	31.4				32.0		98.0	20-150		
13C5-PFPEA	14.8				16.0		92.6	20-150		
13C5-PFHXA	7.43				8.00		92.8	20-150		
13C4-PFHXA	7.51				8.00		93.9	20-150		
13C8-PFOA	8.14				8.00		102	20-150		
13C9-PFNA	4.09				4.00		102	20-150		
13C6-PFDA	3.91				4.00		97.7	20-150		
13C7-PFUnA	4.41				4.00		110	20-150		
13C2-PFDOA	4.46				4.00		112	20-150		
13C2-PFTEDA	4.87				4.00		122	20-150		
13C3-PFBS	8.84				8.00		110	20-150		
13C3-PFHXS	8.50				8.00		106	20-150		
13C8-PFOS	7.42				8.00		92.7	20-150		
13C2-4:2FTS	17.4				16.0		109	20-150		
13C2-6:2FTS	16.7				16.0		104	20-150		
13C2-8:2FTS	14.7				16.0		91.7	20-150		
13C8-PFOA	8.29				8.00		104	20-150		
D5-NETFOA	4.88				8.00		61.0	20-150		
D3-NMEFOA	5.35				8.00		66.9	20-150		
D3-NMEFOSAA	16.9				16.0		106	20-150		
D5-NETFOSAA	19.5				16.0		122	20-150		
D7-NMEFOSE	74.0				80.0		92.4	20-150		
D9-NETFOSE	70.8				80.0		88.5	20-150		
13C3-HFPO-DA	29.2				32.0		91.4	20-150		



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Project: Red Hill AFFF Assessment Sampling  
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Reported: 12/22/2022 07:00

### 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: BBL0355 - 1633 (Continued)

##### MRL Check (BBL0355-MRL1)

Prepared: 12/19/22 08:59 Analyzed: 12/20/22 19:04

Analyte	Result/Qual	LOQ	LOD	MDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
	ng/L									
PFBA	1.51 J				1.60		94.6	40-150		
PFPEA	0.680 J				0.800		85.0	40-150		
PFHXA	0.342 J				0.400		85.6	40-150		
PFHPA	0.393 J				0.400		98.3	40-150		
PFOA	0.440				0.400		110	40-150		
PFNA	0.447 IR1				0.400		112	40-150		
PFDA	0.394 J				0.400		98.5	40-150		
PFUnA	0.413 IR1				0.400		103	40-150		
PFDOA	0.441				0.400		110	40-150		
PFTRDA	0.338 J IR2,				0.400		84.5	40-150		
PFTEDA	0.373 J				0.400		93.3	40-150		
PFBS	0.330 J				0.354		93.3	40-150		
PFPEs	0.340 J				0.376		90.6	40-150		
PFHXS	0.317 J				0.366		86.5	40-150		
PFHPS	0.388 J				0.382		101	40-150		
PFOS	0.400				0.372		108	40-150		
PFNS	0.371 J				0.384		96.6	40-150		
PFDS	0.367 J				0.386		95.1	40-150		
PFDOS	0.236 J				0.388		60.9	40-150		
4:2FTS	1.29 J				1.50		86.0	40-150		
6:2FTS	1.31 J				1.52		86.0	40-150		
8:2FTS	1.09 J IR2,				1.54		70.8	40-150		
PFOSA	0.371 J				0.400		92.8	40-150		
NMeFOSA	1.38 J				1.60		86.2	40-150		
NEtFOSA	1.19 J				1.60		74.5	40-150		
NMeFOSAA	0.285 J IR1,				0.400		71.3	40-150		
NEtFOSAA	0.225 J IR2,				0.400		56.3	40-150		
NMeFOSE	1.39 J				1.60		86.8	40-150		
NEtFOSE	1.78				1.60		111	40-150		
HFPO-DA	0.534 J IR2,				0.800		66.7	40-150		
ADONA	0.636 J				0.756		84.1	40-150		
PFEESA	0.501 J IR2,				0.712		70.3	40-150		
PFMPA	0.588 J				0.800		73.5	40-150		
PFMBA	0.684 J				0.800		85.4	40-150		
NFDHA	0.474 J IR1,				0.800		59.3	40-150		
9CL-PF3ONS	0.651 J				0.748		87.1	40-150		
11CL-PF3OUDS	0.701 J				0.756		92.8	40-150		
3:3FTCA	1.03 J IR1,				1.60		64.3	40-150		
5:3FTCA	1.21 J				1.60		75.5	40-150		
7:3FTCA	1.66				1.60		104	40-150		

#### Surrogates

13C4-PFBA	31.8				32.0		99.3	20-150		
13C5-PFPEA	14.8				16.0		92.3	20-150		
13C5-PFHXA	7.09				8.00		88.7	20-150		
13C4-PFHPA	6.36				8.00		79.5	20-150		
13C8-PFOA	7.32				8.00		91.5	20-150		

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

Reported: 12/22/2022 07:00

**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: BBL0355 - 1633 (Continued)**

**MRL Check (BBL0355-MRL1)**

Prepared: 12/19/22 08:59 Analyzed: 12/20/22 19:04

	ng/L							
<b>Surrogates</b>								
13C9-PFNA	4.60			4.00		115	20-150	
13C6-PFDA	3.69			4.00		92.2	20-150	
13C7-PFUnA	4.29			4.00		107	20-150	
13C2-PFDOA	3.84			4.00		96.0	20-150	
13C2-PFTEDA	3.54			4.00		88.4	20-150	
13C3-PFBS	7.81			8.00		97.6	20-150	
13C3-PFHXS	7.71			8.00		96.4	20-150	
13C8-PFOS	7.35			8.00		91.9	20-150	
13C2-4:2FTS	16.8			16.0		105	20-150	
13C2-6:2FTS	14.8			16.0		92.7	20-150	
13C2-8:2FTS	15.5			16.0		97.0	20-150	
13C8-PFOA	7.89			8.00		98.6	20-150	
D5-NETFOA	5.02			8.00		62.8	20-150	
D3-NMEFOA	4.68			8.00		58.5	20-150	
D3-NMEFOA	16.8			16.0		105	20-150	
D5-NETFOA	18.5			16.0		115	20-150	
D7-NMEFOA	66.4			80.0		83.0	20-150	
D9-NETFOA	63.4			80.0		79.2	20-150	
13C3-HFPO-DA	29.2			32.0		91.2	20-150	

**Batch: BBL0357 - 1633**

**Blank (BBL0357-BLK1)**

Prepared: 12/19/22 09:03 Analyzed: 12/20/22 11:09

	ng/L			
PFBA	0.80 U	1.6	0.80	0.21
PFPEA	0.40 U	0.80	0.40	0.065
PFHXA	0.20 U	0.40	0.20	0.055
PFHPA	0.20 U	0.40	0.20	0.041
PFOA	0.20 U	0.40	0.20	0.15
PFNA	0.20 U	0.40	0.20	0.082
PFDA	0.20 U	0.40	0.20	0.10
PFUnA	0.20 U	0.40	0.20	0.16
PFDOA	0.20 U	0.40	0.20	0.11
PFTRDA	0.30 U	0.40	0.30	0.20
PFTEDA	0.20 U	0.40	0.20	0.20
PFBS	0.20 U	0.40	0.20	0.037
PFPEA	0.20 U	0.40	0.20	0.063
PFHXS	0.20 U	0.40	0.20	0.032
PFHPS	0.20 U	0.40	0.20	0.051
PFOS	0.0751 J IR2,	0.40	0.20	0.064
PFNS	0.20 U	0.40	0.20	0.12
PFDS	0.20 U	0.40	0.20	0.15
PFDOS	0.20 U	0.40	0.20	0.12
4:2FTS	0.80 U	1.6	0.80	0.29
6:2FTS	0.80 U	1.6	0.80	0.31

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.

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

Reported: 12/22/2022 07:00

### 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: BBL0357 - 1633 (Continued)

##### Blank (BBL0357-BLK1)

Prepared: 12/19/22 09:03 Analyzed: 12/20/22 11:09

Analyte	Result/Qual	LOQ	LOD	MDL
	ng/L			
8:2FTS	0.80 U	1.6	0.80	0.082
PFOSA	0.20 U	0.40	0.20	0.10
NMeFOSA	0.80 U	1.6	0.80	0.47
NETFOSA	0.80 U	1.6	0.80	0.41
NMeFOSAA	0.20 U	0.40	0.20	0.11
NETFOSAA	0.20 U	0.40	0.20	0.11
NMeFOSE	1.2 U	1.6	1.2	1.0
NETFOSE	1.2 U	1.6	1.2	1.0
HFPO-DA	0.40 U	0.80	0.40	0.17
ADONA	0.40 U	0.80	0.40	0.12
PFEESA	0.40 U	0.80	0.40	0.11
PFMPA	0.40 U	0.80	0.40	0.054
PFMBA	0.40 U	0.80	0.40	0.091
NFDHA	0.40 U	0.80	0.40	0.30
9CL-PF3ONS	0.40 U	0.80	0.40	0.21
11CL-PF3OUDS	0.40 U	0.80	0.40	0.21
3:3FTCA	0.80 U	1.6	0.80	0.57
5:3FTCA	0.80 U	1.6	0.80	0.44
7:3FTCA	0.80 U	1.6	0.80	0.55

#### Surrogates

13C4-PFBA	30.6			32.0	95.7	20-150
13C5-PFPEA	14.8			16.0	92.3	20-150
13C5-PFHXA	8.36			8.00	104	20-150
13C4-PFHFA	6.66			8.00	83.3	20-150
13C8-PFOA	8.49			8.00	106	20-150
13C9-PFNA	3.75			4.00	93.7	20-150
13C6-PFDA	3.40			4.00	85.1	20-150
13C7-PFUnA	4.22			4.00	105	20-150
13C2-PFDOA	3.87			4.00	96.7	20-150
13C2-PFTEDA	3.06			4.00	76.5	20-150
13C3-PFBS	7.89			8.00	98.6	20-150
13C3-PFHXS	8.46			8.00	106	20-150
13C8-PFOS	8.29			8.00	104	20-150
13C2-4:2FTS	17.8			16.0	111	20-150
13C2-6:2FTS	15.2			16.0	94.8	20-150
13C2-8:2FTS	12.2			16.0	76.3	20-150
13C8-PFOSA	7.05			8.00	88.2	20-150
D5-NETFOSA	4.66			8.00	58.2	20-150
D3-NMEFOSA	4.41			8.00	55.1	20-150
D3-NMEFOSAA	14.4			16.0	90.0	20-150
D5-NETFOSAA	16.7			16.0	104	20-150
D7-NMEFOSE	61.2			80.0	76.6	20-150
D9-NETFOSE	58.4			80.0	73.0	20-150
13C3-HFPO-DA	30.1			32.0	94.2	20-150

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Reported: 12/22/2022 07:00

### 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: BBL0357 - 1633 (Continued)

##### LCS (BBL0357-BS1)

Prepared: 12/19/22 09:03 Analyzed: 12/20/22 11:21

Analyte	Result/Qual	LOQ	LOD	MDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
	ng/L									
PFBA	15.1				16.0		94.5	40-150		
PFPEA	8.16				8.00		102	40-150		
PFHXA	3.78				4.00		94.4	40-150		
PFHPA	3.97				4.00		99.3	40-150		
PFOA	4.12				4.00		103	40-150		
PFNA	4.50				4.00		112	40-150		
PFDA	3.90				4.00		97.4	40-150		
PFUnA	3.21				4.00		80.4	40-150		
PFDOA	4.71				4.00		118	40-150		
PFTRDA	4.49				4.00		112	40-150		
PFTEDA	3.32				4.00		83.1	40-150		
PFBS	3.52				3.54		99.5	40-150		
PFPEs	3.46				3.76		92.0	40-150		
PFHXS	3.36				3.66		91.7	40-150		
PFHPS	3.12				3.82		81.6	40-150		
PFOS	3.27				3.72		87.9	40-150		
PFNS	3.42				3.84		89.0	40-150		
PFDS	3.64				3.86		94.3	40-150		
PFDOS	3.98				3.88		103	40-150		
4:2FTS	14.5				15.0		96.4	40-150		
6:2FTS	16.0				15.2		105	40-150		
8:2FTS	15.9				15.4		103	40-150		
PFOSA	3.90				4.00		97.4	40-150		
NMeFOSA	15.6				16.0		97.5	40-150		
NEtFOSA	16.4				16.0		103	40-150		
NMeFOSAA	4.92				4.00		123	40-150		
NEtFOSAA	3.40				4.00		85.0	40-150		
NMeFOSE	16.8				16.0		105	40-150		
NEtFOSE	16.8				16.0		105	40-150		
HFPO-DA	8.04				8.00		100	40-150		
ADONA	7.69				7.56		102	40-150		
PFEESA	6.19				7.12		87.0	40-150		
PFMPA	7.58				8.00		94.7	40-150		
PFMBA	7.73				8.00		96.6	40-150		
NFDHA	6.32 IR1				8.00		79.0	40-150		
9CL-PF3ONS	7.21				7.48		96.4	40-150		
11CL-PF3OUDS	7.08				7.56		93.7	40-150		
3:3FTCA	14.7 IR1				16.0		91.8	40-150		
5:3FTCA	12.3				16.0		76.8	40-150		
7:3FTCA	14.6				16.0		91.1	40-150		

#### Surrogates

13C4-PFBA	32.4				32.0		101	20-150		
13C5-PFPEA	15.1				16.0		94.5	20-150		
13C5-PFHXA	8.08				8.00		101	20-150		
13C4-PFHPA	7.10				8.00		88.8	20-150		
13C8-PFOA	7.58				8.00		94.7	20-150		

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Reported: 12/22/2022 07:00

### 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: BBL0357 - 1633 (Continued)

##### LCS (BBL0357-BS1)

Prepared: 12/19/22 09:03 Analyzed: 12/20/22 11:21

	ng/L									
<b>Surrogates</b>										
13C9-PFNA	4.21				4.00		105	20-150		
13C6-PFDA	3.83				4.00		95.7	20-150		
13C7-PFUnA	5.27				4.00		132	20-150		
13C2-PFDOA	4.01				4.00		100	20-150		
13C2-PFTEDA	4.97				4.00		124	20-150		
13C3-PFBS	8.63				8.00		108	20-150		
13C3-PFHXS	8.73				8.00		109	20-150		
13C8-PFOS	7.27				8.00		90.9	20-150		
13C2-4:2FTS	19.5				16.0		122	20-150		
13C2-6:2FTS	14.6				16.0		91.2	20-150		
13C2-8:2FTS	16.3				16.0		102	20-150		
13C8-PFOA	6.67				8.00		83.3	20-150		
D5-NETFOA	4.06				8.00		50.7	20-150		
D3-NMEFOA	3.99				8.00		49.9	20-150		
D3-NMEFOA	13.2				16.0		82.3	20-150		
D5-NETFOA	15.0				16.0		93.8	20-150		
D7-NMEFOA	54.9				80.0		68.6	20-150		
D9-NETFOA	50.4				80.0		63.0	20-150		
13C3-HFOA-DA	29.1				32.0		90.9	20-150		

##### MRL Check (BBL0357-MRL1)

Prepared: 12/19/22 09:03 Analyzed: 12/20/22 11:34

	ng/L									
PFBA	1.47 J				1.60		91.7	40-150		
PFPEA	0.797 J				0.800		99.6	40-150		
PFHXA	0.308 J				0.400		77.1	40-150		
PFHPA	0.376 J				0.400		94.1	40-150		
PFOA	0.476				0.400		119	40-150		
PFNA	0.441 IR2				0.400		110	40-150		
PFDA	0.364 J				0.400		91.0	40-150		
PFUnA	0.430				0.400		107	40-150		
PFDOA	0.343 J				0.400		85.7	40-150		
PFTRDA	0.587				0.400		147	40-150		
PFTEDA	0.341 J				0.400		85.4	40-150		
PFBS	0.397 J				0.354		112	40-150		
PFPEA	0.354 J				0.376		94.1	40-150		
PFHXS	0.368 J				0.366		100	40-150		
PFHPS	0.312 J				0.382		81.8	40-150		
PFOS	0.393 J				0.372		106	40-150		
PFNS	0.408				0.384		106	40-150		
PFDS	0.370 J				0.386		95.9	40-150		
PFDOS	0.354 J				0.388		91.3	40-150		
4:2FTS	1.65				1.50		110	40-150		
6:2FTS	1.74				1.52		115	40-150		
8:2FTS	1.28 J				1.54		83.1	40-150		
PFOA	0.482				0.400		120	40-150		

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: 12/22/2022 07:00

### 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: BBL0357 - 1633 (Continued)

##### MRL Check (BBL0357-MRL1)

Prepared: 12/19/22 09:03 Analyzed: 12/20/22 11:34

Analyte	Result/Qual	LOQ	LOD	MDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
	ng/L									
NMeFOSA	1.13 J				1.60		70.7	40-150		
NETFOSA	1.31 J				1.60		81.6	40-150		
NMeFOSAA	0.310 J				0.400		77.5	40-150		
NETFOSAA	0.365 J IR2,				0.400		91.2	40-150		
NMeFOSE	1.40 J				1.60		87.7	40-150		
NETFOSE	1.88				1.60		118	40-150		
HFPO-DA	0.707 J				0.800		88.3	40-150		
ADONA	0.657 J				0.756		86.9	40-150		
PFEESA	0.729 J				0.712		102	40-150		
PFMPA	0.685 J				0.800		85.7	40-150		
PFMBA	0.759 J				0.800		94.9	40-150		
NFDHA	0.140 J BS1, IR1,				0.800		17.5	40-150		
9CL-PF3ONS	0.698 J				0.748		93.3	40-150		
11CL-PF3OUDS	0.520 J				0.756		68.8	40-150		
3:3FTCA	1.68 IR1				1.60		105	40-150		
5:3FTCA	1.50 J				1.60		93.7	40-150		
7:3FTCA	1.30 J				1.60		80.9	40-150		

#### Surrogates

13C4-PFBA	30.8				32.0		96.2	20-150		
13C5-PFPEA	15.1				16.0		94.4	20-150		
13C5-PFHXA	7.47				8.00		93.4	20-150		
13C4-PFHFA	7.69				8.00		96.1	20-150		
13C8-PFOA	7.19				8.00		89.9	20-150		
13C9-PFNA	3.84				4.00		95.9	20-150		
13C6-PFDA	4.02				4.00		101	20-150		
13C7-PFUnA	4.09				4.00		102	20-150		
13C2-PFDOA	3.75				4.00		93.8	20-150		
13C2-PFTEDA	3.77				4.00		94.4	20-150		
13C3-PFBS	7.86				8.00		98.3	20-150		
13C3-PFHXS	8.00				8.00		100	20-150		
13C8-PFOS	7.78				8.00		97.2	20-150		
13C2-4:2FTS	14.9				16.0		93.1	20-150		
13C2-6:2FTS	16.0				16.0		99.9	20-150		
13C2-8:2FTS	16.7				16.0		104	20-150		
13C8-PFOA	7.34				8.00		91.8	20-150		
D5-NETFOA	5.16				8.00		64.5	20-150		
D3-NMEFOA	5.01				8.00		62.6	20-150		
D3-NMEFOSAA	14.4				16.0		89.8	20-150		
D5-NETFOSAA	16.7				16.0		104	20-150		
D7-NMEFOSE	65.0				80.0		81.3	20-150		
D9-NETFOSE	65.5				80.0		81.9	20-150		
13C3-HFPO-DA	32.0				32.0		99.9	20-150		

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: 12/22/2022 07:00

## Notes and Definitions

<b>Item</b>	<b>Definition</b>
B	Blank contamination
BS1	Blank spike recovered below the lower control limit
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
MI5	Manual integration, whole peak was not integrated
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

**22L0083**

Printed: 12/22/2022 7:01 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: 12/13/2022 01:30 PM

Logged In By: Megan Salata

Date Due: 12/20/2022 (5.00 day TAT)

Received By: Megan Salata

Analysis	Comments
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**22L0083-01 AF-HDMW225303-WGN01B-2212W2 [Water] Sampled 12/12/2022 2:30:00PM**

1633 NONE "Report relevant surrogates"

**22L0083-02 AF-RHMW03-WGN01LF-2212W2 [Water] Sampled 12/12/2022 3:45:00PM**

1633 NONE "Report relevant surrogates"

**22L0083-03 AF-RHMW02-WGN01LF-2212W2 [Water] Sampled 12/12/2022 1:00:00PM**

1633 NONE "Report relevant surrogates"

**22L0083 Sample Receipt Log**

Default Cooler

Samples Received at: **2.9°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







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

**ELECTRONIC CHAIN OF CUSTODY RECORD**  
 Phone: (559) 275-2175  
 Fax: (559) 275-4422  
 coc@applinc.com C.O.C. 2212W2AP-075 <sup>END</sup>

PLEASE PRINT

Report to: **AECOM**  
 Company Name: **1001 Bishop St ste 1600**  
 Address: **Honolulu, HI 96813**  
 Attn: **Watson Tanji / Brant Landers**  
 Email: **watson.tanji@aecom.com/brant.landlers@aecom.com**  
 808-954-4512 / 808-356-5311  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_

PLEASE PRINT

Invoice to:  
 Company Name: **AECOM**  
 Address: \_\_\_\_\_  
 Attn: **Sheree Smith**  
 Email: **USAPimaging@aecom.com**  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_

Project Name/Number  
 CTO N6274223F0104 / 60697810  
 Sampler (Print)  
*Andy Young*  
 Sampler (Signature)  
*[Signature]*

Analysis Requested/Method Number  
 PFAS EPA Draft 1633  
 Date Shipped: \_\_\_\_\_  
 Carrier: \_\_\_\_\_  
 Waybill No.: \_\_\_\_\_  
 Comments: \_\_\_\_\_

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix	Analysis Requested/Method Number
AF-RHMW03-WGN01LF-2212W2	RHMW03	12/12/22	1545	HST	2	Aq <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
						Soil <input type="checkbox"/>	
						Sed. <input type="checkbox"/>	
						Other <input type="checkbox"/>	

Store ALL samples until notified by client to dispose

Turnaround Requested: Check one  
 Standard 2-3 wk  One week  3 days  24/48 Hrs.  Other: \_\_\_\_\_  
 Relinquished by sampler: *Andy Young*  
 Relinquished by: \_\_\_\_\_  
 Date: 12/12/22 1707  
 Date: 12/12/22 1300

Sample Disposal:  
 Return to client  Disposal by Lab (30-day retention)  
 Received by: \_\_\_\_\_  
 Date: 12/12/22 1707  
 Received at lab by: \_\_\_\_\_  
 Date: 12/12/22 1300

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

**ELECTRONIC CHAIN OF CUSTODY RECORD**  
 Phone: (559) 275-2175  
 Fax: (559) 275-4422  
 coc@applinc.com C.O.C. 2212W2AP-024 MD

Report to: **AECOM** Invoice to: **AECOM** PLEASE PRINT  
 Company Name: **1001 Bishop St ste1600** Phone: \_\_\_\_\_  
 Address: **Honolulu, HI 96813** Fax: \_\_\_\_\_  
**Watson Tanji / Brant Landers**  
 Attn: **watson.tanji@aecom.com/brant.landere@aecom.com**  
 Email: \_\_\_\_\_  
 Attn: **Sheree Smith**  
 Email: **USAPimaging@aecom.com**

Sample Identification	Project Name/Number	Purchase Order Number	Turnaround Requested:			Sampler (Print) Sampler (Signature)	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix			Analysis Requested/Method Number			Date Shipped:	Carrier:	Waybill No.:	Comments:
			Standard 2-3 wk	One week	3 days							24/48 Hrs.	Aq	Sed.	Soil	PFAS EPA Draft 1639					
AF-RHMW02-WGN01LF-2212W2	CTO N6274223F0104 / 60697810		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Andy Young	RHMW002	12/12/22	1300	HST	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>						Store ALL samples until notified by client to dispose	
						<i>ASJ</i>															

Turnaround Requested: Check one  
 Standard 2-3 wk  One week  3 days  24/48 Hrs.  Other: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Received by: \_\_\_\_\_  
 Date: 12/12/22 Time: 17:07 Date: 12/12/22 Time: 17:07  
 Relinquished by: \_\_\_\_\_ Received by: \_\_\_\_\_  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_ Date: 12-13-2017 Time: 13:00  
 Relinquished by: \_\_\_\_\_ Received by: \_\_\_\_\_

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

**CUSTODY SEAL**  
AECOM (808) 521-3051  
Initials   *JS*   Date   *12/29*   /2022

# PFAS

# SAMPLE DATA

# FORM I

## ANALYSIS DATA SHEET

AF-HDMW225303-WGN01B-2212W2

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	22L0083-01
		File ID:	S2022-12-14A (51)
Sampled:	12/12/22 14:30	Prepared:	12/14/22 11:09
		Analyzed:	12/14/22 21:56
Solids:		Preparation:	1633
		Dilution:	1
Initial/Final:	49.07 g / 2 ml	Instrument:	Saphira
Batch:	BBL0300	Sequence:	SB03835
		Calibration:	2251013

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
PFBA	8.2 U	16	8.2	2.1	
PFPEA	4.1 U	8.2	4.1	0.66	
PFHXA	2.0 U	4.1	2.0	0.56	
PFHPA	2.0 U	4.1	2.0	0.42	
PFOA	1.7 J	4.1	2.0	1.6	
PFNA	2.0 U	4.1	2.0	0.83	
PFDA	2.0 U	4.1	2.0	1.0	
PFUnA	2.0 U	4.1	2.0	1.6	
PFDOA	2.0 U	4.1	2.0	1.1	
PFTRDA	3.1 U	4.1	3.1	2.1	
PFTEDA	2.0 U	4.1	2.0	2.0	
PFBS	2.0 U	4.1	2.0	0.37	
PFPEs	2.0 U	4.1	2.0	0.64	
PFHXS	0.65 J	4.1	2.0	0.32	
PFHPS	2.0 U	4.1	2.0	0.52	
PFNS	2.0 U	4.1	2.0	1.3	
PFDS	2.0 U	4.1	2.0	1.5	
PFDOS	2.0 U	4.1	2.0	1.3	
4:2FTS	8.2 U	16	8.2	3.0	
6:2FTS	7.1 J	16	8.2	3.2	
8:2FTS	8.2 U	16	8.2	0.84	
PFOSA	2.0 U	4.1	2.0	1.1	
NMeFOSA	8.2 U	16	8.2	4.8	
NEtFOSA	8.2 U	16	8.2	4.2	
NMeFOSAA	2.0 U	4.1	2.0	1.1	
NEtFOSAA	2.0 U	4.1	2.0	1.2	
NMeFOSE	12 U	16	12	10	
NEtFOSE	12 U	16	12	11	
HFPO-DA	4.1 U	8.2	4.1	1.8	
ADONA	4.1 U	8.2	4.1	1.3	

# FORM I ANALYSIS DATA SHEET

AF-HDMW225303-WGN01B-2212W2

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	22L0083-01
		File ID:	S2022-12-14A (51)
Sampled:	12/12/22 14:30	Prepared:	12/14/22 11:09
		Analyzed:	12/14/22 21:56
Solids:		Preparation:	1633
		Dilution:	1
Initial/Final:	49.07 g / 2 ml	Instrument:	Saphira
Batch:	BBL0300	Sequence:	SB03835
		Calibration:	2251013

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
PFEESA	4.1 U	8.2	4.1	1.1	
PFMPA	4.1 U	8.2	4.1	0.55	
PFMBA	4.1 U	8.2	4.1	0.92	
NFDHA	4.1 U	8.2	4.1	3.1	
9CL-PF3ONS	4.1 U	8.2	4.1	2.1	
11CL-PF3OUDS	4.1 U	8.2	4.1	2.1	
3:3FTCA	8.2 U	16	8.2	5.9	
5:3FTCA	8.2 U	16	8.2	4.5	
7:3FTCA	8.2 U	16	8.2	5.6	





Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0083-01  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (51)  
 Acquired: 2022/12/14 - 21:56

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(212.9 / 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	(262.9 / 219.0) N/A (262.9 / 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) 6263 (413.0 / 169.0) 1631	(7.90, 1.00) (0.00, N/A, -0.3)	28.5 42.4	0.2604 77.6 89.4	0.0419	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			
PFTrDA	(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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0083-01  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (51)  
 Acquired: 2022/12/14 - 21:56

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	(298.9 / 80.0) N/A (298.9 / 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) 5175 (399.0 / 99.0) 1545	(8.04, 1.00) (0.01, N/A, -0.6)	2554.8 106078.5	0.2985 92.5 86.3	0.0159	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) 218518 (499.0 / 99.0) 57775	(9.47, 1.00) (0.00, N/A, -0.3)	157.4 185.4	0.2644 115.2 103.7	0.5679	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	(698.9 / 80.0) N/A (698.9 / 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) 7607 (427.0 / 81.0) 5018	(7.55, 1.00) (0.00, N/A, 0.7)	73.9 72.6	0.6596 101.5 88.9	0.1741	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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0083-01  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (51)  
 Acquired: 2022/12/14 - 21:56

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 4581 (498.0 / 478.0) 301	(10.17, 1.00) (0.00, N/A, -1.1)	25523.9 339.7	0.0656 288.3 237.5	0.0104	N/A			
NMeFOSA	(511.9 / 219.0) N/A (511.9 / 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) 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	(616.1 / 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			
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			

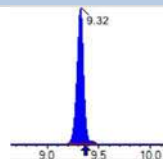
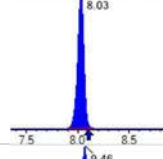
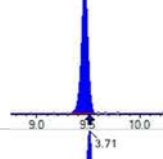
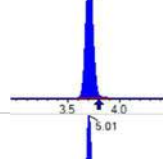
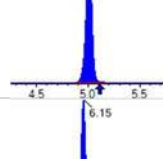
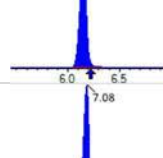
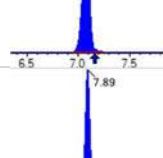
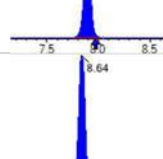
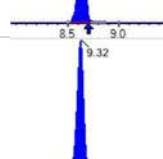
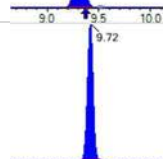
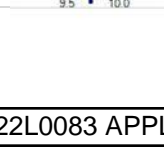


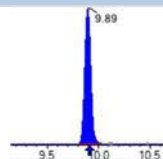
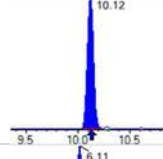
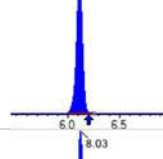
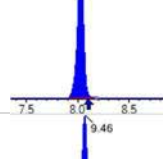
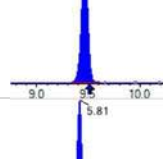
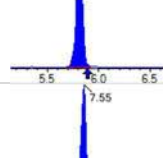
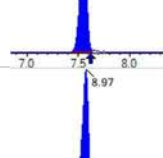
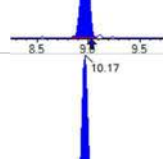
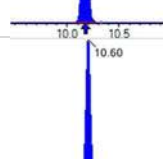
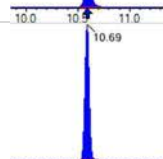
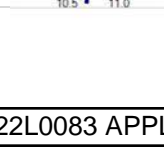
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

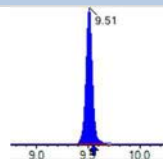
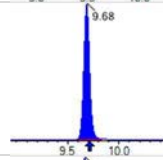
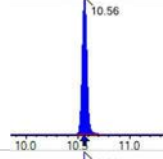
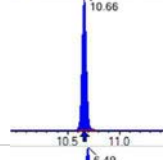
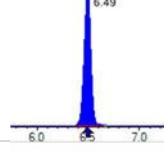
Sample I.D.: 22L0083-01  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (51)  
 Acquired: 2022/12/14 - 21:56

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(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) 83819	(3.71, N/A) (N/A, -0.01, N/A)	771.6	N/A	0.6908 [ 1.0000 ]	69.1% { 87.1% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 136789	(6.15, N/A) (N/A, -0.03, N/A)	517.4	N/A	0.7496 [ 1.0000 ]	75.0% { 78.1% }			
13C4_PFOA_IIS	(417.0 / 372.0) 132849	(7.90, N/A) (N/A, -0.02, N/A)	581.7	N/A	0.7610 [ 1.0000 ]	76.1% { 91.6% }			
13C5_PFNA_IIS	(468.0 / 423.0) 115608	(8.64, N/A) (N/A, -0.03, N/A)	427.1	N/A	0.8508 [ 1.0000 ]	85.1% { 98.6% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 109848	(9.32, N/A) (N/A, -0.02, N/A)	1968.7	N/A	0.7917 [ 1.0000 ]	79.2% { 83.9% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 244219	(8.03, N/A) (N/A, -0.03, N/A)	699.2	N/A	0.7567 [ 1.0000 ]	75.7% { 86.2% }			
13C4_PFOS_IIS	(502.8 / 79.9) 228172	(9.46, N/A) (N/A, -0.03, N/A)	374.8	N/A	0.9061 [ 1.0000 ]	90.6% { 89.6% }			
13C4_PFBA_EIS	(217.0 / 172.0) 694832	(3.71, N/A) (N/A, -0.01, N/A)	940.1	N/A	10.8751 [ 8.0000 ]	135.9% { 108.5% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 386407	(5.01, N/A) (N/A, -0.02, N/A)	790.2	N/A	5.1010 [ 4.0000 ]	127.5% { 118.3% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 315761	(6.15, N/A) (N/A, -0.02, N/A)	788.1	N/A	2.7391 [ 2.0000 ]	137.0% { 114.1% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 246459	(7.08, N/A) (N/A, -0.03, N/A)	615.1	N/A	2.4628 [ 2.0000 ]	123.1% { 106.0% }			
13C8_PFOA_EIS	(421.0 / 376.0) 299494	(7.89, N/A) (N/A, -0.03, N/A)	788.3	N/A	2.9400 [ 2.0000 ]	147.0% { 129.2% }			
13C9_PFNA_EIS	(472.0 / 427.0) 106904	(8.64, N/A) (N/A, -0.02, N/A)	396.9	N/A	1.2002 [ 1.0000 ]	120.0% { 103.9% }			
13C6_PFDA_EIS	(519.0 / 474.0) 154707	(9.32, N/A) (N/A, -0.03, N/A)	430.5	N/A	1.4685 [ 1.0000 ]	146.8% { 126.7% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 199716	(9.72, N/A) (N/A, -0.01, N/A)	394.0	N/A	1.3803 [ 1.0000 ]	138.0% { 114.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 230459	(9.89, N/A) (N/A, -0.01, N/A)	390.3	N/A	1.2952 [ 1.0000 ]	129.5% { 110.2% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 135281	(10.12, N/A) (N/A, -0.01, N/A)	350.9	N/A	1.2108 [ 1.0000 ]	121.1% { 100.3% }			
13C3_PFBs_EIS	(302.0 / 80.0) 754292	(6.11, N/A) (N/A, -0.03, N/A)	857.2	N/A	2.6843 [ 2.0000 ]	134.2% { 110.9% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 406511	(8.03, N/A) (N/A, -0.03, N/A)	757.2	N/A	2.5706 [ 2.0000 ]	128.5% { 107.7% }			
13C8_PFOS_EIS	(507.0 / 80.0) 699905	(9.46, N/A) (N/A, -0.03, N/A)	443.8	N/A	2.4637 [ 2.0000 ]	123.2% { 117.6% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 86600	(5.81, N/A) (N/A, -0.02, N/A)	472.1	N/A	5.2730 [ 4.0000 ]	131.8% { 115.7% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 107223	(7.55, N/A) (N/A, -0.02, N/A)	663.3	N/A	5.3396 [ 4.0000 ]	133.5% { 106.2% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 98383	(8.97, N/A) (N/A, -0.03, N/A)	308.3	N/A	4.9107 [ 4.0000 ]	122.8% { 101.4% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 897891	(10.17, N/A) (N/A, 0.00, N/A)	962.3	N/A	2.0895 [ 2.0000 ]	104.5% { 101.7% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 195669	(10.60, N/A) (N/A, 0.00, N/A)	732.8	N/A	1.7739 [ 2.0000 ]	88.7% { 83.7% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 165471	(10.69, N/A) (N/A, 0.00, N/A)	875.6	N/A	1.7291 [ 2.0000 ]	86.5% { 87.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 322928	(9.51, N/A) (N/A, -0.02, N/A)	401.8	N/A	4.8026 [ 4.0000 ]	120.1% { 127.2% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 357206	(9.68, N/A) (N/A, -0.01, N/A)	483.4	N/A	5.8710 [ 4.0000 ]	146.8% { 145.4% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 377253	(10.56, N/A) (N/A, 0.00, N/A)	780.0	N/A	17.8402 [ 20.0000 ]	89.2% { 92.9% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 203120	(10.66, N/A) (N/A, 0.00, N/A)	1467.1	N/A	19.1697 [ 20.0000 ]	95.8% { 93.1% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 739198	(6.49, N/A) (N/A, -0.03, N/A)	1092.9	N/A	10.4682 [ 8.0000 ]	130.9% { 111.2% }			

# FORM I ANALYSIS DATA SHEET

AF-HDMW225303-WGN01B-2212W2

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	22L0083-01RE2
		File ID:	S2022-12-20A (9)
Sampled:	12/12/22 14:30	Prepared:	12/19/22 09:03
		Analyzed:	12/20/22 11:47
Solids:		Preparation:	1633
		Dilution:	1
Initial/Final:	48.36 g / 2 ml	Instrument:	Saphira
Batch:	BBL0357	Sequence:	SB03903
		Calibration:	2251019

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
PFOS	2.1 U	4.1	2.1	0.66	





Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0083-01RE2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (9)  
 Acquired: 2022/12/20 - 11:47

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	(212.9 / 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	(262.9 / 219.0) N/A (262.9 / 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) 4457 (413.0 / 169.0) 1739	( 7.90 , 1.00 ) ( 0.00 , N/A , 0.5 )	16.6 43.4	0.3901 115.8 119.5	0.0328	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			
PFTrDA	(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			



Chemist: ABK  
Instrument: Saphira  
Type: Sciex Q3 5500

Sample I.D.: 22L0083-01RE2  
DF, IV: 1, 10.0µL  
Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
Path: S2022-12-20A (9)  
Acquired: 2022/12/20 - 11:47

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(298.9 / 80.0) N/A (298.9 / 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) 7621 (499.0 / 99.0) 1707	(9.47, 1.00) (0.01, N/A, 1.6)	8.9 31.3	0.2239 98.0 98.5	0.0159	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	(698.9 / 80.0) N/A (698.9 / 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) 8168 (427.0 / 81.0) 4401	(7.56, 1.00) (0.00, N/A, 0.6)	92.8 39.2	0.5389 75.2 81.5	0.1926	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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0083-01RE2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (9)  
 Acquired: 2022/12/20 - 11:47

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 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	(511.9 / 219.0) N/A (511.9 / 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) 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	(616.1 / 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			

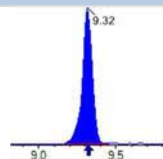
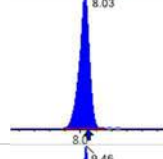
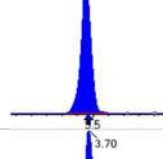
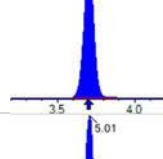
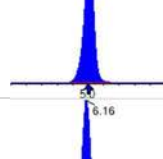
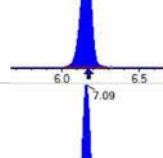
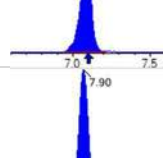
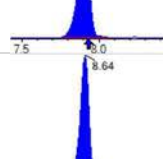
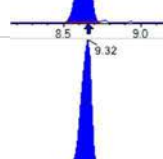
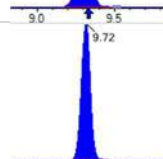
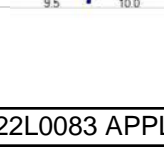


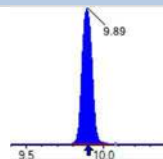
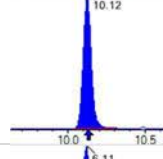
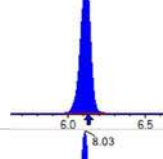
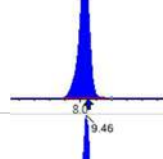
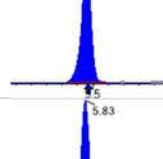
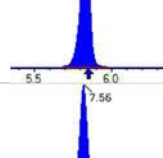
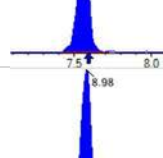
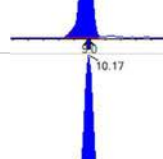
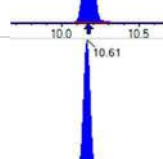
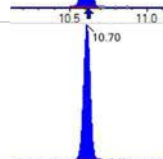
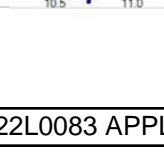
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

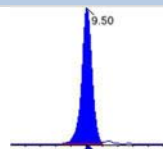
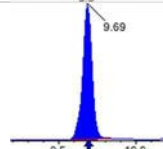
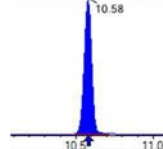
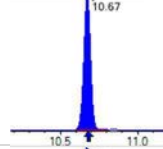
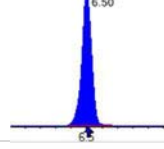
Sample I.D.: 22L0083-01RE2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (9)  
 Acquired: 2022/12/20 - 11:47

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(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) 96192	(3.71, N/A) (N/A, 0.01, N/A)	735.4	N/A	1.1002 [ 1.0000 ]	110.0% { 134.0% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 147240	(6.16, N/A) (N/A, -0.01, N/A)	509.7	N/A	1.1191 [ 1.0000 ]	111.9% { 126.0% }			
13C4_PFOA_IIS	(417.0 / 372.0) 144921	(7.90, N/A) (N/A, -0.03, N/A)	635.9	N/A	1.1578 [ 1.0000 ]	115.8% { 143.6% }			
13C5_PFNA_IIS	(468.0 / 423.0) 102599	(8.64, N/A) (N/A, -0.01, N/A)	269.7	N/A	1.0279 [ 1.0000 ]	102.8% { 105.6% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 112045	(9.32, N/A) (N/A, -0.01, N/A)	287.5	N/A	1.0804 [ 1.0000 ]	108.0% { 163.6% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 257608	(8.03, N/A) (N/A, -0.02, N/A)	743.6	N/A	1.0889 [ 1.0000 ]	108.9% { 122.0% }			
13C4_PFOS_IIS	(502.8 / 79.9) 279879	(9.46, N/A) (N/A, -0.01, N/A)	467.5	N/A	1.3951 [ 1.0000 ]	139.5% { 175.9% }			
13C4_PFBA_EIS	(217.0 / 172.0) 769325	(3.70, N/A) (N/A, 0.01, N/A)	987.8	N/A	7.7249 [ 8.0000 ]	96.6% { 135.2% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 434474	(5.01, N/A) (N/A, 0.00, N/A)	738.1	N/A	4.0080 [ 4.0000 ]	100.2% { 133.7% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 334126	(6.16, N/A) (N/A, -0.01, N/A)	500.8	N/A	1.9277 [ 2.0000 ]	96.4% { 140.0% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 283087	(7.09, N/A) (N/A, -0.01, N/A)	523.1	N/A	1.8486 [ 2.0000 ]	92.4% { 128.0% }			
13C8_PFOA_EIS	(421.0 / 376.0) 286388	(7.90, N/A) (N/A, -0.03, N/A)	580.1	N/A	1.7884 [ 2.0000 ]	89.4% { 124.7% }			
13C9_PFNA_EIS	(472.0 / 427.0) 110596	(8.64, N/A) (N/A, -0.02, N/A)	282.3	N/A	0.9868 [ 1.0000 ]	98.7% { 134.7% }			
13C6_PFDA_EIS	(519.0 / 474.0) 162864	(9.32, N/A) (N/A, -0.01, N/A)	296.6	N/A	1.0727 [ 1.0000 ]	107.3% { 150.7% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 224915	(9.72, N/A) (N/A, -0.01, N/A)	577.1	N/A	1.0289 [ 1.0000 ]	102.9% { 148.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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) 241885	(9.89, N/A) (N/A, -0.01, N/A)	593.4	N/A	0.9811 [ 1.0000 ]	98.1% { 132.8% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 147808	(10.12, N/A) (N/A, -0.01, N/A)	383.1	N/A	0.9865 [ 1.0000 ]	98.6% { 131.2% }			
13C3_PFBs_EIS	(302.0 / 80.0) 920862	(6.11, N/A) (N/A, -0.01, N/A)	884.9	N/A	2.1887 [ 2.0000 ]	109.4% { 139.2% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 441674	(8.03, N/A) (N/A, -0.02, N/A)	827.7	N/A	2.0243 [ 2.0000 ]	101.2% { 128.6% }			
13C8_PFOS_EIS	(507.0 / 80.0) 873682	(9.46, N/A) (N/A, -0.01, N/A)	432.2	N/A	1.9003 [ 2.0000 ]	95.0% { 158.9% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 113510	(5.83, N/A) (N/A, -0.01, N/A)	648.0	N/A	4.7847 [ 4.0000 ]	119.6% { 134.7% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 109879	(7.56, N/A) (N/A, -0.03, N/A)	538.0	N/A	3.6141 [ 4.0000 ]	90.4% { 123.6% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 126323	(8.98, N/A) (N/A, -0.01, N/A)	254.6	N/A	4.6346 [ 4.0000 ]	115.9% { 143.6% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 659972	(10.17, N/A) (N/A, 0.00, N/A)	709.5	N/A	0.9864 [ 2.0000 ]	49.3% { 79.1% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 114661	(10.61, N/A) (N/A, -0.01, N/A)	567.9	N/A	0.6879 [ 2.0000 ]	34.4% { 56.3% }			
D5_NEtFOSA_EIS	(531.1 / 169.0) 89628	(10.70, N/A) (N/A, 0.00, N/A)	655.3	N/A	0.5758 [ 2.0000 ]	28.8% { 48.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 318959	(9.50, N/A) (N/A, -0.01, N/A)	411.4	N/A	2.9575 [ 4.0000 ]	73.9% { 135.4% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 347204	(9.69, N/A) (N/A, 0.00, N/A)	279.1	N/A	3.8737 [ 4.0000 ]	96.8% { 155.2% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 282203	(10.58, N/A) (N/A, 0.00, N/A)	754.1	N/A	8.8013 [ 20.0000 ]	44.0% { 82.5% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 154634	(10.67, N/A) (N/A, 0.00, N/A)	947.5	N/A	8.9558 [ 20.0000 ]	44.8% { 77.9% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 780101	(6.50, N/A) (N/A, -0.01, N/A)	807.4	N/A	7.3920 [ 8.0000 ]	92.4% { 119.3% }			

# FORM I ANALYSIS DATA SHEET

AF-RHMW03-WGN01LF-2212W2

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	22L0083-02
		File ID:	S2022-12-14A (44)
Sampled:	12/12/22 15:45	Prepared:	12/14/22 08:54
		Analyzed:	12/14/22 20:27
Solids:		Preparation:	1633
		Dilution:	1
Initial/Final:	573.21 g / 2 ml	Instrument:	Saphira
Batch:	BBL0295	Sequence:	SB03835
		Calibration:	2251013

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
PFBA	2.8	1.4	0.70	0.18	
PFPEA	3.8	0.70	0.35	0.057	
PFHXA	1.5	0.35	0.17	0.048	
PFHPA	0.87	0.35	0.17	0.036	
PFOA	0.30 J	0.35	0.17	0.13	
PFNA	0.17 J	0.35	0.17	0.071	
PFDA	0.16 J	0.35	0.17	0.088	
PFUnA	0.15 J	0.35	0.17	0.14	IR2,
PFDOA	0.17 U	0.35	0.17	0.098	
PFTRDA	0.26 U	0.35	0.26	0.18	
PFTEDA	0.17 U	0.35	0.17	0.17	
PFBS	0.17 U	0.35	0.17	0.032	
PFPEs	0.17 U	0.35	0.17	0.055	
PFHXS	0.067 J	0.35	0.17	0.028	
PFHPS	0.17 U	0.35	0.17	0.045	
PFNS	0.17 U	0.35	0.17	0.11	
PFDS	0.17 U	0.35	0.17	0.13	
PFDOS	0.17 U	0.35	0.17	0.11	
4:2FTS	0.70 U	1.4	0.70	0.25	
8:2FTS	0.70 U	1.4	0.70	0.072	
PFOSA	0.17 U	0.35	0.17	0.091	
NMeFOSA	0.70 U	1.4	0.70	0.41	
NEtFOSA	0.70 U	1.4	0.70	0.36	
NMeFOSAA	0.17 U	0.35	0.17	0.092	
NEtFOSAA	0.17 U	0.35	0.17	0.10	
NMeFOSE	1.0 U	1.4	1.0	0.88	
NEtFOSE	1.0 U	1.4	1.0	0.91	
HFPO-DA	0.35 U	0.70	0.35	0.15	
ADONA	0.35 U	0.70	0.35	0.11	
PFEESA	0.35 U	0.70	0.35	0.095	



# FORM I ANALYSIS DATA SHEET

AF-RHMW03-WGN01LF-2212W2

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	22L0083-02
		File ID:	S2022-12-14A (44)
Sampled:	12/12/22 15:45	Prepared:	12/14/22 08:54
		Analyzed:	12/14/22 20:27
Solids:		Preparation:	1633
		Dilution:	1
Initial/Final:	573.21 g / 2 ml	Instrument:	Saphira
Batch:	BBL0295	Sequence:	SB03835
		Calibration:	2251013

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
PFMPA	0.35 U	0.70	0.35	0.047	
PFMBA	0.35 U	0.70	0.35	0.079	
NFDHA	0.35 U	0.70	0.35	0.26	
9CL-PF3ONS	0.35 U	0.70	0.35	0.18	
11CL-PF3OUDS	0.35 U	0.70	0.35	0.18	
3:3FTCA	0.70 U	1.4	0.70	0.50	
5:3FTCA	0.70 U	1.4	0.70	0.39	
7:3FTCA	0.70 U	1.4	0.70	0.48	

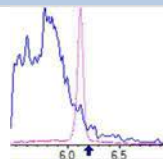
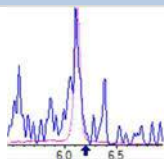
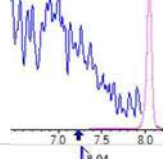
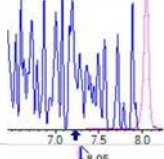
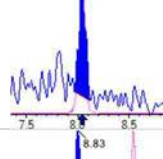
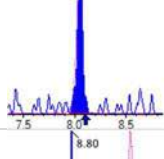
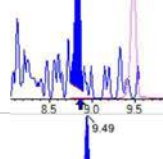
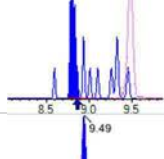
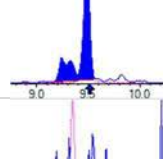
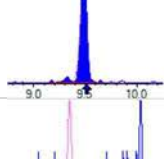
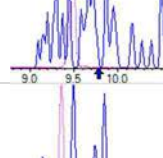
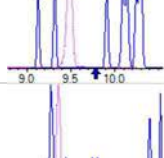
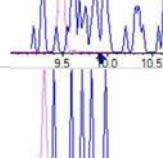
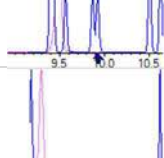
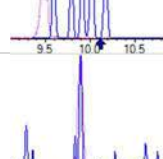
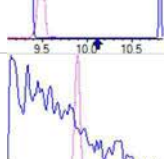
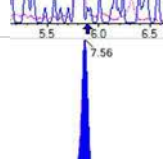
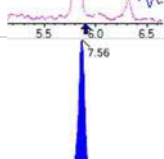
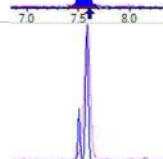
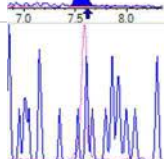
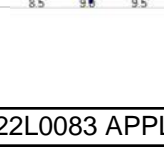
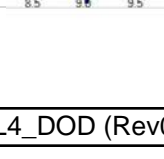


Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0083-02  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (44)  
 Acquired: 2022/12/14 - 20:27

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	(212.9 / 169.0) 32667	(3.71, 1.00) (0.00, N/A, 0.0)	50.4	N/A 0.0 0.0	0.8038	N/A			
PFPeA	(262.9 / 219.0) 88237 (262.9 / 69.0) 1453	(5.01, 1.00) (0.00, N/A, -0.1)	310.8 20.0	0.0165 131.1 140.2	1.1017	N/A			
PFHxA	(313.0 / 269.0) 65982 (313.0 / 119.0) 5600	(6.16, 1.00) (0.01, N/A, -0.4)	73.1 34.9	0.0849 91.7 79.7	0.4217	N/A			
PFHpA	(363.0 / 319.0) 33908 (363.0 / 169.0) 10848	(7.09, 1.00) (0.00, N/A, 0.3)	68.2 130.6	0.3199 102.8 98.8	0.2484	N/A			
PFOA	(413.0 / 369.0) 14331 (413.0 / 169.0) 4477	(7.91, 1.00) (0.00, N/A, -1.0)	38.5 65.7	0.3124 93.1 107.2	0.0867	N/A			
PFNA	(463.0 / 419.0) 5922 (463.0 / 169.0) 1385	(8.65, 1.00) (-0.01, N/A, 1.4)	17.5 44.2	0.2338 133.2 114.6	0.0475	N/A			
PFDA	(513.0 / 469.0) 8163 (513.0 / 169.0) 796	(9.34, 1.00) (0.00, N/A, 0.8)	52.7 23.6	0.0975 96.9 74.4	0.0450	N/A			
PFUnA	(563.0 / 519.0) 11286 (563.0 / 169.0) 1587	(9.72, 1.00) (0.00, N/A, -0.5)	33.1 14650.2	0.1406 153.7 162.0	0.0431	N/A			IR2,
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			
PFTrDA	(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.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(298.9 / 80.0) N/A (298.9 / 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) 7231 (399.0 / 99.0) 3090	(8.04, 1.00) (0.00, N/A, -0.6)	24.0 32.0	0.4274 132.5 123.6	0.0193	N/A			
PFHpS	(449.0 / 80.0) 4267 (449.0 / 99.0) 1873	(8.83, 0.93) (N/A, 0.00, 2.0)	11.8 18.8	0.4391 143.0 146.9	0.0114	N/A			
PFOS	(499.0 / 80.0) 202547 (499.0 / 99.0) 53483	(9.49, 1.00) (0.00, N/A, 0.0)	88.2 563.8	0.2641 115.1 103.5	0.4459	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	(698.9 / 80.0) N/A (698.9 / 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) 103014 (427.0 / 81.0) 67981	(7.56, 1.00) (0.00, N/A, 0.0)	446.9 157.5	0.6599 101.6 88.9	1.7907	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.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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 ) 5691 ( 498.0 / 478.0 ) 906	( 10.18 , 1.00 ) ( 0.00 , N/A , 0.0 )	45.9 676.3	0.1591 699.1 575.8	0.0119	N/A			
NMeFOSA	( 511.9 / 219.0 ) N/A ( 511.9 / 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 ) 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	( 616.1 / 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			
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			

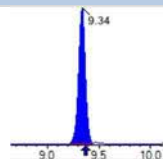
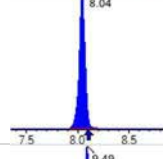
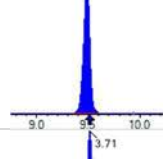
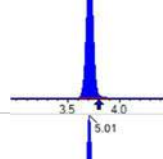
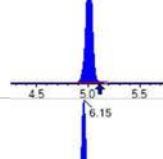
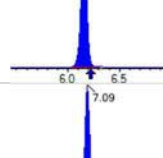
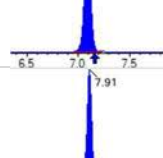
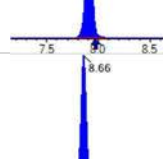
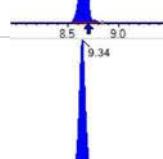
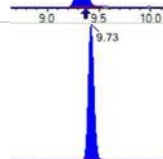
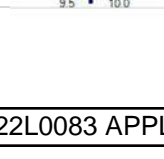


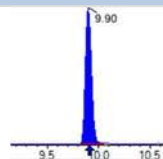
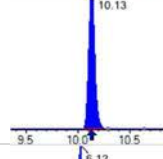
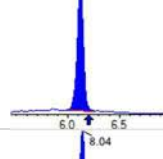
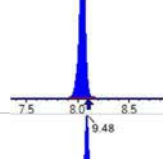
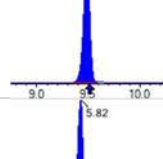
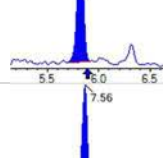
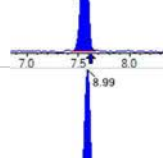
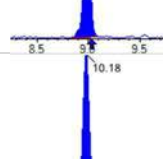
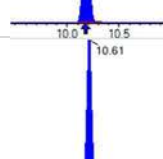
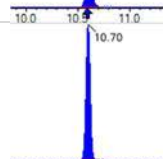
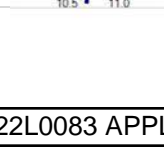
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0083-02  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (44)  
 Acquired: 2022/12/14 - 20:27

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	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(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) 69020	(3.71, N/A) (N/A, 0.00, N/A)	632.7	N/A	0.5688 [ 1.0000 ]	56.9% { 71.7% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 157408	(6.16, N/A) (N/A, -0.02, N/A)	611.5	N/A	0.8626 [ 1.0000 ]	86.3% { 89.8% }			
13C4_PFOA_IIS	(417.0 / 372.0) 161007	(7.91, N/A) (N/A, -0.01, N/A)	585.8	N/A	0.9223 [ 1.0000 ]	92.2% { 111.1% }			
13C5_PFNA_IIS	(468.0 / 423.0) 142295	(8.66, N/A) (N/A, -0.01, N/A)	444.7	N/A	1.0472 [ 1.0000 ]	104.7% { 121.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 147353	(9.34, N/A) (N/A, -0.01, N/A)	400.5	N/A	1.0620 [ 1.0000 ]	106.2% { 112.5% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 277543	(8.04, N/A) (N/A, -0.02, N/A)	797.5	N/A	0.8600 [ 1.0000 ]	86.0% { 98.0% }			
13C4_PFOS_IIS	(502.8 / 79.9) 276007	(9.49, N/A) (N/A, -0.01, N/A)	519.6	N/A	1.0960 [ 1.0000 ]	109.6% { 108.4% }			
13C4_PFBA_EIS	(217.0 / 172.0) 462843	(3.71, N/A) (N/A, 0.00, N/A)	921.6	N/A	8.7974 [ 8.0000 ]	110.0% { 72.3% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 360907	(5.01, N/A) (N/A, -0.02, N/A)	714.9	N/A	4.1403 [ 4.0000 ]	103.5% { 110.5% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 353152	(6.15, N/A) (N/A, -0.02, N/A)	659.4	N/A	2.6621 [ 2.0000 ]	133.1% { 127.6% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 294959	(7.09, N/A) (N/A, -0.02, N/A)	686.5	N/A	2.5614 [ 2.0000 ]	128.1% { 126.9% }			
13C8_PFOA_EIS	(421.0 / 376.0) 330957	(7.91, N/A) (N/A, -0.01, N/A)	713.9	N/A	2.6807 [ 2.0000 ]	134.0% { 142.8% }			
13C9_PFNA_EIS	(472.0 / 427.0) 136711	(8.66, N/A) (N/A, -0.01, N/A)	431.4	N/A	1.2470 [ 1.0000 ]	124.7% { 132.9% }			
13C6_PFDA_EIS	(519.0 / 474.0) 179550	(9.34, N/A) (N/A, -0.01, N/A)	301.0	N/A	1.2705 [ 1.0000 ]	127.1% { 147.1% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 301906	(9.73, N/A) (N/A, 0.00, N/A)	379.3	N/A	1.5555 [ 1.0000 ]	155.5% { 172.8% }			S2,

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 258564	(9.90, N/A) (N/A, 0.00, N/A)	736.3	N/A	1.0833 [ 1.0000 ]	108.3% { 123.6% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 135696	(10.13, N/A) (N/A, 0.00, N/A)	475.1	N/A	0.9054 [ 1.0000 ]	90.5% { 100.6% }			
13C3_PFBs_EIS	(302.0 / 80.0) 822007	(6.12, N/A) (N/A, -0.02, N/A)	285.0	N/A	2.5740 [ 2.0000 ]	128.7% { 120.9% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 466663	(8.04, N/A) (N/A, -0.01, N/A)	866.4	N/A	2.5966 [ 2.0000 ]	129.8% { 123.6% }			
13C8_PFOS_EIS	(507.0 / 80.0) 826279	(9.48, N/A) (N/A, -0.01, N/A)	437.4	N/A	2.4045 [ 2.0000 ]	120.2% { 138.8% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 150350	(5.82, N/A) (N/A, -0.01, N/A)	114.6	N/A	8.0554 [ 4.0000 ]	201.4% { 200.9% }			S2,
13C2_6:2FTS_EIS	(429.0 / 81.0) 141173	(7.56, N/A) (N/A, -0.01, N/A)	290.5	N/A	6.1861 [ 4.0000 ]	154.7% { 139.9% }			S2,
13C2_8:2FTS_EIS	(529.0 / 81.0) 126719	(8.99, N/A) (N/A, -0.01, N/A)	232.5	N/A	5.5657 [ 4.0000 ]	139.1% { 130.6% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 973954	(10.18, N/A) (N/A, 0.01, N/A)	938.4	N/A	1.8737 [ 2.0000 ]	93.7% { 110.3% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 188701	(10.61, N/A) (N/A, 0.01, N/A)	852.7	N/A	1.4143 [ 2.0000 ]	70.7% { 80.7% }			
D5_NEiFOsa_EIS	(531.1 / 169.0) 179689	(10.70, N/A) (N/A, 0.01, N/A)	1021.9	N/A	1.5522 [ 2.0000 ]	77.6% { 94.9% }			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0083-02  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (44)  
 Acquired: 2022/12/14 - 20:27

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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) 506347	(9.52, N/A) (N/A, -0.01, N/A)	516.3	N/A	6.2253 [ 4.0000 ]	155.6% { 199.5% }			S2,
D5_EtFOSAA_EIS	(589.0 / 419.0) 436924	(9.70, N/A) (N/A, 0.00, N/A)	364.2	N/A	5.9367 [ 4.0000 ]	148.4% { 177.9% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 410418	(10.57, N/A) (N/A, 0.01, N/A)	1046.2	N/A	16.0449 [ 20.0000 ]	80.2% { 101.1% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 218956	(10.67, N/A) (N/A, 0.01, N/A)	1062.6	N/A	17.0829 [ 20.0000 ]	85.4% { 100.3% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 760806	(6.51, N/A) (N/A, -0.02, N/A)	1089.8	N/A	9.3629 [ 8.0000 ]	117.0% { 114.5% }			



# FORM I

## ANALYSIS DATA SHEET

AF-RHMW03-WGN01LF-2212W2

Laboratory:	APPL, LLC	Work Order:	22L0083		
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling		
Matrix:	Water	Laboratory ID:	22L0083-02RE1	File ID:	S2022-12-14A (45)
Sampled:	12/12/22 15:45	Prepared:	12/14/22 08:54	Analyzed:	12/14/22 20:40
Solids:		Preparation:	1633	Dilution:	1
Initial/Final:	573.21 g / 2 ml			Instrument:	Saphira
Batch:	BBL0295	Sequence:	SB03835	Calibration:	2251013



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0083-02RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (45)  
 Acquired: 2022/12/14 - 20:40

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(212.9 / 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	(262.9 / 219.0) N/A (262.9 / 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			
PFTrDA	(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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0083-02RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (45)  
 Acquired: 2022/12/14 - 20:40

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(298.9 / 80.0) N/A (298.9 / 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	(698.9 / 80.0) N/A (698.9 / 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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0083-02RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (45)  
 Acquired: 2022/12/14 - 20:40

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(511.9 / 219.0) N/A (511.9 / 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) 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	(616.1 / 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			

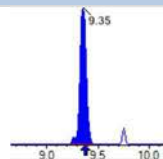
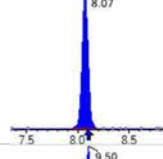
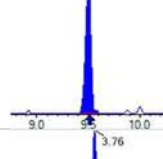
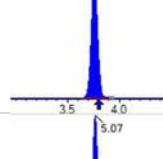
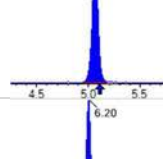
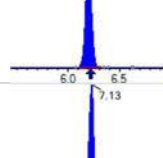
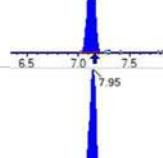
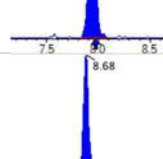
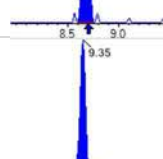
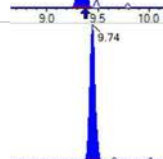
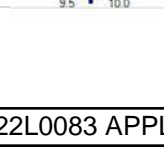


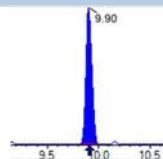
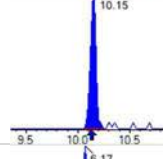
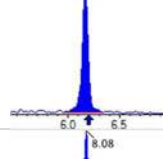
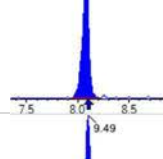
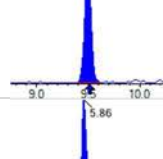
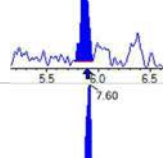
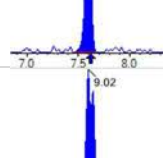
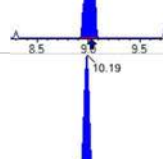
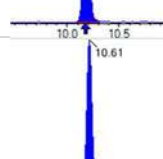
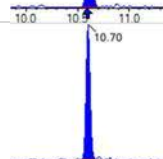
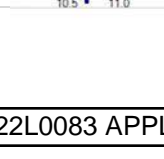
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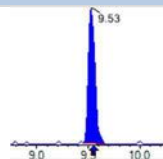
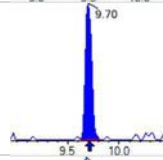
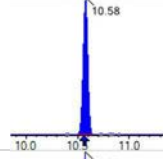
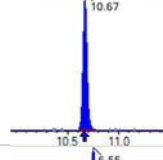
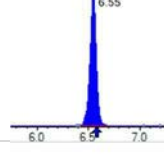
Sample I.D.: 22L0083-02RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (45)  
 Acquired: 2022/12/14 - 20:40

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	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(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) 8669	(3.76, N/A) (N/A, 0.04, N/A)	229.4	N/A	0.7145 [ 1.0000 ]	71.5% { 9.0% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 13866	(6.20, N/A) (N/A, 0.03, N/A)	206.0	N/A	0.7599 [ 1.0000 ]	76.0% { 7.9% }			
13C4_PFOA_IIS	(417.0 / 372.0) 12860	(7.94, N/A) (N/A, 0.02, N/A)	344.6	N/A	0.7367 [ 1.0000 ]	73.7% { 8.9% }			
13C5_PFNA_IIS	(468.0 / 423.0) 10665	(8.68, N/A) (N/A, 0.01, N/A)	78.5	N/A	0.7849 [ 1.0000 ]	78.5% { 9.1% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 10001	(9.35, N/A) (N/A, 0.01, N/A)	591.6	N/A	0.7207 [ 1.0000 ]	72.1% { 7.6% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 25585	(8.07, N/A) (N/A, 0.01, N/A)	312.0	N/A	0.7927 [ 1.0000 ]	79.3% { 9.0% }			
13C4_PFOS_IIS	(502.8 / 79.9) 17882	(9.50, N/A) (N/A, 0.01, N/A)	261.0	N/A	0.7101 [ 1.0000 ]	71.0% { 7.0% }			
13C4_PFBA_EIS	(217.0 / 172.0) 53381	(3.76, N/A) (N/A, 0.04, N/A)	914.2	N/A	0.8078 [ 0.8000 ]	101.0% { 8.3% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 38410	(5.07, N/A) (N/A, 0.04, N/A)	475.4	N/A	0.5002 [ 0.4000 ]	125.0% { 11.8% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 30211	(6.20, N/A) (N/A, 0.02, N/A)	332.5	N/A	0.2585 [ 0.2000 ]	129.3% { 10.9% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 25190	(7.13, N/A) (N/A, 0.02, N/A)	332.1	N/A	0.2483 [ 0.2000 ]	124.2% { 10.8% }			
13C8_PFOA_EIS	(421.0 / 376.0) 28077	(7.95, N/A) (N/A, 0.02, N/A)	285.2	N/A	0.2847 [ 0.2000 ]	142.4% { 12.1% }			
13C9_PFNA_EIS	(472.0 / 427.0) 11101	(8.68, N/A) (N/A, 0.01, N/A)	204.7	N/A	0.1351 [ 0.1000 ]	135.1% { 10.8% }			
13C6_PFDA_EIS	(519.0 / 474.0) 16589	(9.35, N/A) (N/A, 0.00, N/A)	560.8	N/A	0.1730 [ 0.1000 ]	173.0% { 13.6% }			S2,
13C7_PFUnA_EIS	(570.0 / 525.0) 18290	(9.74, N/A) (N/A, 0.01, N/A)	472.0	N/A	0.1388 [ 0.1000 ]	138.8% { 10.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 26065	(9.90, N/A) (N/A, 0.00, N/A)	1199.7	N/A	0.1609 [0.1000]	160.9% {12.5%}			S2,
13C2_PFTeDA_EIS	(715.0 / 670.0) 10567	(10.15, N/A) (N/A, 0.02, N/A)	101.8	N/A	0.1039 [0.1000]	103.9% {7.8%}			
13C3_PFBs_EIS	(302.0 / 80.0) 78603	(6.17, N/A) (N/A, 0.02, N/A)	179.1	N/A	0.2670 [0.2000]	133.5% {11.6%}			
13C3_PFHxS_EIS	(402.0 / 80.0) 34931	(8.08, N/A) (N/A, 0.02, N/A)	338.0	N/A	0.2108 [0.2000]	105.4% {9.3%}			
13C8_PFOS_EIS	(507.0 / 80.0) 68283	(9.49, N/A) (N/A, 0.00, N/A)	219.6	N/A	0.3067 [0.2000]	153.3% {11.5%}			S2,
13C2_4:2FTS_EIS	(329.0 / 81.0) 8038	(5.86, N/A) (N/A, 0.03, N/A)	34.5	N/A	0.4672 [0.4000]	116.8% {10.7%}			
13C2_6:2FTS_EIS	(429.0 / 81.0) 10541	(7.60, N/A) (N/A, 0.02, N/A)	111.6	N/A	0.5011 [0.4000]	125.3% {10.4%}			
13C2_8:2FTS_EIS	(529.0 / 81.0) 13024	(9.02, N/A) (N/A, 0.02, N/A)	868.1	N/A	0.6205 [0.4000]	155.1% {13.4%}			S2,
13C8_PFOsa_EIS	(506.0 / 78.0) 90350	(10.19, N/A) (N/A, 0.01, N/A)	354.7	N/A	0.2683 [0.2000]	134.1% {10.2%}			
D3_NMeFOSA_EIS	(515.0 / 169.0) 16434	(10.61, N/A) (N/A, 0.01, N/A)	255.1	N/A	0.1901 [0.2000]	95.1% {7.0%}			
D5_NEiFOSA_EIS	(531.1 / 169.0) 15230	(10.70, N/A) (N/A, 0.01, N/A)	247.0	N/A	0.2031 [0.2000]	101.5% {8.0%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 28747	(9.53, N/A) (N/A, 0.00, N/A)	191.4	N/A	0.5455 [ 0.4000 ]	136.4% { 11.3% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 22648	(9.70, N/A) (N/A, 0.00, N/A)	86.6	N/A	0.4750 [ 0.4000 ]	118.7% { 9.2% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 42538	(10.58, N/A) (N/A, 0.01, N/A)	454.5	N/A	2.5668 [ 2.0000 ]	128.3% { 10.5% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 22206	(10.67, N/A) (N/A, 0.01, N/A)	441.9	N/A	2.6741 [ 2.0000 ]	133.7% { 10.2% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 71603	(6.55, N/A) (N/A, 0.02, N/A)	541.6	N/A	1.0003 [ 0.8000 ]	125.0% { 10.8% }			

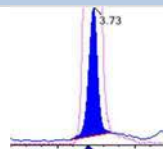
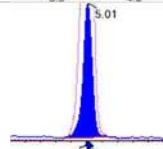
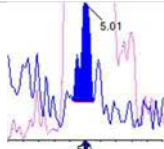
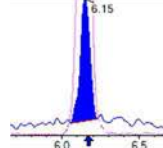
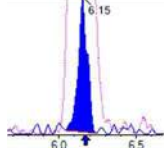
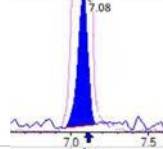
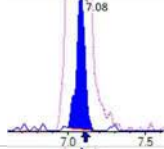
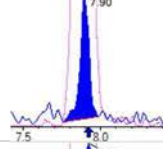
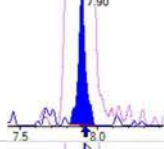
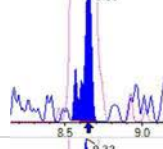
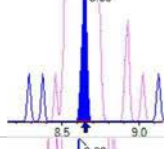
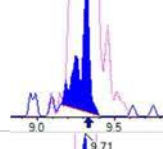
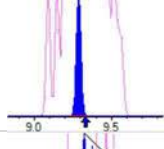
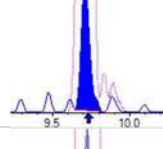
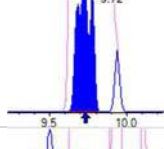
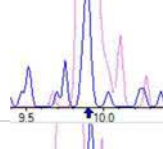
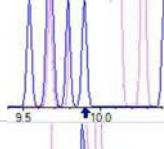
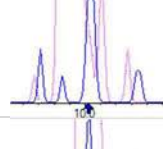
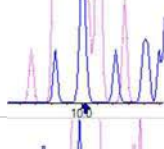
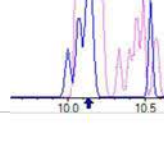
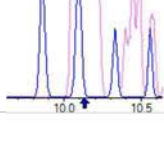


# FORM I ANALYSIS DATA SHEET

AF-RHMW03-WGN01LF-2212W2

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	22L0083-02RE2
		File ID:	S2022-12-20A (18)
Sampled:	12/12/22 15:45	Prepared:	12/19/22 08:59
		Analyzed:	12/20/22 13:41
Solids:		Preparation:	1633
		Dilution:	1
Initial/Final:	553.54 g / 2 ml	Instrument:	Saphira
Batch:	BBL0355	Sequence:	SB03903
		Calibration:	2251019

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
PFOS	0.13 J	0.36	0.18	0.057	IR2,
6:2FTS	5.2	1.4	0.72	0.28	

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(212.9 / 169.0) 30982	(3.73, 1.00) (0.00, N/A, 0.0)	43.3	N/A 0.0 0.0	0.8214	N/A			
PFPeA	(262.9 / 219.0) 84908 (262.9 / 69.0) 719	(5.01, 1.00) (0.00, N/A, 0.1)	270.2 8.0	0.0085 9918.7 69.6	1.0358	N/A			
PFHxA	(313.0 / 269.0) 50456 (313.0 / 119.0) 6176	(6.15, 1.00) (0.00, N/A, -0.3)	73.8 46.9	0.1224 124.8 128.8	0.3522	N/A			
PFHpA	(363.0 / 319.0) 29814 (363.0 / 169.0) 8833	(7.08, 1.00) (0.00, N/A, -0.3)	70.9 105.3	0.2963 94.8 102.6	0.2293	N/A			
PFOA	(413.0 / 369.0) 12275 (413.0 / 169.0) 4775	(7.90, 1.00) (0.00, N/A, 0.0)	44.9 58.3	0.3890 115.5 119.2	0.0899	N/A			
PFNA	(463.0 / 419.0) 3837 (463.0 / 169.0) 693	(8.65, 1.00) (0.01, N/A, 0.4)	23.5 18.3	0.1805 90.0 79.2	0.0373	N/A			
PFDA	(513.0 / 469.0) 6366 (513.0 / 169.0) 535	(9.32, 1.00) (0.01, N/A, 1.8)	24.7 55462.2	0.0841 105.7 90.5	0.0387	N/A			
PFUnA	(563.0 / 519.0) 8736 (563.0 / 169.0) 1829	(9.71, 1.00) (-0.01, N/A, -0.9)	36.6 26.6	0.2094 187.0 182.2	0.0464	N/A			IR2,
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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0083-02RE2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (18)  
 Acquired: 2022/12/20 - 13:41

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(298.9 / 80.0) N/A (298.9 / 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) 14237 (499.0 / 99.0) 5061	(9.46, 1.00) (0.01, N/A, 1.1)	20.3 221.6	0.3555 155.5 156.4	0.0363	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	(698.9 / 80.0) N/A (698.9 / 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) 88192 (427.0 / 81.0) 58048	(7.56, 1.00) (-0.01, N/A, -0.1)	387.1 137.1	0.6582 91.9 99.5	1.4394	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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0083-02RE2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (18)  
 Acquired: 2022/12/20 - 13:41

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 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			
NMeFOFA	(511.9 / 219.0) N/A (511.9 / 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			
NEtFOFA	(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) 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	(616.1 / 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			
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			

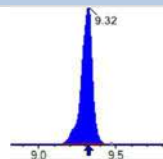
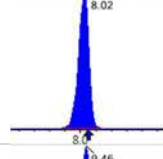
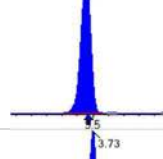
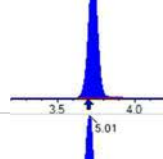
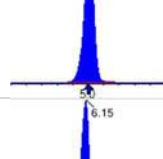
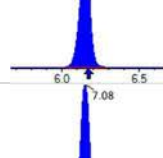
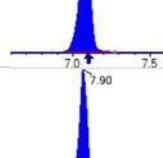
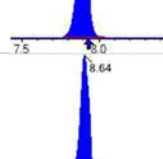
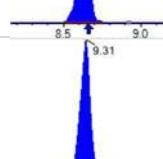
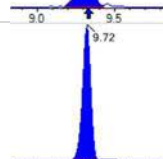
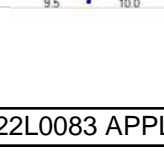


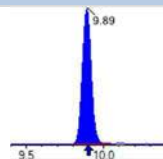
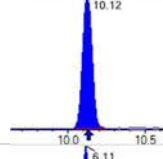
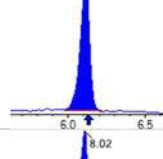
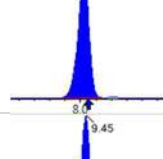
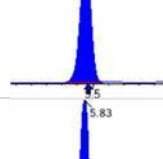
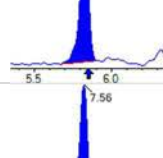
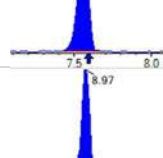
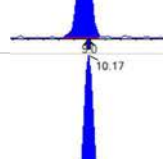
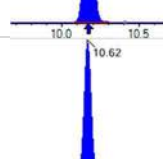
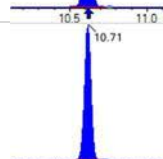
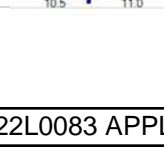
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

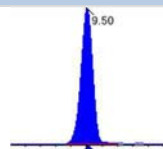
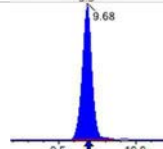
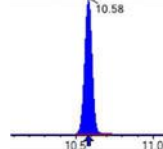
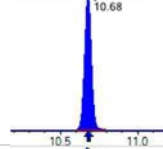
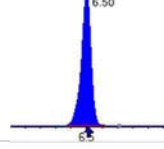
Sample I.D.: 22L0083-02RE2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (18)  
 Acquired: 2022/12/20 - 13:41

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	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(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) 67965	(3.73, N/A) (N/A, 0.03, N/A)	756.3	N/A	0.7774 [ 1.0000 ]	77.7% { 94.7% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 147574	(6.15, N/A) (N/A, -0.02, N/A)	404.5	N/A	1.1216 [ 1.0000 ]	112.2% { 126.3% }			
13C4_PFOA_IIS	(417.0 / 372.0) 146003	(7.90, N/A) (N/A, -0.03, N/A)	661.5	N/A	1.1664 [ 1.0000 ]	116.6% { 144.7% }			
13C5_PFNA_IIS	(468.0 / 423.0) 125061	(8.64, N/A) (N/A, -0.02, N/A)	308.1	N/A	1.2529 [ 1.0000 ]	125.3% { 128.8% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 121849	(9.32, N/A) (N/A, -0.01, N/A)	425.0	N/A	1.1750 [ 1.0000 ]	117.5% { 177.9% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 242085	(8.02, N/A) (N/A, -0.03, N/A)	930.4	N/A	1.0233 [ 1.0000 ]	102.3% { 114.7% }			
13C4_PFOS_IIS	(502.8 / 79.9) 272473	(9.46, N/A) (N/A, -0.01, N/A)	355.1	N/A	1.3582 [ 1.0000 ]	135.8% { 171.2% }			
13C4_PFBA_EIS	(217.0 / 172.0) 454321	(3.73, N/A) (N/A, 0.03, N/A)	932.7	N/A	6.4565 [ 8.0000 ]	80.7% { 79.8% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 362160	(5.01, N/A) (N/A, 0.00, N/A)	710.0	N/A	3.3334 [ 4.0000 ]	83.3% { 111.5% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 315821	(6.15, N/A) (N/A, -0.02, N/A)	798.9	N/A	1.8179 [ 2.0000 ]	90.9% { 132.3% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 288029	(7.08, N/A) (N/A, -0.02, N/A)	488.3	N/A	1.8766 [ 2.0000 ]	93.8% { 130.2% }			
13C8_PFOA_EIS	(421.0 / 376.0) 288033	(7.90, N/A) (N/A, -0.03, N/A)	758.3	N/A	1.7853 [ 2.0000 ]	89.3% { 125.4% }			
13C9_PFNA_EIS	(472.0 / 427.0) 121730	(8.64, N/A) (N/A, -0.02, N/A)	355.1	N/A	0.8911 [ 1.0000 ]	89.1% { 148.3% }			
13C6_PFDA_EIS	(519.0 / 474.0) 178464	(9.31, N/A) (N/A, -0.02, N/A)	285.3	N/A	1.0809 [ 1.0000 ]	108.1% { 165.1% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 252745	(9.72, N/A) (N/A, 0.00, N/A)	394.8	N/A	1.0631 [ 1.0000 ]	106.3% { 166.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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) 237267	(9.89, N/A) (N/A, -0.01, N/A)	428.0	N/A	0.8850 [ 1.0000 ]	88.5% { 130.3% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 108477	(10.12, N/A) (N/A, -0.01, N/A)	226.5	N/A	0.6657 [ 1.0000 ]	66.6% { 96.3% }			
13C3_PFBs_EIS	(302.0 / 80.0) 808169	(6.11, N/A) (N/A, -0.02, N/A)	241.5	N/A	2.0441 [ 2.0000 ]	102.2% { 122.1% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 437099	(8.02, N/A) (N/A, -0.03, N/A)	655.7	N/A	2.1318 [ 2.0000 ]	106.6% { 127.2% }			
13C8_PFOS_EIS	(507.0 / 80.0) 713249	(9.45, N/A) (N/A, -0.01, N/A)	358.7	N/A	1.5935 [ 2.0000 ]	79.7% { 129.7% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 180251	(5.83, N/A) (N/A, -0.02, N/A)	137.5	N/A	8.0851 [ 4.0000 ]	202.1% { 213.8% }			S2,
13C2_6:2FTS_EIS	(429.0 / 81.0) 158725	(7.56, N/A) (N/A, -0.03, N/A)	370.2	N/A	5.5555 [ 4.0000 ]	138.9% { 178.5% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 142624	(8.97, N/A) (N/A, -0.01, N/A)	267.3	N/A	5.5682 [ 4.0000 ]	139.2% { 162.1% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 865498	(10.17, N/A) (N/A, 0.00, N/A)	916.7	N/A	1.3287 [ 2.0000 ]	66.4% { 103.8% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 205776	(10.62, N/A) (N/A, 0.00, N/A)	899.5	N/A	1.2680 [ 2.0000 ]	63.4% { 100.9% }			
D5_NEtFOsa_EIS	(531.1 / 169.0) 195318	(10.71, N/A) (N/A, 0.00, N/A)	1022.2	N/A	1.2889 [ 2.0000 ]	64.4% { 105.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 363322	(9.50, N/A) (N/A, -0.01, N/A)	310.4	N/A	3.4605 [ 4.0000 ]	86.5% { 154.2% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 388955	(9.68, N/A) (N/A, -0.01, N/A)	445.7	N/A	4.4575 [ 4.0000 ]	111.4% { 173.8% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 423068	(10.58, N/A) (N/A, 0.00, N/A)	916.0	N/A	13.5532 [ 20.0000 ]	67.8% { 123.6% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 215893	(10.68, N/A) (N/A, 0.00, N/A)	1179.8	N/A	12.8436 [ 20.0000 ]	64.2% { 108.7% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 687989	(6.50, N/A) (N/A, -0.01, N/A)	818.7	N/A	6.5044 [ 8.0000 ]	81.3% { 105.2% }			



# FORM I ANALYSIS DATA SHEET

AF-RHMW02-WGN01LF-2212W2

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	22L0083-03
		File ID:	S2022-12-14A (46)
Sampled:	12/12/22 13:00	Prepared:	12/14/22 08:54
		Analyzed:	12/14/22 20:53
Solids:		Preparation:	1633
		Dilution:	1
Initial/Final:	586.27 g / 2 ml	Instrument:	Saphira
Batch:	BBL0295	Sequence:	SB03835
		Calibration:	2251013

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
PFBA	0.68 U	1.4	0.68	0.18	
PFPEA	0.48 J	0.68	0.34	0.055	
PFHXA	0.21 J	0.34	0.17	0.047	
PFHPA	0.16 J	0.34	0.17	0.035	IR1,
PFOA	0.17 U	0.34	0.17	0.13	
PFNA	0.17 U	0.34	0.17	0.070	
PFDA	0.17 U	0.34	0.17	0.086	
PFUnA	0.17 U	0.34	0.17	0.14	
PFDOA	0.17 U	0.34	0.17	0.095	
PFTRDA	0.26 U	0.34	0.26	0.17	
PFTEDA	0.17 U	0.34	0.17	0.17	
PFBS	0.17 U	0.34	0.17	0.031	
PFPEs	0.17 U	0.34	0.17	0.053	
PFHXS	0.17 U	0.34	0.17	0.027	
PFHPS	0.17 U	0.34	0.17	0.044	
PFNS	0.17 U	0.34	0.17	0.11	
PFDS	0.17 U	0.34	0.17	0.13	
PFDOS	0.17 U	0.34	0.17	0.10	
4:2FTS	0.68 U	1.4	0.68	0.25	
8:2FTS	0.68 U	1.4	0.68	0.070	
PFOSA	0.17 U	0.34	0.17	0.089	
NMeFOSA	0.68 U	1.4	0.68	0.40	
NEtFOSA	0.68 U	1.4	0.68	0.35	
NMeFOSAA	0.17 U	0.34	0.17	0.090	
NEtFOSAA	0.17 U	0.34	0.17	0.098	
NMeFOSE	1.0 U	1.4	1.0	0.86	
NEtFOSE	1.0 U	1.4	1.0	0.89	
HFPO-DA	0.34 U	0.68	0.34	0.15	
ADONA	0.34 U	0.68	0.34	0.11	
PFEESA	0.34 U	0.68	0.34	0.093	

# FORM I ANALYSIS DATA SHEET

AF-RHMW02-WGN01LF-2212W2

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	22L0083-03
		File ID:	S2022-12-14A (46)
Sampled:	12/12/22 13:00	Prepared:	12/14/22 08:54
		Analyzed:	12/14/22 20:53
Solids:		Preparation:	1633
		Dilution:	1
Initial/Final:	586.27 g / 2 ml	Instrument:	Saphira
Batch:	BBL0295	Sequence:	SB03835
		Calibration:	2251013

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
PFMPA	0.34 U	0.68	0.34	0.046	
PFMBA	0.34 U	0.68	0.34	0.077	
NFDHA	0.34 U	0.68	0.34	0.26	
9CL-PF3ONS	0.34 U	0.68	0.34	0.18	
11CL-PF3OUDS	0.34 U	0.68	0.34	0.18	
3:3FTCA	0.68 U	1.4	0.68	0.49	
5:3FTCA	0.68 U	1.4	0.68	0.38	
7:3FTCA	0.68 U	1.4	0.68	0.47	



Chemist: ABK  
Instrument: Saphira  
Type: Sciex Q3 5500

Sample I.D.: 22L0083-03  
DF, IV: 1, 10.0µL  
Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
Path: S2022-12-14A (46)  
Acquired: 2022/12/14 - 20:53

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	(212.9 / 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	(262.9 / 219.0) 8878 (262.9 / 69.0) 210	( 5.00 , 1.00 ) ( 0.00 , N/A , 0.3 )	15.5 6.4	0.0237 188.8 201.9	0.1414	N/A			
PFHxA	(313.0 / 269.0) 7830 (313.0 / 119.0) 504	( 6.14 , 1.00 ) ( 0.00 , N/A , -3.1 )	18.4 5.6	0.0644 69.6 60.5	0.0607	N/A			
PFHpA	(363.0 / 319.0) 6133 (363.0 / 169.0) 777	( 7.08 , 1.00 ) ( 0.00 , N/A , -1.4 )	19.0 6.9	0.1267 40.7 39.1	0.0455	N/A			IR1,
PFOA	(413.0 / 369.0) 5653 (413.0 / 169.0) 2081	( 7.89 , 1.00 ) ( -0.01 , N/A , -0.1 )	27.5 104.6	0.3681 109.7 126.3	0.0364	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			
PFTrDA	(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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0083-03  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (46)  
 Acquired: 2022/12/14 - 20:53

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	( 298.9 / 80.0 ) N/A ( 298.9 / 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 ) 221484 ( 499.0 / 99.0 ) 53835	( 9.48 , 1.00 ) ( 0.00 , N/A , 0.1 )	131.5 119.0	0.2431 105.9 95.3	0.5648	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	( 698.9 / 80.0 ) N/A ( 698.9 / 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 ) 24844 ( 427.0 / 81.0 ) 20065	( 7.55 , 1.00 ) ( 0.00 , N/A , 0.0 )	173.3 70.3	0.8077 124.3 108.8	0.3767	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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0083-03  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (46)  
 Acquired: 2022/12/14 - 20:53

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 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	(511.9 / 219.0) N/A (511.9 / 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) 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	(616.1 / 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			
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			

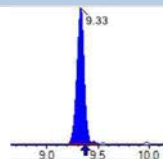
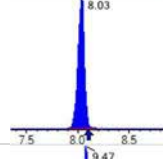
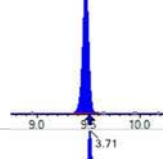
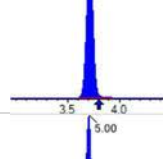
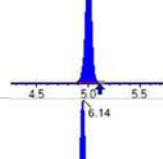
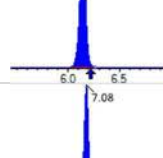
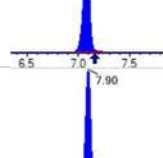
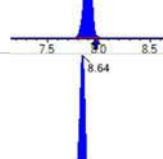
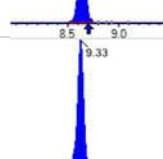
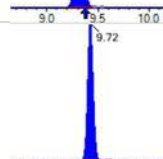
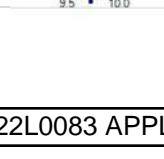


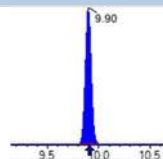
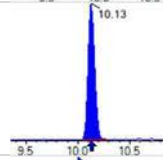
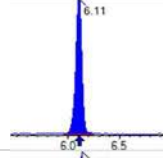
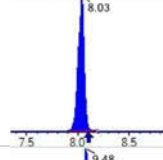
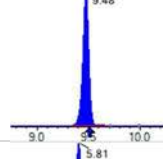
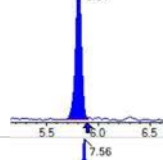
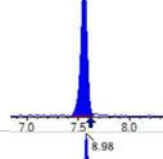
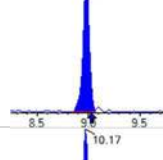
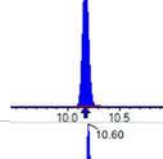
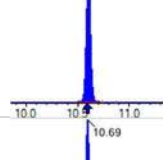
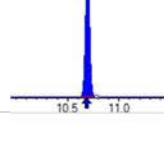
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0083-03  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

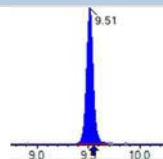
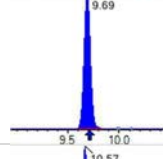
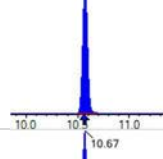
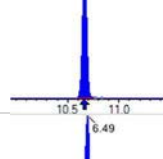
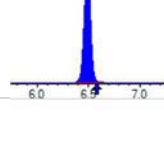
Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (46)  
 Acquired: 2022/12/14 - 20:53

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	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(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) 51865	(3.72, N/A) (N/A, 0.00, N/A)	275.5	N/A	0.4275 [ 1.0000 ]	42.7% { 53.9% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 138417	(6.15, N/A) (N/A, -0.03, N/A)	484.0	N/A	0.7585 [ 1.0000 ]	75.9% { 79.0% }			
13C4_PFOA_IIS	(417.0 / 372.0) 139507	(7.90, N/A) (N/A, -0.02, N/A)	533.5	N/A	0.7992 [ 1.0000 ]	79.9% { 96.2% }			
13C5_PFNA_IIS	(468.0 / 423.0) 120910	(8.65, N/A) (N/A, -0.02, N/A)	423.5	N/A	0.8898 [ 1.0000 ]	89.0% { 103.2% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 130740	(9.33, N/A) (N/A, -0.02, N/A)	267.2	N/A	0.9422 [ 1.0000 ]	94.2% { 99.8% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 267687	(8.03, N/A) (N/A, -0.03, N/A)	739.3	N/A	0.8294 [ 1.0000 ]	82.9% { 94.5% }			
13C4_PFOS_IIS	(502.8 / 79.9) 217822	(9.47, N/A) (N/A, -0.02, N/A)	322.2	N/A	0.8650 [ 1.0000 ]	86.5% { 85.6% }			
13C4_PFBA_EIS	(217.0 / 172.0) 260622	(3.71, N/A) (N/A, 0.00, N/A)	794.0	N/A	6.5922 [ 8.0000 ]	82.4% { 40.7% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 282892	(5.00, N/A) (N/A, -0.03, N/A)	765.3	N/A	3.6905 [ 4.0000 ]	92.3% { 86.6% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 291037	(6.14, N/A) (N/A, -0.03, N/A)	776.6	N/A	2.4949 [ 2.0000 ]	124.7% { 105.1% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 291312	(7.08, N/A) (N/A, -0.03, N/A)	702.2	N/A	2.8768 [ 2.0000 ]	143.8% { 125.3% }			
13C8_PFOA_EIS	(421.0 / 376.0) 310715	(7.90, N/A) (N/A, -0.02, N/A)	994.5	N/A	2.9046 [ 2.0000 ]	145.2% { 134.0% }			
13C9_PFNA_EIS	(472.0 / 427.0) 122630	(8.64, N/A) (N/A, -0.02, N/A)	336.6	N/A	1.3164 [ 1.0000 ]	131.6% { 119.2% }			
13C6_PFDA_EIS	(519.0 / 474.0) 172580	(9.33, N/A) (N/A, -0.02, N/A)	374.8	N/A	1.3764 [ 1.0000 ]	137.6% { 141.4% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 242118	(9.72, N/A) (N/A, -0.01, N/A)	340.0	N/A	1.4059 [ 1.0000 ]	140.6% { 138.6% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 261916	(9.90, N/A) (N/A, -0.01, N/A)	594.2	N/A	1.2368 [ 1.0000 ]	123.7% { 125.2% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 117103	(10.13, N/A) (N/A, -0.01, N/A)	347.0	N/A	0.8807 [ 1.0000 ]	88.1% { 86.8% }			
13C3_PFBs_EIS	(302.0 / 80.0) 773247	(6.11, N/A) (N/A, -0.04, N/A)	476.2	N/A	2.5105 [ 2.0000 ]	125.5% { 113.7% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 442149	(8.03, N/A) (N/A, -0.03, N/A)	663.6	N/A	2.5508 [ 2.0000 ]	127.5% { 117.1% }			
13C8_PFOS_EIS	(507.0 / 80.0) 713221	(9.48, N/A) (N/A, -0.02, N/A)	418.8	N/A	2.6299 [ 2.0000 ]	131.5% { 119.8% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 132110	(5.81, N/A) (N/A, -0.03, N/A)	230.0	N/A	7.3388 [ 4.0000 ]	183.5% { 176.5% }			S2,
13C2_6:2FTS_EIS	(429.0 / 81.0) 161828	(7.56, N/A) (N/A, -0.02, N/A)	356.6	N/A	7.3523 [ 4.0000 ]	183.8% { 160.3% }			S2,
13C2_8:2FTS_EIS	(529.0 / 81.0) 112037	(8.98, N/A) (N/A, -0.02, N/A)	235.3	N/A	5.1020 [ 4.0000 ]	127.5% { 115.5% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 647694	(10.17, N/A) (N/A, 0.00, N/A)	788.9	N/A	1.5789 [ 2.0000 ]	78.9% { 73.3% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 121400	(10.60, N/A) (N/A, 0.00, N/A)	916.3	N/A	1.1529 [ 2.0000 ]	57.6% { 51.9% }			
D5_NEtFOsa_EIS	(531.1 / 169.0) 106020	(10.69, N/A) (N/A, 0.01, N/A)	1155.8	N/A	1.1605 [ 2.0000 ]	58.0% { 56.0% }			



Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 350341	(9.51, N/A) (N/A, -0.01, N/A)	353.5	N/A	5.4578 [ 4.0000 ]	136.4% { 138.0% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 335382	(9.69, N/A) (N/A, -0.01, N/A)	427.2	N/A	5.7742 [ 4.0000 ]	144.4% { 136.5% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 270477	(10.57, N/A) (N/A, 0.01, N/A)	743.6	N/A	13.3986 [ 20.0000 ]	67.0% { 66.6% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 167584	(10.67, N/A) (N/A, 0.00, N/A)	934.4	N/A	16.5675 [ 20.0000 ]	82.8% { 76.8% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 603323	(6.49, N/A) (N/A, -0.03, N/A)	983.7	N/A	8.4435 [ 8.0000 ]	105.5% { 90.8% }			

# FORM I

## ANALYSIS DATA SHEET

AF-RHMW02-WGN01LF-2212W2

Laboratory:	APPL, LLC	Work Order:	22L0083		
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling		
Matrix:	Water	Laboratory ID:	22L0083-03RE1	File ID:	S2022-12-14A (47)
Sampled:	12/12/22 13:00	Prepared:	12/14/22 08:54	Analyzed:	12/14/22 21:06
Solids:		Preparation:	1633	Dilution:	1
Initial/Final:	586.27 g / 2 ml			Instrument:	Saphira
Batch:	BBL0295	Sequence:	SB03835	Calibration:	2251013



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0083-03RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (47)  
 Acquired: 2022/12/14 - 21:06

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(212.9 / 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	(262.9 / 219.0) N/A (262.9 / 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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0083-03RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (47)  
 Acquired: 2022/12/14 - 21:06

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	( 298.9 / 80.0 ) N/A ( 298.9 / 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	( 698.9 / 80.0 ) N/A ( 698.9 / 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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0083-03RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (47)  
 Acquired: 2022/12/14 - 21:06

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(511.9 / 219.0) N/A (511.9 / 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) 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	(616.1 / 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			
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			

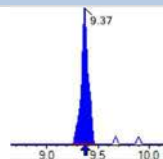
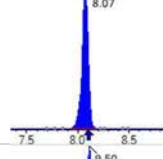
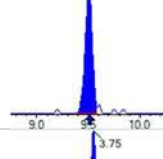
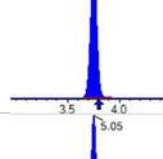
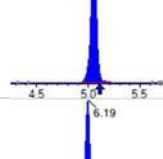
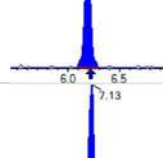
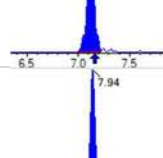
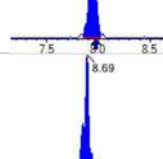
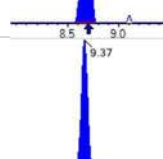
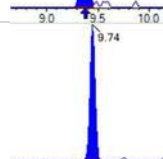
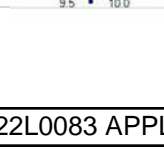


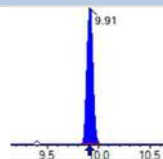
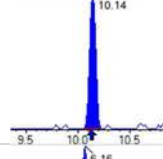
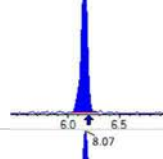
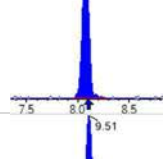
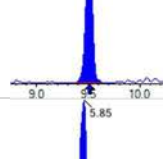
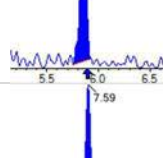
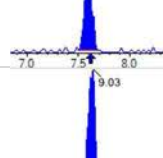
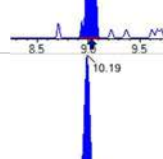
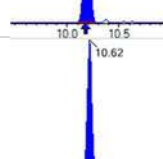
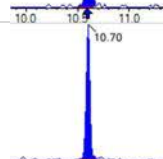
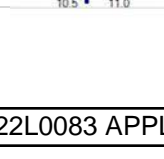
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0083-03RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (47)  
 Acquired: 2022/12/14 - 21:06

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(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) 7747	(3.75, N/A) (N/A, 0.04, N/A)	125.8	N/A	0.6385 [ 1.0000 ]	63.9% { 8.0% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 12925	(6.19, N/A) (N/A, 0.02, N/A)	144.2	N/A	0.7083 [ 1.0000 ]	70.8% { 7.4% }			
13C4_PFOA_IIS	(417.0 / 372.0) 14768	(7.93, N/A) (N/A, 0.01, N/A)	435.8	N/A	0.8460 [ 1.0000 ]	84.6% { 10.2% }			
13C5_PFNA_IIS	(468.0 / 423.0) 9004	(8.70, N/A) (N/A, 0.03, N/A)	95.3	N/A	0.6626 [ 1.0000 ]	66.3% { 7.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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	(515.1 / 470.1) 11012	(9.37, N/A) (N/A, 0.02, N/A)	218.6	N/A	0.7936 [ 1.0000 ]	79.4% { 8.4% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 24741	(8.07, N/A) (N/A, 0.01, N/A)	346.3	N/A	0.7666 [ 1.0000 ]	76.7% { 8.7% }			
13C4_PFOS_IIS	(502.8 / 79.9) 17025	(9.50, N/A) (N/A, 0.01, N/A)	103.1	N/A	0.6761 [ 1.0000 ]	67.6% { 6.7% }			
13C4_PFBA_EIS	(217.0 / 172.0) 40991	(3.75, N/A) (N/A, 0.04, N/A)	767.2	N/A	0.6941 [ 0.8000 ]	86.8% { 6.4% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 34915	(5.05, N/A) (N/A, 0.02, N/A)	474.4	N/A	0.4878 [ 0.4000 ]	121.9% { 10.7% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 28048	(6.19, N/A) (N/A, 0.02, N/A)	328.2	N/A	0.2575 [ 0.2000 ]	128.7% { 10.1% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 23600	(7.13, N/A) (N/A, 0.02, N/A)	245.0	N/A	0.2496 [ 0.2000 ]	124.8% { 10.2% }			
13C8_PFOA_EIS	(421.0 / 376.0) 26826	(7.94, N/A) (N/A, 0.02, N/A)	514.6	N/A	0.2369 [ 0.2000 ]	118.4% { 11.6% }			
13C9_PFNA_EIS	(472.0 / 427.0) 7533	(8.69, N/A) (N/A, 0.03, N/A)	767.1	N/A	0.1086 [ 0.1000 ]	108.6% { 7.3% }			
13C6_PFDA_EIS	(519.0 / 474.0) 12957	(9.37, N/A) (N/A, 0.02, N/A)	122.2	N/A	0.1227 [ 0.1000 ]	122.7% { 10.6% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 18542	(9.74, N/A) (N/A, 0.01, N/A)	925.4	N/A	0.1278 [ 0.1000 ]	127.8% { 10.6% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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) 24511	(9.91, N/A) (N/A, 0.01, N/A)	6768.7	N/A	0.1374 [0.1000]	137.4% {11.7%}			
13C2_PFTeDA_EIS	(715.0 / 670.0) 18410	(10.14, N/A) (N/A, 0.01, N/A)	117.6	N/A	0.1644 [0.1000]	164.4% {13.6%}			S2,
13C3_PFBs_EIS	(302.0 / 80.0) 73853	(6.16, N/A) (N/A, 0.02, N/A)	228.1	N/A	0.2594 [0.2000]	129.7% {10.9%}			
13C3_PFHxS_EIS	(402.0 / 80.0) 40711	(8.07, N/A) (N/A, 0.02, N/A)	276.7	N/A	0.2541 [0.2000]	127.1% {10.8%}			
13C8_PFOS_EIS	(507.0 / 80.0) 55773	(9.51, N/A) (N/A, 0.01, N/A)	146.1	N/A	0.2631 [0.2000]	131.6% {9.4%}			
13C2_4:2FTS_EIS	(329.0 / 81.0) 8243	(5.85, N/A) (N/A, 0.02, N/A)	42.3	N/A	0.4954 [0.4000]	123.9% {11.0%}			
13C2_6:2FTS_EIS	(429.0 / 81.0) 10610	(7.59, N/A) (N/A, 0.02, N/A)	105.1	N/A	0.5215 [0.4000]	130.4% {10.5%}			
13C2_8:2FTS_EIS	(529.0 / 81.0) 10635	(9.03, N/A) (N/A, 0.03, N/A)	72.2	N/A	0.5240 [0.4000]	131.0% {11.0%}			
13C8_PFOsa_EIS	(506.0 / 78.0) 58932	(10.19, N/A) (N/A, 0.02, N/A)	481.3	N/A	0.1838 [0.2000]	91.9% {6.7%}			
D3_NMeFOSA_EIS	(515.0 / 169.0) 8335	(10.62, N/A) (N/A, 0.02, N/A)	177.7	N/A	0.1013 [0.2000]	50.6% {3.6%}			
D5_NEiFOSA_EIS	(531.1 / 169.0) 10340	(10.70, N/A) (N/A, 0.01, N/A)	225.7	N/A	0.1448 [0.2000]	72.4% {5.5%}			





Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0083-03RE1@10  
 DF, IV: 1, 1.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (47)  
 Acquired: 2022/12/14 - 21:06

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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 ) 26339	( 9.54 , N/A ) ( N/A , 0.01 , N/A )	35533.8	N/A	0.5250 [ 0.4000 ]	131.2% { 10.4% }			
D5_EtFOSAA_EIS	( 589.0 / 419.0 ) 25256	( 9.71 , N/A ) ( N/A , 0.01 , N/A )	100.9	N/A	0.5563 [ 0.4000 ]	139.1% { 10.3% }			
D7_NMeFOSE_EIS	( 623.2 / 58.9 ) 29297	( 10.58 , N/A ) ( N/A , 0.01 , N/A )	301.6	N/A	1.8568 [ 2.0000 ]	92.8% { 7.2% }			
D9_NEtFOSE_EIS	( 639.2 / 58.9 ) 13378	( 10.67 , N/A ) ( N/A , 0.01 , N/A )	292.9	N/A	1.6921 [ 2.0000 ]	84.6% { 6.1% }			
13C3_HFPODA_EIS	( 287.0 / 169.0 ) 68902	( 6.54 , N/A ) ( N/A , 0.02 , N/A )	539.5	N/A	1.0326 [ 0.8000 ]	129.1% { 10.4% }			

# FORM I ANALYSIS DATA SHEET

AF-RHMW02-WGN01LF-2212W2

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	22L0083-03RE2
		File ID:	S2022-12-20A (20)
Sampled:	12/12/22 13:00	Prepared:	12/19/22 08:59
		Analyzed:	12/20/22 14:07
Solids:		Preparation:	1633
		Dilution:	1
Initial/Final:	544.64 g / 2 ml	Instrument:	Saphira
Batch:	BBL0355	Sequence:	SB03903
		Calibration:	2251019

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
PFOS	0.18 J	0.37	0.18	0.058	
6:2FTS	2.1	1.5	0.73	0.29	



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0083-03RE2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (20)  
 Acquired: 2022/12/20 - 14:07

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	(212.9 / 169.0) 23778	(3.74, 1.00) (-0.01, N/A, 0.0)	9.4	N/A 0.0 0.0	1.0036	N/A			
PFPeA	(262.9 / 219.0) 10430 (262.9 / 69.0) 285	(4.99, 1.00) (-0.01, N/A, 0.4)	18.1 4.4	0.0273 32025.1 224.7	0.1685	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) 4027 (363.0 / 169.0) 1595	(7.08, 1.00) (0.01, N/A, 0.4)	20.8 20.1	0.3961 126.8 137.2	0.0320	N/A			
PFOA	(413.0 / 369.0) 6923 (413.0 / 169.0) 1009	(7.89, 1.00) (-0.01, N/A, 1.1)	28.7 35.5	0.1458 43.3 44.7	0.0530	N/A			IR1,
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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0083-03RE2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (20)  
 Acquired: 2022/12/20 - 14:07

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(298.9 / 80.0) N/A (298.9 / 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) 17736 (499.0 / 99.0) 5912	(9.45, 1.00) (0.00, N/A, -0.5)	19.8 36.5	0.3333 145.8 146.7	0.0488	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	(698.9 / 80.0) N/A (698.9 / 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) 37648 (427.0 / 81.0) 28752	(7.55, 1.00) (-0.01, N/A, -0.3)	198.4 88.2	0.7637 106.6 115.5	0.5730	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			

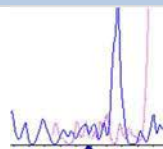
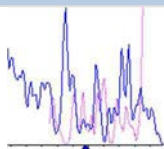
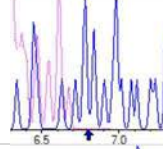
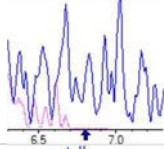
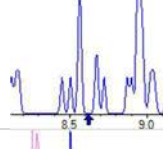
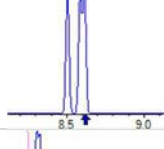
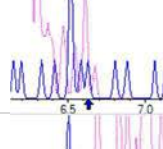
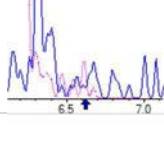
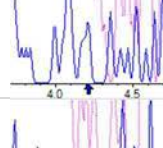
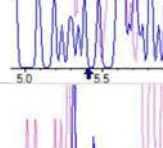
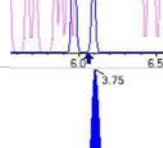
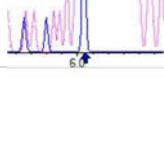
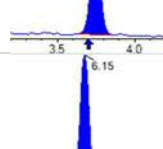
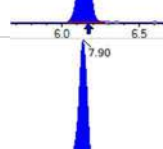
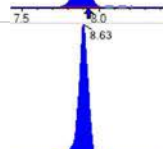



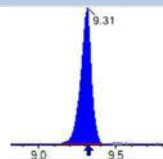
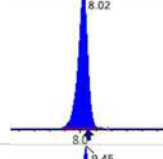
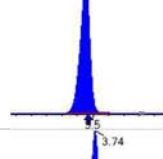
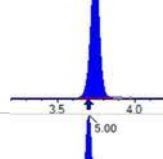
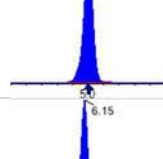
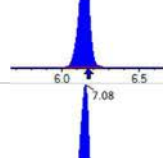
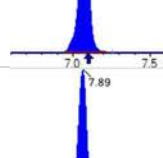
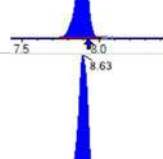
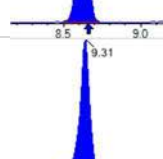
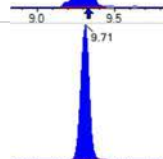
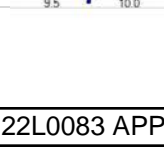
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

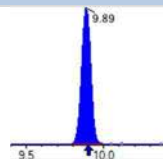
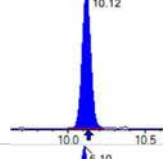
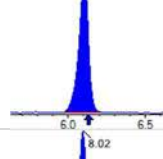
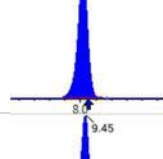
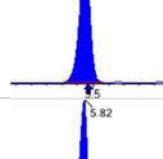
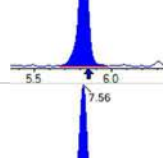
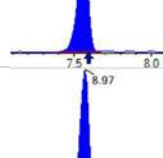
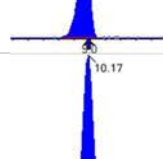
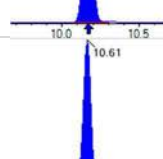
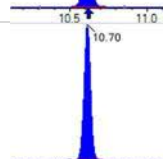

Sample I.D.: 22L0083-03RE2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (20)  
 Acquired: 2022/12/20 - 14:07

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(511.9 / 219.0) N/A (511.9 / 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) 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	(616.1 / 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			
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.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 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	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(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) 49665	(3.75, N/A) (N/A, 0.05, N/A)	245.1	N/A	0.5681 [ 1.0000 ]	56.8% { 69.2% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 135503	(6.15, N/A) (N/A, -0.02, N/A)	577.5	N/A	1.0299 [ 1.0000 ]	103.0% { 116.0% }			
13C4_PFOA_IIS	(417.0 / 372.0) 139867	(7.90, N/A) (N/A, -0.03, N/A)	452.1	N/A	1.1174 [ 1.0000 ]	111.7% { 138.6% }			
13C5_PFNA_IIS	(468.0 / 423.0) 108873	(8.63, N/A) (N/A, -0.02, N/A)	482.5	N/A	1.0907 [ 1.0000 ]	109.1% { 112.1% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 139457	(9.31, N/A) (N/A, -0.01, N/A)	418.7	N/A	1.3448 [ 1.0000 ]	134.5% { 203.6% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 280052	(8.02, N/A) (N/A, -0.03, N/A)	806.0	N/A	1.1837 [ 1.0000 ]	118.4% { 132.7% }			
13C4_PFOS_IIS	(502.8 / 79.9) 232169	(9.45, N/A) (N/A, -0.02, N/A)	419.0	N/A	1.1573 [ 1.0000 ]	115.7% { 145.9% }			
13C4_PFBA_EIS	(217.0 / 172.0) 285399	(3.74, N/A) (N/A, 0.05, N/A)	802.3	N/A	5.5505 [ 8.0000 ]	69.4% { 50.2% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 273512	(5.00, N/A) (N/A, 0.00, N/A)	693.0	N/A	2.7417 [ 4.0000 ]	68.5% { 84.2% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 279547	(6.15, N/A) (N/A, -0.03, N/A)	659.0	N/A	1.7525 [ 2.0000 ]	87.6% { 117.1% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 278635	(7.08, N/A) (N/A, -0.02, N/A)	561.6	N/A	1.9771 [ 2.0000 ]	98.9% { 126.0% }			
13C8_PFOA_EIS	(421.0 / 376.0) 275549	(7.89, N/A) (N/A, -0.03, N/A)	661.4	N/A	1.7829 [ 2.0000 ]	89.1% { 120.0% }			
13C9_PFNA_EIS	(472.0 / 427.0) 108830	(8.63, N/A) (N/A, -0.03, N/A)	467.6	N/A	0.9151 [ 1.0000 ]	91.5% { 132.6% }			
13C6_PFDA_EIS	(519.0 / 474.0) 151557	(9.31, N/A) (N/A, -0.02, N/A)	286.4	N/A	0.8020 [ 1.0000 ]	80.2% { 140.2% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 221554	(9.71, N/A) (N/A, -0.02, N/A)	690.5	N/A	0.8143 [ 1.0000 ]	81.4% { 146.1% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 242512	(9.89, N/A) (N/A, -0.01, N/A)	485.6	N/A	0.7903 [ 1.0000 ]	79.0% { 133.1% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 124786	(10.12, N/A) (N/A, -0.01, N/A)	298.5	N/A	0.6691 [ 1.0000 ]	66.9% { 110.8% }			
13C3_PFBs_EIS	(302.0 / 80.0) 749840	(6.10, N/A) (N/A, -0.03, N/A)	380.8	N/A	1.6394 [ 2.0000 ]	82.0% { 113.3% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 446040	(8.02, N/A) (N/A, -0.04, N/A)	789.5	N/A	1.8805 [ 2.0000 ]	94.0% { 129.8% }			
13C8_PFOS_EIS	(507.0 / 80.0) 661535	(9.45, N/A) (N/A, -0.02, N/A)	458.0	N/A	1.7346 [ 2.0000 ]	86.7% { 120.3% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 163486	(5.82, N/A) (N/A, -0.02, N/A)	254.9	N/A	6.3390 [ 4.0000 ]	158.5% { 194.0% }			S2,
13C2_6:2FTS_EIS	(429.0 / 81.0) 170211	(7.56, N/A) (N/A, -0.03, N/A)	440.5	N/A	5.1499 [ 4.0000 ]	128.7% { 191.4% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 129038	(8.97, N/A) (N/A, -0.02, N/A)	406.8	N/A	4.3548 [ 4.0000 ]	108.9% { 146.6% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 798628	(10.17, N/A) (N/A, -0.01, N/A)	525.2	N/A	1.4389 [ 2.0000 ]	71.9% { 95.8% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 128525	(10.61, N/A) (N/A, 0.00, N/A)	769.1	N/A	0.9295 [ 2.0000 ]	46.5% { 63.1% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 116582	(10.70, N/A) (N/A, 0.00, N/A)	971.9	N/A	0.9029 [ 2.0000 ]	45.1% { 63.1% }			





Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: 22L0083-03RE2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (20)  
 Acquired: 2022/12/20 - 14:07

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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 ) 330598	( 9.50 , N/A ) ( N/A , -0.01 , N/A )	327.1	N/A	3.6954 [ 4.0000 ]	92.4% { 140.3% }			
D5_EtFOSAA_EIS	( 589.0 / 419.0 ) 368983	( 9.68 , N/A ) ( N/A , -0.02 , N/A )	387.2	N/A	4.9627 [ 4.0000 ]	124.1% { 164.9% }			
D7_NMeFOSE_EIS	( 623.2 / 58.9 ) 372695	( 10.58 , N/A ) ( N/A , 0.00 , N/A )	583.7	N/A	14.0121 [ 20.0000 ]	70.1% { 108.9% }			
D9_NEtFOSE_EIS	( 639.2 / 58.9 ) 204226	( 10.68 , N/A ) ( N/A , 0.00 , N/A )	1317.1	N/A	14.2586 [ 20.0000 ]	71.3% { 102.9% }			
13C3_HFPODA_EIS	( 287.0 / 169.0 ) 579517	( 6.49 , N/A ) ( N/A , -0.02 , N/A )	700.8	N/A	5.9670 [ 8.0000 ]	74.6% { 88.6% }			

# QUALITY CONTROL

## SURROGATE SUMMARY SHEET

EPA 1633

Client: AECOM  
 Work Order: 22L0083  
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
<b>AF-RHMW03-WGN01LF-2212W2 (22L0083-02) ng/L</b>		Lab File ID: S2022-12-14A (44)		Analyzed: 12/14/22 20:27
13C4-PFBA	27.9	110	20 - 150	
13C5-PFPEA	14.0	104	20 - 150	
13C5-PFHXA	6.98	133	20 - 150	
13C4-PFHFA	6.98	128	20 - 150	
13C8-PFOA	6.98	134	20 - 150	
13C9-PFNA	3.49	125	20 - 150	
13C6-PFDA	3.49	127	20 - 150	
13C7-PFUnA	3.49	156	20 - 150	*
13C2-PFDOA	3.49	108	20 - 150	
13C2-PFTEDA	3.49	90.5	20 - 150	
13C3-PFBS	6.98	129	20 - 150	
13C3-PFHXS	6.98	130	20 - 150	
13C8-PFOS	6.98	120	20 - 150	
13C2-4:2FTS	14.0	201	20 - 150	*
13C2-8:2FTS	14.0	139	20 - 150	
13C8-PFOSA	6.98	93.7	20 - 150	
D5-NETFOSA	6.98	77.6	20 - 150	
D3-NMEFOSA	6.98	70.7	20 - 150	
D3-NMEFOSAA	14.0	156	20 - 150	*
D5-NETFOSAA	14.0	148	20 - 150	
D7-NMEFOSE	69.8	80.2	20 - 150	
D9-NETFOSAA	69.8	85.4	20 - 150	
13C3-HFPO-DA	27.9	117	20 - 150	
<b>AF-RHMW03-WGN01LF-2212W2 (22L0083-02RE1) ng/L</b>		Lab File ID: S2022-12-14A (45)		Analyzed: 12/14/22 20:40
13C7-PFUnA	3.49	139	20 - 150	
13C2-4:2FTS	14.0	117	20 - 150	
D3-NMEFOSAA	14.0	136	20 - 150	

## SURROGATE SUMMARY SHEET

EPA 1633

Client: AECOM  
 Work Order: 22L0083  
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
<b>AF-RHMW02-WGN01LF-2212W2 (22L0083-03) ng/L</b>		Lab File ID: S2022-12-14A (46)		Analyzed: 12/14/22 20:53
13C4-PFBA	27.3	82.4	20 - 150	
13C5-PFPEA	13.6	92.3	20 - 150	
13C5-PFHXA	6.82	125	20 - 150	
13C4-PFHFA	6.82	144	20 - 150	
13C8-PFOA	6.82	145	20 - 150	
13C9-PFNA	3.41	132	20 - 150	
13C6-PFDA	3.41	138	20 - 150	
13C7-PFUnA	3.41	141	20 - 150	
13C2-PFDOA	3.41	124	20 - 150	
13C2-PFTEDA	3.41	88.1	20 - 150	
13C3-PFBS	6.82	126	20 - 150	
13C3-PFHXS	6.82	128	20 - 150	
13C8-PFOS	6.82	131	20 - 150	
13C2-4:2FTS	13.6	183	20 - 150	*
13C2-8:2FTS	13.6	128	20 - 150	
13C8-PFOSA	6.82	78.9	20 - 150	
D5-NETFOSA	6.82	58.0	20 - 150	
D3-NMEFOSA	6.82	57.6	20 - 150	
D3-NMEFOSAA	13.6	136	20 - 150	
D5-NETFOSAA	13.6	144	20 - 150	
D7-NMEFOSE	68.2	67.0	20 - 150	
D9-NETFOSAE	68.2	82.8	20 - 150	
13C3-HFPO-DA	27.3	106	20 - 150	
<b>AF-RHMW02-WGN01LF-2212W2 (22L0083-03RE1) ng/L</b>		Lab File ID: S2022-12-14A (47)		Analyzed: 12/14/22 21:06
13C2-4:2FTS	13.6	124	20 - 150	

## SURROGATE SUMMARY SHEET

EPA 1633

Client: AECOM  
 Work Order: 22L0083  
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
<b>Blank (BBL0295-BLK1) . ng/L</b>				
	Lab File ID: S2022-12-14A (41)			Analyzed: 12/14/22 19:49
13C4-PFBA	32.0	121	20 - 150	
13C5-PFPEA	16.0	107	20 - 150	
13C5-PFHXA	8.00	119	20 - 150	
13C4-PFHPA	8.00	120	20 - 150	
13C8-PFOA	8.00	120	20 - 150	
13C9-PFNA	4.00	115	20 - 150	
13C6-PFDA	4.00	123	20 - 150	
13C7-PFUnA	4.00	122	20 - 150	
13C2-PFDOA	4.00	124	20 - 150	
13C2-PFTEDA	4.00	132	20 - 150	
13C3-PFBS	8.00	124	20 - 150	
13C3-PFHXS	8.00	120	20 - 150	
13C8-PFOS	8.00	127	20 - 150	
13C2-4:2FTS	16.0	124	20 - 150	
13C2-6:2FTS	16.0	127	20 - 150	
13C2-8:2FTS	16.0	136	20 - 150	
13C8-PFOSA	8.00	114	20 - 150	
D5-NETFOSA	8.00	71.2	20 - 150	
D3-NMEFOSA	8.00	67.2	20 - 150	
D3-NMEFOSAA	16.0	107	20 - 150	
D5-NETFOSAA	16.0	124	20 - 150	
D7-NMEFOSE	80.0	87.2	20 - 150	
D9-NETFOSE	80.0	94.6	20 - 150	
13C3-HFPO-DA	32.0	132	20 - 150	

## SURROGATE SUMMARY SHEET

EPA 1633

Client: AECOM  
 Work Order: 22L0083  
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
<b>LCS (BBL0295-BS1) . ng/L</b>				
	Lab File ID: S2022-12-14A (42)			Analyzed: 12/14/22 20:02
13C4-PFBA	32.0	131	20 - 150	
13C5-PFPEA	16.0	123	20 - 150	
13C5-PFHXA	8.00	128	20 - 150	
13C4-PFHPA	8.00	123	20 - 150	
13C8-PFOA	8.00	132	20 - 150	
13C9-PFNA	4.00	138	20 - 150	
13C6-PFDA	4.00	144	20 - 150	
13C7-PFUnA	4.00	175	20 - 150	*
13C2-PFDOA	4.00	136	20 - 150	
13C2-PFTEDA	4.00	138	20 - 150	
13C3-PFBS	8.00	126	20 - 150	
13C3-PFHXS	8.00	132	20 - 150	
13C8-PFOS	8.00	123	20 - 150	
13C2-4:2FTS	16.0	131	20 - 150	
13C2-6:2FTS	16.0	128	20 - 150	
13C2-8:2FTS	16.0	123	20 - 150	
13C8-PFOSA	8.00	131	20 - 150	
D5-NETFOSA	8.00	73.9	20 - 150	
D3-NMEFOSA	8.00	64.3	20 - 150	
D3-NMEFOSAA	16.0	123	20 - 150	
D5-NETFOSAA	16.0	146	20 - 150	
D7-NMEFOSE	80.0	95.8	20 - 150	
D9-NETFOSSE	80.0	96.5	20 - 150	
13C3-HFPO-DA	32.0	119	20 - 150	

## SURROGATE SUMMARY SHEET

EPA 1633

Client: AECOM  
 Work Order: 22L0083  
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
<b>MRL Check (BBL0295-MRL1) . ng/L</b>	Lab File ID: S2022-12-14A (43)		Analyzed: 12/14/22 20:15	
13C4-PFBA	32.0	132	20 - 150	
13C5-PFPEA	16.0	110	20 - 150	
13C5-PFHXA	8.00	115	20 - 150	
13C4-PFHPA	8.00	125	20 - 150	
13C8-PFOA	8.00	135	20 - 150	
13C9-PFNA	4.00	112	20 - 150	
13C6-PFDA	4.00	115	20 - 150	
13C7-PFUnA	4.00	152	20 - 150	*
13C2-PFDOA	4.00	108	20 - 150	
13C2-PFTEDA	4.00	129	20 - 150	
13C3-PFBS	8.00	120	20 - 150	
13C3-PFHXS	8.00	128	20 - 150	
13C8-PFOS	8.00	122	20 - 150	
13C2-4:2FTS	16.0	125	20 - 150	
13C2-6:2FTS	16.0	132	20 - 150	
13C2-8:2FTS	16.0	132	20 - 150	
13C8-PFOSA	8.00	106	20 - 150	
D5-NETFOSA	8.00	51.0	20 - 150	
D3-NMEFOSA	8.00	49.9	20 - 150	
D3-NMEFOSAA	16.0	114	20 - 150	
D5-NETFOSAA	16.0	139	20 - 150	
D7-NMEFOSE	80.0	80.1	20 - 150	
D9-NETFOSE	80.0	83.4	20 - 150	
13C3-HFPO-DA	32.0	114	20 - 150	

# SURROGATE SUMMARY SHEET

EPA 1633

Client: AECOM  
 Work Order: 22L0083  
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
AF-HDMW225303-WGN01B-2212W2 (22L0083-01) ng/L		Lab File ID: S2022-12-14A (51)		Analyzed: 12/14/22 21:56
13C4-PFBA	326	136	20 - 150	
13C5-PFPEA	163	128	20 - 150	
13C5-PFHXA	81.5	137	20 - 150	
13C4-PFHFA	81.5	123	20 - 150	
13C8-PFOA	81.5	147	20 - 150	
13C9-PFNA	40.8	120	20 - 150	
13C6-PFDA	40.8	147	20 - 150	
13C7-PFUnA	40.8	138	20 - 150	
13C2-PFDOA	40.8	130	20 - 150	
13C2-PFTEDA	40.8	121	20 - 150	
13C3-PFBS	81.5	134	20 - 150	
13C3-PFHXS	81.5	129	20 - 150	
13C8-PFOS	81.5	123	20 - 150	
13C2-4:2FTS	163	132	20 - 150	
13C2-6:2FTS	163	133	20 - 150	
13C2-8:2FTS	163	123	20 - 150	
13C8-PFOSA	81.5	104	20 - 150	
D5-NETFOSA	81.5	86.5	20 - 150	
D3-NMEFOSA	81.5	88.7	20 - 150	
D3-NMEFOSAA	163	120	20 - 150	
D5-NETFOSAA	163	147	20 - 150	
D7-NMEFOSE	815	89.2	20 - 150	
D9-NETFOSE	815	95.8	20 - 150	
13C3-HFPO-DA	326	131	20 - 150	



## SURROGATE SUMMARY SHEET

EPA 1633

Client: AECOM  
 Work Order: 22L0083  
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
<b>Blank (BBL0300-BLK1) . ng/L</b>				
		Lab File ID: S2022-12-14A (48)		Analyzed: 12/14/22 21:18
13C4-PFBA	320	135	20 - 150	
13C5-PFPEA	160	122	20 - 150	
13C5-PFHXA	80.0	138	20 - 150	
13C4-PFHPA	80.0	121	20 - 150	
13C8-PFOA	80.0	125	20 - 150	
13C9-PFNA	40.0	127	20 - 150	
13C6-PFDA	40.0	112	20 - 150	
13C7-PFUnA	40.0	111	20 - 150	
13C2-PFDOA	40.0	117	20 - 150	
13C2-PFTEDA	40.0	120	20 - 150	
13C3-PFBS	80.0	131	20 - 150	
13C3-PFHXS	80.0	123	20 - 150	
13C8-PFOS	80.0	128	20 - 150	
13C2-4:2FTS	160	129	20 - 150	
13C2-6:2FTS	160	120	20 - 150	
13C2-8:2FTS	160	132	20 - 150	
13C8-PFOSA	80.0	109	20 - 150	
D5-NETFOSA	80.0	72.1	20 - 150	
D3-NMEFOSA	80.0	69.3	20 - 150	
D3-NMEFOSAA	160	112	20 - 150	
D5-NETFOSAA	160	125	20 - 150	
D7-NMEFOSE	800	90.7	20 - 150	
D9-NETFOSE	800	103	20 - 150	
13C3-HFPO-DA	320	126	20 - 150	

## SURROGATE SUMMARY SHEET

EPA 1633

Client: AECOM  
 Work Order: 22L0083  
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
<b>LCS (BBL0300-BS1) . ng/L</b>				
		Lab File ID: S2022-12-14A (49)		Analyzed: 12/14/22 21:31
13C4-PFBA	320	116	20 - 150	
13C5-PFPEA	160	126	20 - 150	
13C5-PFHXA	80.0	132	20 - 150	
13C4-PFHPA	80.0	122	20 - 150	
13C8-PFOA	80.0	125	20 - 150	
13C9-PFNA	40.0	109	20 - 150	
13C6-PFDA	40.0	147	20 - 150	
13C7-PFUnA	40.0	151	20 - 150	*
13C2-PFDOA	40.0	145	20 - 150	
13C2-PFTEDA	40.0	121	20 - 150	
13C3-PFBS	80.0	131	20 - 150	
13C3-PFHXS	80.0	139	20 - 150	
13C8-PFOS	80.0	114	20 - 150	
13C2-4:2FTS	160	139	20 - 150	
13C2-6:2FTS	160	131	20 - 150	
13C2-8:2FTS	160	122	20 - 150	
13C8-PFOSA	80.0	94.0	20 - 150	
D5-NETFOSA	80.0	67.4	20 - 150	
D3-NMEFOSA	80.0	61.4	20 - 150	
D3-NMEFOSAA	160	106	20 - 150	
D5-NETFOSAA	160	114	20 - 150	
D7-NMEFOSE	800	70.2	20 - 150	
D9-NETFOSSE	800	77.9	20 - 150	
13C3-HFPO-DA	320	126	20 - 150	

# SURROGATE SUMMARY SHEET

EPA 1633

Client: AECOM  
 Work Order: 22L0083  
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
<b>MRL Check (BBL0300-MRL1) . ng/L</b>	Lab File ID: S2022-12-14A (50)			Analyzed: 12/14/22 21:44
13C4-PFBA	320	125	20 - 150	
13C5-PFPEA	160	119	20 - 150	
13C5-PFHXA	80.0	122	20 - 150	
13C4-PFHPA	80.0	119	20 - 150	
13C8-PFOA	80.0	132	20 - 150	
13C9-PFNA	40.0	124	20 - 150	
13C6-PFDA	40.0	115	20 - 150	
13C7-PFUnA	40.0	124	20 - 150	
13C2-PFDOA	40.0	114	20 - 150	
13C2-PFTEDA	40.0	140	20 - 150	
13C3-PFBS	80.0	120	20 - 150	
13C3-PFHXS	80.0	128	20 - 150	
13C8-PFOS	80.0	115	20 - 150	
13C2-4:2FTS	160	129	20 - 150	
13C2-6:2FTS	160	138	20 - 150	
13C2-8:2FTS	160	141	20 - 150	
13C8-PFOSA	80.0	117	20 - 150	
D5-NETFOSA	80.0	79.3	20 - 150	
D3-NMEFOSA	80.0	67.4	20 - 150	
D3-NMEFOSAA	160	109	20 - 150	
D5-NETFOSAA	160	110	20 - 150	
D7-NMEFOSE	800	108	20 - 150	
D9-NETFOSE	800	99.7	20 - 150	
13C3-HFPO-DA	320	130	20 - 150	

## SURROGATE SUMMARY SHEET

EPA 1633

Client: AECOM  
 Work Order: 22L0083  
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
<b>AF-RHMW03-WGN01LF-2212W2 (22L0083-02RE2) . ng/L</b> Lab File ID: S2022-12-20A (18) Analyzed: 12/20/22 13:41				
13C8-PFOS	7.23	79.7	20 - 150	
13C2-6:2FTS	14.5	139	20 - 150	
<b>AF-RHMW02-WGN01LF-2212W2 (22L0083-03RE2) . ng/L</b> Lab File ID: S2022-12-20A (20) Analyzed: 12/20/22 14:07				
13C8-PFOS	7.34	86.7	20 - 150	
13C2-6:2FTS	14.7	129	20 - 150	
<b>Blank (BBL0355-BLK1) . ng/L</b> Lab File ID: S2022-12-20A (11) Analyzed: 12/20/22 12:12				
13C4-PFBA	32.0	98.5	20 - 150	
13C5-PFPEA	16.0	104	20 - 150	
13C5-PFHXA	8.00	104	20 - 150	
13C4-PFHPA	8.00	91.2	20 - 150	
13C8-PFOA	8.00	86.8	20 - 150	
13C9-PFNA	4.00	93.4	20 - 150	
13C6-PFDA	4.00	99.8	20 - 150	
13C7-PFUnA	4.00	108	20 - 150	
13C2-PFDOA	4.00	99.5	20 - 150	
13C2-PFTEDA	4.00	112	20 - 150	
13C3-PFBS	8.00	98.6	20 - 150	
13C3-PFHXS	8.00	91.7	20 - 150	
13C8-PFOS	8.00	106	20 - 150	
13C2-4:2FTS	16.0	109	20 - 150	
13C2-6:2FTS	16.0	99.4	20 - 150	
13C2-8:2FTS	16.0	111	20 - 150	
13C8-PFOSA	8.00	98.3	20 - 150	
D5-NETFOSA	8.00	56.3	20 - 150	
D3-NMEFOSA	8.00	55.3	20 - 150	
D3-NMEFOSAA	16.0	104	20 - 150	
D5-NETFOSAA	16.0	117	20 - 150	
D7-NMEFOSE	80.0	94.7	20 - 150	
D9-NETFOSSE	80.0	94.5	20 - 150	
13C3-HFPO-DA	32.0	99.3	20 - 150	

# SURROGATE SUMMARY SHEET

EPA 1633

Client: AECOM  
 Work Order: 22L0083  
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
<b>LCS (BBL0355-BS1) . ng/L</b>	Lab File ID: S2022-12-20A (12)			Analyzed: 12/20/22 12:25
13C4-PFBA	32.0	98.0	20 - 150	
13C5-PFPEA	16.0	92.6	20 - 150	
13C5-PFHXA	8.00	92.8	20 - 150	
13C4-PFHFA	8.00	93.9	20 - 150	
13C8-PFOA	8.00	102	20 - 150	
13C9-PFNA	4.00	102	20 - 150	
13C6-PFDA	4.00	97.7	20 - 150	
13C7-PFUnA	4.00	110	20 - 150	
13C2-PFDOA	4.00	112	20 - 150	
13C2-PFTEDA	4.00	122	20 - 150	
13C3-PFBS	8.00	110	20 - 150	
13C3-PFHXS	8.00	106	20 - 150	
13C8-PFOS	8.00	92.7	20 - 150	
13C2-4:2FTS	16.0	109	20 - 150	
13C2-6:2FTS	16.0	104	20 - 150	
13C2-8:2FTS	16.0	91.7	20 - 150	
13C8-PFOSA	8.00	104	20 - 150	
D5-NETFOSA	8.00	61.0	20 - 150	
D3-NMEFOSA	8.00	66.9	20 - 150	
D3-NMEFOSAA	16.0	106	20 - 150	
D5-NETFOSAA	16.0	122	20 - 150	
D7-NMEFOSE	80.0	92.4	20 - 150	
D9-NETFOSE	80.0	88.5	20 - 150	
13C3-HFPO-DA	32.0	91.4	20 - 150	

## SURROGATE SUMMARY SHEET

EPA 1633

Client: AECOM  
 Work Order: 22L0083  
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
<b>MRL Check (BBL0355-MRL1) . ng/L</b>	Lab File ID: S2022-12-20A (37)		Analyzed: 12/20/22 19:04	
13C4-PFBA	32.0	99.3	20 - 150	
13C5-PFPEA	16.0	92.3	20 - 150	
13C5-PFHXA	8.00	88.7	20 - 150	
13C4-PFHPA	8.00	79.5	20 - 150	
13C8-PFOA	8.00	91.5	20 - 150	
13C9-PFNA	4.00	115	20 - 150	
13C6-PFDA	4.00	92.2	20 - 150	
13C7-PFUnA	4.00	107	20 - 150	
13C2-PFDOA	4.00	96.0	20 - 150	
13C2-PFTEDA	4.00	88.4	20 - 150	
13C3-PFBS	8.00	97.6	20 - 150	
13C3-PFHXS	8.00	96.4	20 - 150	
13C8-PFOS	8.00	91.9	20 - 150	
13C2-4:2FTS	16.0	105	20 - 150	
13C2-6:2FTS	16.0	92.7	20 - 150	
13C2-8:2FTS	16.0	97.0	20 - 150	
13C8-PFOSA	8.00	98.6	20 - 150	
D5-NETFOSA	8.00	62.8	20 - 150	
D3-NMEFOSA	8.00	58.5	20 - 150	
D3-NMEFOSAA	16.0	105	20 - 150	
D5-NETFOSAA	16.0	115	20 - 150	
D7-NMEFOSE	80.0	83.0	20 - 150	
D9-NETFOSE	80.0	79.2	20 - 150	
13C3-HFPO-DA	32.0	91.2	20 - 150	

## SURROGATE SUMMARY SHEET

EPA 1633

Client: AECOM  
 Work Order: 22L0083  
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
<b>AF-HDMW225303-WGN01B-2212W2 (22L0083-01RE2) . n</b> Lab File ID: S2022-12-20A (9)				
13C8-PFOS	82.7	95.0	20 - 150	Analyzed: 12/20/22 11:47
<b>Blank (BBL0357-BLK1) . ng/L</b> Lab File ID: S2022-12-20A (6)				
13C4-PFBA	32.0	95.7	20 - 150	Analyzed: 12/20/22 11:09
13C5-PFPEA	16.0	92.3	20 - 150	
13C5-PFHXA	8.00	104	20 - 150	
13C4-PFHPA	8.00	83.3	20 - 150	
13C8-PFOA	8.00	106	20 - 150	
13C9-PFNA	4.00	93.7	20 - 150	
13C6-PFDA	4.00	85.1	20 - 150	
13C7-PFUnA	4.00	105	20 - 150	
13C2-PFDOA	4.00	96.7	20 - 150	
13C2-PFTEDA	4.00	76.5	20 - 150	
13C3-PFBS	8.00	98.6	20 - 150	
13C3-PFHXS	8.00	106	20 - 150	
13C8-PFOS	8.00	104	20 - 150	
13C2-4:2FTS	16.0	111	20 - 150	
13C2-6:2FTS	16.0	94.8	20 - 150	
13C2-8:2FTS	16.0	76.3	20 - 150	
13C8-PFOSA	8.00	88.2	20 - 150	
D5-NETFOSA	8.00	58.2	20 - 150	
D3-NMEFOSA	8.00	55.1	20 - 150	
D3-NMEFOSAA	16.0	90.0	20 - 150	
D5-NETFOSAA	16.0	104	20 - 150	
D7-NMEFOSE	80.0	76.6	20 - 150	
D9-NETFOSE	80.0	73.0	20 - 150	
13C3-HFPO-DA	32.0	94.2	20 - 150	

# SURROGATE SUMMARY SHEET

EPA 1633

Client: AECOM  
 Work Order: 22L0083  
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
<b>LCS (BBL0357-BS1) . ng/L</b>	Lab File ID: S2022-12-20A (7)			Analyzed: 12/20/22 11:21
13C4-PFBA	32.0	101	20 - 150	
13C5-PFPEA	16.0	94.5	20 - 150	
13C5-PFHXA	8.00	101	20 - 150	
13C4-PFHPA	8.00	88.8	20 - 150	
13C8-PFOA	8.00	94.7	20 - 150	
13C9-PFNA	4.00	105	20 - 150	
13C6-PFDA	4.00	95.7	20 - 150	
13C7-PFUnA	4.00	132	20 - 150	
13C2-PFDOA	4.00	100	20 - 150	
13C2-PFTEDA	4.00	124	20 - 150	
13C3-PFBS	8.00	108	20 - 150	
13C3-PFHXS	8.00	109	20 - 150	
13C8-PFOS	8.00	90.9	20 - 150	
13C2-4:2FTS	16.0	122	20 - 150	
13C2-6:2FTS	16.0	91.2	20 - 150	
13C2-8:2FTS	16.0	102	20 - 150	
13C8-PFOSA	8.00	83.3	20 - 150	
D5-NETFOSA	8.00	50.7	20 - 150	
D3-NMEFOSA	8.00	49.9	20 - 150	
D3-NMEFOSAA	16.0	82.3	20 - 150	
D5-NETFOSAA	16.0	93.8	20 - 150	
D7-NMEFOSE	80.0	68.6	20 - 150	
D9-NETFOSE	80.0	63.0	20 - 150	
13C3-HFPO-DA	32.0	90.9	20 - 150	



## SURROGATE SUMMARY SHEET

EPA 1633

Client: AECOM  
 Work Order: 22L0083  
 Project: Red Hill AFFF Assessment Sampling

Surrogate Compound	Spike level	% Recovery	Recovery Limits	Q
<b>MRL Check (BBL0357-MRL1) . ng/L</b>				
		Lab File ID: S2022-12-20A (8)		Analyzed: 12/20/22 11:34
13C4-PFBA	32.0	96.2	20 - 150	
13C5-PFPEA	16.0	94.4	20 - 150	
13C5-PFHXA	8.00	93.4	20 - 150	
13C4-PFHPA	8.00	96.1	20 - 150	
13C8-PFOA	8.00	89.9	20 - 150	
13C9-PFNA	4.00	95.9	20 - 150	
13C6-PFDA	4.00	101	20 - 150	
13C7-PFUnA	4.00	102	20 - 150	
13C2-PFDOA	4.00	93.8	20 - 150	
13C2-PFTEDA	4.00	94.4	20 - 150	
13C3-PFBS	8.00	98.3	20 - 150	
13C3-PFHXS	8.00	100	20 - 150	
13C8-PFOS	8.00	97.2	20 - 150	
13C2-4:2FTS	16.0	93.1	20 - 150	
13C2-6:2FTS	16.0	99.9	20 - 150	
13C2-8:2FTS	16.0	104	20 - 150	
13C8-PFOSA	8.00	91.8	20 - 150	
D5-NETFOSA	8.00	64.5	20 - 150	
D3-NMEFOSA	8.00	62.6	20 - 150	
D3-NMEFOSAA	16.0	89.8	20 - 150	
D5-NETFOSAA	16.0	104	20 - 150	
D7-NMEFOSE	80.0	81.3	20 - 150	
D9-NETFOSE	80.0	81.9	20 - 150	
13C3-HFPO-DA	32.0	99.9	20 - 150	

# METHOD BLANK SUMMARY

## EPA 1633

Laboratory: APPL, LLC

Work Order: 22L0083

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Blank ID: BBL0295-BLK1

Batch: BBL0295

Prepared: 12/14/2022 08:54

Client Sample ID	Laboratory Sample ID	Lab File ID	Time Analyzed
LCS	BBL0295-BS1	S2022-12-14A (42)	20:02
MRL Check	BBL0295-MRL1	S2022-12-14A (43)	20:15
AF-RHMW03-WGN01LF-2212W2	22L0083-02	S2022-12-14A (44)	20:27
DF 10	22L0083-02RE1	S2022-12-14A (45)	20:40
AF-RHMW02-WGN01LF-2212W2	22L0083-03	S2022-12-14A (46)	20:53
DF 10	22L0083-03RE1	S2022-12-14A (47)	21:06

# METHOD BLANK SUMMARY

## EPA 1633

Laboratory: APPL, LLC    Work Order: 22L0083  
Client: AECOM    Project: Red Hill AFFF Assessment Sampling  
Blank ID: BBL0300-BLK1    Batch: BBL0300    Prepared: 12/14/2022 11:09

Client Sample ID	Laboratory Sample ID	Lab File ID	Time Analyzed
LCS	BBL0300-BS1	S2022-12-14A (49)	21:31
MRL Check	BBL0300-MRL1	S2022-12-14A (50)	21:44
AF-HDMW225303-WGN01B-2212W2	22L0083-01	S2022-12-14A (51)	21:56

**METHOD BLANK SUMMARY****EPA 1633**

Laboratory: APPL, LLC Work Order: 22L0083  
 Client: AECOM Project: Red Hill AFFF Assessment Sampling  
 Blank ID: BBL0355-BLK1 Batch: BBL0355 Prepared: 12/19/2022 08:59

<b>Client Sample ID</b>	<b>Laboratory Sample ID</b>	<b>Lab File ID</b>	<b>Time Analyzed</b>
LCS	BBL0355-BS1	S2022-12-20A (12)	12:25
AF-RHMW03-WGN01LF-2212W2	22L0083-02RE2	S2022-12-20A (18)	13:41
AF-RHMW02-WGN01LF-2212W2	22L0083-03RE2	S2022-12-20A (20)	14:07
MRL Check	BBL0355-MRL1	S2022-12-20A (37)	19:04



# ANALYSIS DATA SHEET

Blank

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0295-BLK1
Sampled:		Prepared:	12/14/22 08:54
Solids:		Preparation:	1633
Batch:	BBL0295	Sequence:	SB03835
Column:	1	Calibration:	2251013
		Instrument:	Saphira
		File ID:	S2022-12-14A (41)
		Analyzed:	12/14/22 19:49
		Dilution:	1

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
PFBA	0.80 U	1.6	0.80	0.21	U
PFPEA	0.40 U	0.80	0.40	0.065	U
PFHXA	0.20 U	0.40	0.20	0.055	IR2, U
PFHPA	0.20 U	0.40	0.20	0.041	U
PFOA	0.20 U	0.40	0.20	0.15	U
PFNA	0.20 U	0.40	0.20	0.082	U
PFDA	0.20 U	0.40	0.20	0.10	U
PFUnA	0.20 U	0.40	0.20	0.16	U
PFDOA	0.20 U	0.40	0.20	0.11	U
PFTRDA	0.30 U	0.40	0.30	0.20	U
PFTEDA	0.20 U	0.40	0.20	0.20	U
PFBS	0.20 U	0.40	0.20	0.037	U
PFPEs	0.20 U	0.40	0.20	0.063	U
PFHXS	0.0457 J	0.40	0.20	0.032	J
PFHPS	0.20 U	0.40	0.20	0.051	U
PFOS	1.11	0.40	0.20	0.064	B
PFNS	0.20 U	0.40	0.20	0.12	U
PFDS	0.20 U	0.40	0.20	0.15	U
PFDOS	0.20 U	0.40	0.20	0.12	U
4:2FTS	0.80 U	1.6	0.80	0.29	U
6:2FTS	0.80 U	1.6	0.80	0.31	U
8:2FTS	0.80 U	1.6	0.80	0.082	U
PFOSA	0.20 U	0.40	0.20	0.10	U
NMeFOSA	0.80 U	1.6	0.80	0.47	U
NEtFOSA	0.80 U	1.6	0.80	0.41	U
NMeFOSAA	0.20 U	0.40	0.20	0.11	U
NEtFOSAA	0.20 U	0.40	0.20	0.11	U
NMeFOSE	1.2 U	1.6	1.2	1.0	U
NEtFOSE	1.2 U	1.6	1.2	1.0	U
HFPO-DA	0.40 U	0.80	0.40	0.17	U

**ANALYSIS DATA SHEET**

Blank

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0295-BLK1
Sampled:		Prepared:	12/14/22 08:54
Solids:		Preparation:	1633
Batch:	BBL0295	Sequence:	SB03835
Column:	1	Calibration:	2251013
			Instrument: Saphira
			File ID: S2022-12-14A (41)
			Analyzed: 12/14/22 19:49
			Dilution: 1

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
ADONA	0.40 U	0.80	0.40	0.12	U
PFEESA	0.40 U	0.80	0.40	0.11	U
PFMPA	0.40 U	0.80	0.40	0.054	U
PFMBA	0.40 U	0.80	0.40	0.091	U
NFDHA	0.40 U	0.80	0.40	0.30	U
9CL-PF3ONS	0.40 U	0.80	0.40	0.21	U
11CL-PF3OUDS	0.40 U	0.80	0.40	0.21	U
3:3FTCA	0.80 U	1.6	0.80	0.57	U
5:3FTCA	0.80 U	1.6	0.80	0.44	U
7:3FTCA	0.80 U	1.6	0.80	0.55	U

# ANALYSIS DATA SHEET

Blank

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0300-BLK1
Sampled:		Prepared:	12/14/22 11:09
Solids:		Preparation:	1633
Batch:	BBL0300	Sequence:	SB03835
Column:	1	Calibration:	2251013
		Instrument:	Saphira
		File ID:	S2022-12-14A (48)
		Analyzed:	12/14/22 21:18
		Dilution:	1

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
PFBA	8.0 U	16	8.0	2.1	U
PFPEA	4.0 U	8.0	4.0	0.65	U
PFHXA	2.0 U	4.0	2.0	0.55	U
PFHPA	2.0 U	4.0	2.0	0.41	U
PFOA	2.0 U	4.0	2.0	1.5	U
PFNA	2.0 U	4.0	2.0	0.82	U
PFDA	2.0 U	4.0	2.0	1.0	U
PFUnA	2.0 U	4.0	2.0	1.6	U
PFDOA	2.0 U	4.0	2.0	1.1	U
PFTRDA	3.0 U	4.0	3.0	2.0	U
PFTEDA	2.0 U	4.0	2.0	2.0	U
PFBS	2.0 U	4.0	2.0	0.37	U
PFPEs	2.0 U	4.0	2.0	0.63	U
PFHXS	2.0 U	4.0	2.0	0.32	U
PFHPS	2.0 U	4.0	2.0	0.51	U
PFOS	7.88	4.0	2.0	0.64	B
PFNS	2.0 U	4.0	2.0	1.2	U
PFDS	2.0 U	4.0	2.0	1.5	U
PFDOS	2.0 U	4.0	2.0	1.2	U
4:2FTS	8.0 U	16	8.0	2.9	U
6:2FTS	8.0 U	16	8.0	3.1	U
8:2FTS	8.0 U	16	8.0	0.82	U
PFOSA	5.43	4.0	2.0	1.0	B
NMeFOSA	8.0 U	16	8.0	4.7	U
NEtFOSA	8.0 U	16	8.0	4.1	U
NMeFOSAA	2.0 U	4.0	2.0	1.1	U
NEtFOSAA	2.0 U	4.0	2.0	1.1	U
NMeFOSE	12 U	16	12	10	U
NEtFOSE	12 U	16	12	10	U
HFPO-DA	4.0 U	8.0	4.0	1.7	U



**ANALYSIS DATA SHEET**

Blank

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0300-BLK1
Sampled:		Prepared:	12/14/22 11:09
Solids:		Preparation:	1633
Batch:	BBL0300	Sequence:	SB03835
Column:	1	Calibration:	2251013
		File ID:	S2022-12-14A (48)
		Analyzed:	12/14/22 21:18
		Dilution:	1
		Instrument:	Saphira

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
ADONA	4.0 U	8.0	4.0	1.2	U
PFEESA	4.0 U	8.0	4.0	1.1	U
PFMPA	4.0 U	8.0	4.0	0.54	U
PFMBA	4.0 U	8.0	4.0	0.91	U
NFDHA	4.0 U	8.0	4.0	3.0	U
9CL-PF3ONS	4.0 U	8.0	4.0	2.1	U
11CL-PF3OUDS	4.0 U	8.0	4.0	2.1	U
3:3FTCA	8.0 U	16	8.0	5.7	U
5:3FTCA	8.0 U	16	8.0	4.4	U
7:3FTCA	8.0 U	16	8.0	5.5	U

# ANALYSIS DATA SHEET

Blank

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0355-BLK1
Sampled:		Prepared:	12/19/22 08:59
Solids:		Preparation:	1633
Batch:	BBL0355	Sequence:	SB03903
Column:	1	Calibration:	2251019
		Instrument:	Saphira
		File ID:	S2022-12-20A (11)
		Analyzed:	12/20/22 12:12
		Dilution:	1

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
PFBA	0.80 U	1.6	0.80	0.21	U
PFPEA	0.40 U	0.80	0.40	0.065	U
PFHXA	0.20 U	0.40	0.20	0.055	U
PFHPA	0.20 U	0.40	0.20	0.041	U
PFOA	0.20 U	0.40	0.20	0.15	U
PFNA	0.20 U	0.40	0.20	0.082	U
PFDA	0.20 U	0.40	0.20	0.10	U
PFUnA	0.20 U	0.40	0.20	0.16	U
PFDOA	0.20 U	0.40	0.20	0.11	U
PFTRDA	0.30 U	0.40	0.30	0.20	U
PFTEDA	0.20 U	0.40	0.20	0.20	U
PFBS	0.20 U	0.40	0.20	0.037	U
PFPEs	0.20 U	0.40	0.20	0.063	U
PFHXS	0.20 U	0.40	0.20	0.032	U
PFHPS	0.20 U	0.40	0.20	0.051	U
PFOS	0.0827 J	0.40	0.20	0.064	J
PFNS	0.20 U	0.40	0.20	0.12	U
PFDS	0.20 U	0.40	0.20	0.15	U
PFDOS	0.20 U	0.40	0.20	0.12	U
4:2FTS	0.80 U	1.6	0.80	0.29	U
6:2FTS	0.80 U	1.6	0.80	0.31	U
8:2FTS	0.80 U	1.6	0.80	0.082	U
PFOSA	0.20 U	0.40	0.20	0.10	U
NMeFOSA	0.80 U	1.6	0.80	0.47	U
NEtFOSA	0.80 U	1.6	0.80	0.41	U
NMeFOSAA	0.20 U	0.40	0.20	0.11	U
NEtFOSAA	0.20 U	0.40	0.20	0.11	U
NMeFOSE	1.2 U	1.6	1.2	1.0	U
NEtFOSE	1.2 U	1.6	1.2	1.0	U
HFPO-DA	0.40 U	0.80	0.40	0.17	U

**ANALYSIS DATA SHEET**

Blank

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0355-BLK1
Sampled:		File ID:	S2022-12-20A (11)
Solids:		Prepared:	12/19/22 08:59
Batch:	BBL0355	Analyzed:	12/20/22 12:12
Column:	1	Preparation:	1633
		Dilution:	1
		Calibration:	2251019
		Instrument:	Saphira

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
ADONA	0.40 U	0.80	0.40	0.12	U
PFEESA	0.40 U	0.80	0.40	0.11	U
PFMPA	0.40 U	0.80	0.40	0.054	U
PFMBA	0.40 U	0.80	0.40	0.091	U
NFDHA	0.40 U	0.80	0.40	0.30	U
9CL-PF3ONS	0.40 U	0.80	0.40	0.21	U
11CL-PF3OUDS	0.40 U	0.80	0.40	0.21	U
3:3FTCA	0.80 U	1.6	0.80	0.57	U
5:3FTCA	0.80 U	1.6	0.80	0.44	U
7:3FTCA	0.80 U	1.6	0.80	0.55	U

# ANALYSIS DATA SHEET

Blank

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0357-BLK1
Sampled:		Prepared:	12/19/22 09:03
Solids:		Preparation:	1633
Batch:	BBL0357	Sequence:	SB03903
Column:	1	Calibration:	2251019
		Instrument:	Saphira
		File ID:	S2022-12-20A (6)
		Analyzed:	12/20/22 11:09
		Dilution:	1

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
PFBA	0.80 U	1.6	0.80	0.21	U
PFPEA	0.40 U	0.80	0.40	0.065	U
PFHXA	0.20 U	0.40	0.20	0.055	U
PFHPA	0.20 U	0.40	0.20	0.041	U
PFOA	0.20 U	0.40	0.20	0.15	U
PFNA	0.20 U	0.40	0.20	0.082	U
PFDA	0.20 U	0.40	0.20	0.10	U
PFUnA	0.20 U	0.40	0.20	0.16	U
PFDOA	0.20 U	0.40	0.20	0.11	U
PFTRDA	0.30 U	0.40	0.30	0.20	U
PFTEDA	0.20 U	0.40	0.20	0.20	U
PFBS	0.20 U	0.40	0.20	0.037	U
PFPEs	0.20 U	0.40	0.20	0.063	U
PFHXS	0.20 U	0.40	0.20	0.032	U
PFHPS	0.20 U	0.40	0.20	0.051	U
PFOS	0.0751 J	0.40	0.20	0.064	IR2, J
PFNS	0.20 U	0.40	0.20	0.12	U
PFDS	0.20 U	0.40	0.20	0.15	U
PFDOS	0.20 U	0.40	0.20	0.12	U
4:2FTS	0.80 U	1.6	0.80	0.29	U
6:2FTS	0.80 U	1.6	0.80	0.31	U
8:2FTS	0.80 U	1.6	0.80	0.082	U
PFOSA	0.20 U	0.40	0.20	0.10	U
NMeFOSA	0.80 U	1.6	0.80	0.47	U
NEtFOSA	0.80 U	1.6	0.80	0.41	U
NMeFOSAA	0.20 U	0.40	0.20	0.11	U
NEtFOSAA	0.20 U	0.40	0.20	0.11	U
NMeFOSE	1.2 U	1.6	1.2	1.0	U
NEtFOSE	1.2 U	1.6	1.2	1.0	U
HFPO-DA	0.40 U	0.80	0.40	0.17	U

**ANALYSIS DATA SHEET**

Blank

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0357-BLK1
Sampled:		Prepared:	12/19/22 09:03
Solids:		Preparation:	1633
Batch:	BBL0357	Sequence:	SB03903
Column:	1	Calibration:	2251019
			Instrument: Saphira

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
ADONA	0.40 U	0.80	0.40	0.12	U
PFEESA	0.40 U	0.80	0.40	0.11	U
PFMPA	0.40 U	0.80	0.40	0.054	U
PFMBA	0.40 U	0.80	0.40	0.091	U
NFDHA	0.40 U	0.80	0.40	0.30	U
9CL-PF3ONS	0.40 U	0.80	0.40	0.21	U
11CL-PF3OUDS	0.40 U	0.80	0.40	0.21	U
3:3FTCA	0.80 U	1.6	0.80	0.57	U
5:3FTCA	0.80 U	1.6	0.80	0.44	U
7:3FTCA	0.80 U	1.6	0.80	0.55	U

**LCS / LCS DUPLICATE RECOVERY**

EPA 1633

Laboratory: APPL, LLC

Work Order: 22L0083

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Matrix: Water

Preparation: 1633

Batch: BBL0295

Laboratory ID: BBL0295-BS1

Column:

<b>ANALYTE</b>	<b>SPIKE ADDED (ng/L)</b>	<b>LCS CONCENTRATION (ng/L)</b>	<b>LCS % REC.</b>	<b>QC LIMITS REC.</b>
PFBA	16.0	16.3	102	40 - 150
PFPEA	8.00	8.04	101	40 - 150
PFHXA	4.00	4.08	102	40 - 150
PFHPA	4.00	4.14	104	40 - 150
PFOA	4.00	3.88	97.1	40 - 150
PFNA	4.00	3.85	96.2	40 - 150
PFDA	4.00	3.89	97.4	40 - 150
PFUnA	4.00	3.57	89.2	40 - 150
PFDOA	4.00	4.29	107	40 - 150
PFTRDA	4.00	3.85	96.3	40 - 150
PFTEDA	4.00	4.16	104	40 - 150
PFBS	3.54	3.45	97.4	40 - 150
PFPEs	3.76	3.75	99.7	40 - 150
PFHXS	3.66	3.54	96.8	40 - 150
PFHPS	3.82	3.73	97.6	40 - 150
PFOS	3.72	4.53	122	40 - 150
PFNS	3.84	4.18	109	40 - 150
PFDS	3.86	3.59	93.0	40 - 150
PFDOS	3.88	3.95	102	40 - 150
4:2FTS	15.0	14.8	98.8	40 - 150
6:2FTS	15.2	15.2	100	40 - 150
8:2FTS	15.4	15.9	104	40 - 150
PFOSA	4.00	4.11	103	40 - 150
NMeFOSA	16.0	20.2	126	40 - 150
NEtFOSA	16.0	18.4	115	40 - 150
NMeFOSAA	4.00	4.20	105	40 - 150
NEtFOSAA	4.00	4.58	115	40 - 150
NMeFOSE	16.0	16.9	106	40 - 150
NEtFOSE	16.0	16.8	105	40 - 150
HFPO-DA	8.00	8.72	109	40 - 150
ADONA	7.56	7.70	102	40 - 150
PFEESA	7.12	7.25	102	40 - 150
PFMPA	8.00	7.94	99.2	40 - 150
PFMBA	8.00	7.31	91.4	40 - 150

**LCS / LCS DUPLICATE RECOVERY**

EPA 1633

Laboratory: APPL, LLC

Work Order: 22L0083

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Matrix: Water

Preparation: 1633

Batch: BBL0295

Laboratory ID: BBL0295-BS1

Column:

<b>ANALYTE</b>	<b>SPIKE ADDED (ng/L)</b>	<b>LCS CONCENTRATION (ng/L)</b>	<b>LCS % REC.</b>	<b>QC LIMITS REC.</b>
NFDHA	8.00	6.32	79.0	40 - 150
9CL-PF3ONS	7.48	7.35	98.2	40 - 150
11CL-PF3OUDS	7.56	8.36	111	40 - 150
3:3FTCA	16.0	15.6	97.7	40 - 150
5:3FTCA	16.0	17.0	106	40 - 150
7:3FTCA	16.0	15.0	93.9	40 - 150

**LCS / LCS DUPLICATE RECOVERY**

EPA 1633

Laboratory: APPL, LLC

Work Order: 22L0083

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Matrix: Water

Preparation: 1633

Batch: BBL0300

Laboratory ID: BBL0300-BS1

Column:

<b>ANALYTE</b>	<b>SPIKE ADDED (ng/L)</b>	<b>LCS CONCENTRATION (ng/L)</b>	<b>LCS % REC.</b>	<b>QC LIMITS REC.</b>
PFBA	160	173	108	40 - 150
PFPEA	80.0	85.1	106	40 - 150
PFHXA	40.0	41.7	104	40 - 150
PFHPA	40.0	44.6	112	40 - 150
PFOA	40.0	42.2	105	40 - 150
PFNA	40.0	49.8	125	40 - 150
PFDA	40.0	36.8	92.0	40 - 150
PFUnA	40.0	37.4	93.4	40 - 150
PFDOA	40.0	42.1	105	40 - 150
PFTRDA	40.0	40.1	100	40 - 150
PFTEDA	40.0	44.2	111	40 - 150
PFBS	35.4	35.6	101	40 - 150
PFPEs	37.6	37.2	98.9	40 - 150
PFHXS	36.6	34.3	93.7	40 - 150
PFHPS	38.2	39.4	103	40 - 150
PFOS	37.2	44.9	121	40 - 150
PFNS	38.4	39.2	102	40 - 150
PFDS	38.6	36.5	94.5	40 - 150
PFDOS	38.8	39.3	101	40 - 150
4:2FTS	150	151	100	40 - 150
6:2FTS	152	167	110	40 - 150
8:2FTS	154	185	121	40 - 150
PFOSA	40.0	47.9	120	40 - 150
NMeFOSA	160	222	139	40 - 150
NEtFOSA	160	218	136	40 - 150
NMeFOSAA	40.0	46.2	115	40 - 150
NEtFOSAA	40.0	46.9	117	40 - 150
NMeFOSE	160	176	110	40 - 150
NEtFOSE	160	161	101	40 - 150
HFPO-DA	80.0	83.2	104	40 - 150
ADONA	75.6	75.4	99.7	40 - 150
PFEESA	71.2	70.0	98.4	40 - 150
PFMPA	80.0	74.2	92.7	40 - 150
PFMBA	80.0	75.9	94.9	40 - 150



**LCS / LCS DUPLICATE RECOVERY**

EPA 1633

Laboratory: APPL, LLC

Work Order: 22L0083

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Matrix: Water

Preparation: 1633

Batch: BBL0300

Laboratory ID: BBL0300-BS1

Column:

<b>ANALYTE</b>	<b>SPIKE ADDED (ng/L)</b>	<b>LCS CONCENTRATION (ng/L)</b>	<b>LCS % REC.</b>	<b>QC LIMITS REC.</b>
NFDHA	80.0	87.8	110	40 - 150
9CL-PF3ONS	74.8	69.6	93.1	40 - 150
11CL-PF3OUDS	75.6	73.9	97.7	40 - 150
3:3FTCA	160	153	95.8	40 - 150
5:3FTCA	160	166	104	40 - 150
7:3FTCA	160	146	91.3	40 - 150

**LCS / LCS DUPLICATE RECOVERY**

EPA 1633

Laboratory: APPL, LLC

Work Order: 22L0083

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Matrix: Water

Preparation: 1633

Batch: BBL0355

Laboratory ID: BBL0355-BS1

Column:

<b>ANALYTE</b>	<b>SPIKE ADDED (ng/L)</b>	<b>LCS CONCENTRATION (ng/L)</b>	<b>LCS % REC.</b>	<b>QC LIMITS REC.</b>
PFBA	16.0	15.1	94.6	40 - 150
PFPEA	8.00	8.03	100	40 - 150
PFHXA	4.00	3.59	89.8	40 - 150
PFHPA	4.00	3.85	96.2	40 - 150
PFOA	4.00	4.29	107	40 - 150
PFNA	4.00	4.25	106	40 - 150
PFDA	4.00	4.58	115	40 - 150
PFUnA	4.00	4.33	108	40 - 150
PFDOA	4.00	3.66	91.5	40 - 150
PFTRDA	4.00	4.39	110	40 - 150
PFTEDA	4.00	3.25	81.3	40 - 150
PFBS	3.54	3.30	93.2	40 - 150
PFPEs	3.76	3.33	88.5	40 - 150
PFHXS	3.66	3.41	93.2	40 - 150
PFHPS	3.82	3.99	104	40 - 150
PFOS	3.72	3.96	107	40 - 150
PFNS	3.84	4.43	115	40 - 150
PFDS	3.86	4.05	105	40 - 150
PFDOS	3.88	4.01	103	40 - 150
4:2FTS	15.0	14.6	97.5	40 - 150
6:2FTS	15.2	14.4	94.5	40 - 150
8:2FTS	15.4	16.7	109	40 - 150
PFOSA	4.00	4.02	100	40 - 150
NMeFOSA	16.0	15.9	99.7	40 - 150
NEtFOSA	16.0	16.2	101	40 - 150
NMeFOSAA	4.00	3.46	86.5	40 - 150
NEtFOSAA	4.00	3.19	79.8	40 - 150
NMeFOSE	16.0	16.8	105	40 - 150
NEtFOSE	16.0	16.0	100	40 - 150
HFPO-DA	8.00	7.53	94.2	40 - 150
ADONA	7.56	7.08	93.7	40 - 150
PFEESA	7.12	6.79	95.3	40 - 150
PFMPA	8.00	7.30	91.2	40 - 150
PFMBA	8.00	7.58	94.7	40 - 150

**LCS / LCS DUPLICATE RECOVERY**

EPA 1633

Laboratory: APPL, LLC

Work Order: 22L0083

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Matrix: Water

Preparation: 1633

Batch: BBL0355

Laboratory ID: BBL0355-BS1

Column:

<b>ANALYTE</b>	<b>SPIKE ADDED (ng/L)</b>	<b>LCS CONCENTRATION (ng/L)</b>	<b>LCS % REC.</b>	<b>QC LIMITS REC.</b>
NFDHA	8.00	9.74	122	40 - 150
9CL-PF3ONS	7.48	7.76	104	40 - 150
11CL-PF3OUDS	7.56	6.75	89.2	40 - 150
3:3FTCA	16.0	14.6	91.5	40 - 150
5:3FTCA	16.0	14.8	92.7	40 - 150
7:3FTCA	16.0	15.0	93.5	40 - 150

**LCS / LCS DUPLICATE RECOVERY**

EPA 1633

Laboratory: APPL, LLC

Work Order: 22L0083

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Matrix: Water

Preparation: 1633

Batch: BBL0357

Laboratory ID: BBL0357-BS1

Column:

ANALYTE	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC.	QC LIMITS REC.
PFBA	16.0	15.1	94.5	40 - 150
PFPEA	8.00	8.16	102	40 - 150
PFHXA	4.00	3.78	94.4	40 - 150
PFHPA	4.00	3.97	99.3	40 - 150
PFOA	4.00	4.12	103	40 - 150
PFNA	4.00	4.50	112	40 - 150
PFDA	4.00	3.90	97.4	40 - 150
PFUnA	4.00	3.21	80.4	40 - 150
PFDOA	4.00	4.71	118	40 - 150
PFTRDA	4.00	4.49	112	40 - 150
PFTEDA	4.00	3.32	83.1	40 - 150
PFBS	3.54	3.52	99.5	40 - 150
PFPEs	3.76	3.46	92.0	40 - 150
PFHXS	3.66	3.36	91.7	40 - 150
PFHPS	3.82	3.12	81.6	40 - 150
PFOS	3.72	3.27	87.9	40 - 150
PFNS	3.84	3.42	89.0	40 - 150
PFDS	3.86	3.64	94.3	40 - 150
PFDOS	3.88	3.98	103	40 - 150
4:2FTS	15.0	14.5	96.4	40 - 150
6:2FTS	15.2	16.0	105	40 - 150
8:2FTS	15.4	15.9	103	40 - 150
PFOSA	4.00	3.90	97.4	40 - 150
NMeFOSA	16.0	15.6	97.5	40 - 150
NEtFOSA	16.0	16.4	103	40 - 150
NMeFOSAA	4.00	4.92	123	40 - 150
NEtFOSAA	4.00	3.40	85.0	40 - 150
NMeFOSE	16.0	16.8	105	40 - 150
NEtFOSE	16.0	16.8	105	40 - 150
HFPO-DA	8.00	8.04	100	40 - 150
ADONA	7.56	7.69	102	40 - 150
PFEESA	7.12	6.19	87.0	40 - 150
PFMPA	8.00	7.58	94.7	40 - 150
PFMBA	8.00	7.73	96.6	40 - 150

**LCS / LCS DUPLICATE RECOVERY**

EPA 1633

Laboratory: APPL, LLC

Work Order: 22L0083

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Matrix: Water

Preparation: 1633

Batch: BBL0357

Laboratory ID: BBL0357-BS1

Column:

<b>ANALYTE</b>	<b>SPIKE ADDED (ng/L)</b>	<b>LCS CONCENTRATION (ng/L)</b>	<b>LCS % REC.</b>	<b>QC LIMITS REC.</b>
NFDHA	8.00	6.32	79.0	40 - 150
9CL-PF3ONS	7.48	7.21	96.4	40 - 150
11CL-PF3OUDS	7.56	7.08	93.7	40 - 150
3:3FTCA	16.0	14.7	91.8	40 - 150
5:3FTCA	16.0	12.3	76.8	40 - 150
7:3FTCA	16.0	14.6	91.1	40 - 150

# CALIBRATION SUMMARY

Analyte	( Q1 / Q3 )	Internal Standard	Multiplier	AcidFactor	Function	Qualifier
PFBA	( 212.9 / 169.0 )	13C4_PFBA_EIS	4.0000	1.0000	y = 0.35123 x (std. dev. = 0.01656) (weighting: None)	%RSE=4.7
PFPeA	( 262.9 / 219.0 )	13C5_PFPeA_EIS	2.0000	1.0000	y = 0.44382 x (std. dev. = 0.01874) (weighting: None)	%RSE=4.2
PFHxA	( 313.0 / 269.0 )	13C5_PFHxA_EIS	1.0000	1.0000	y = 0.44310 x (std. dev. = 0.03853) (weighting: None)	%RSE=8.7
PFHpA	( 363.0 / 319.0 )	13C4_PFHpA_EIS	1.0000	1.0000	y = 0.46275 x (std. dev. = 0.02306) (weighting: None)	%RSE=5.0
PFOA	( 413.0 / 369.0 )	13C8_PFOA_EIS	1.0000	1.0000	y = 0.49965 x (std. dev. = 0.04947) (weighting: None)	%RSE=9.9
PFNA	( 463.0 / 419.0 )	13C9_PFNA_EIS	1.0000	1.0000	y = 0.91166 x (std. dev. = 0.06699) (weighting: None)	%RSE=7.3
PFDA	( 513.0 / 469.0 )	13C6_PFDA_EIS	1.0000	1.0000	y = 1.01114 x (std. dev. = 0.12432) (weighting: None)	%RSE=12.3
PFUnA	( 563.0 / 519.0 )	13C7_PFUnA_EIS	1.0000	1.0000	y = 0.86749 x (std. dev. = 0.03616) (weighting: None)	%RSE=4.2
PFDoA	( 613.0 / 569.0 )	13C2_PFDoA_EIS	1.0000	1.0000	y = 0.86599 x (std. dev. = 0.12682) (weighting: None)	%RSE=14.6
PFTeDA	( 663.0 / 619.0 )	13C2_PFDoA_EIS	1.0000	1.0000	y = 0.71396 x (std. dev. = 0.08230) (weighting: None)	%RSE=11.5
PFTeDA	( 713.0 / 669.0 )	13C2_PFTeDA_EIS	1.0000	1.0000	y = 0.91387 x (std. dev. = 0.08684) (weighting: None)	%RSE=9.5
PFBS	( 298.9 / 80.0 )	13C3_PFBS_EIS	1.0000	0.8847	y = 0.24995 x (std. dev. = 0.01576) (weighting: None)	%RSE=6.3
PFPeS	( 349.0 / 80.0 )	13C3_PFHxS_EIS	1.0000	0.9384	y = 0.82555 x (std. dev. = 0.07274) (weighting: None)	%RSE=8.8
PFHxS	( 399.0 / 80.0 )	13C3_PFHxS_EIS	1.0000	0.9110	y = 0.73156 x (std. dev. = 0.07037) (weighting: None)	%RSE=9.6
PFHpS	( 449.0 / 80.0 )	13C8_PFOS_EIS	1.0000	0.9514	y = 0.43043 x (std. dev. = 0.01521) (weighting: None)	%RSE=3.5
PFOS	( 499.0 / 80.0 )	13C8_PFOS_EIS	1.0000	0.9275	y = 0.50994 x (std. dev. = 0.04509) (weighting: None)	%RSE=8.8
PFNS	( 549.0 / 80.0 )	13C8_PFOS_EIS	1.0000	0.9599	y = 0.65025 x (std. dev. = 0.04019) (weighting: None)	%RSE=6.2
PFDS	( 599.0 / 80.0 )	13C8_PFOS_EIS	1.0000	0.9631	y = 0.85771 x (std. dev. = 0.06851) (weighting: None)	%RSE=8.0
PFDoS	( 698.9 / 80.0 )	13C8_PFOS_EIS	1.0000	0.9696	y = 0.43679 x (std. dev. = 0.02806) (weighting: None)	%RSE=6.4
4:2FTS	( 327.0 / 307.0 )	13C2_4:2FTS_EIS	4.0000	0.9345	y = 3.04722 x (std. dev. = 0.18703) (weighting: None)	%RSE=6.1
6:2FTS	( 427.0 / 407.0 )	13C2_6:2FTS_EIS	4.0000	0.9490	y = 1.54689 x (std. dev. = 0.15681) (weighting: None)	%RSE=10.1
8:2FTS	( 527.0 / 507.0 )	13C2_8:2FTS_EIS	4.0000	0.9583	y = 1.36477 x (std. dev. = 0.17884) (weighting: None)	%RSE=13.1
PFOSA	( 498.0 / 78.0 )	13C8_PFOSA_EIS	1.0000	1.0000	y = 0.49045 x (std. dev. = 0.04843) (weighting: None)	%RSE=9.9
NMeFOSA	( 511.9 / 219.0 )	D3_NMeFOSA_EIS	4.0000	1.0000	y = 1.66390 x (std. dev. = 0.18882) (weighting: None)	%RSE=11.3
NEiFOSA	( 526.0 / 219.0 )	D5_NEiFOSA_EIS	4.0000	1.0000	y = 1.84874 x (std. dev. = 0.11891) (weighting: None)	%RSE=6.4
NMeFOSAA	( 570.0 / 419.0 )	D3_MeFOSAA_EIS	1.0000	1.0000	y = 0.19326 x (std. dev. = 0.02299) (weighting: None)	%RSE=11.9
NEiFOSAA	( 584.0 / 419.0 )	D5_EiFOSAA_EIS	1.0000	1.0000	y = 0.21763 x (std. dev. = 0.01767) (weighting: None)	%RSE=8.1
NMeFOSE	( 616.1 / 59.0 )	D7_NMeFOSE_EIS	4.0000	1.0000	y = 0.26983 x (std. dev. = 0.03217) (weighting: None)	%RSE=11.9
NEiFOSE	( 630.0 / 59.0 )	D9_NEiFOSE_EIS	4.0000	1.0000	y = 0.13531 x (std. dev. = 0.01001) (weighting: None)	%RSE=7.4
HFPO-DA	( 285.0 / 169.0 )	13C3_HFPODA_EIS	2.0000	1.0000	y = 0.15460 x (std. dev. = 0.01149) (weighting: None)	%RSE=7.4
ADONA	( 377.0 / 85.0 )	13C3_HFPODA_EIS	2.0000	0.9427	y = 0.62152 x (std. dev. = 0.07199) (weighting: None)	%RSE=11.6
9Cl-Pf3ONS	( 531.0 / 351.0 )	13C3_HFPODA_EIS	2.0000	0.9333	y = 1.74461 x (std. dev. = 0.24485) (weighting: None)	%RSE=14.0
11Cl-Pf3OUDS	( 631.0 / 451.0 )	13C3_HFPODA_EIS	2.0000	0.9432	y = 1.12997 x (std. dev. = 0.08948) (weighting: None)	%RSE=7.9
3:3FTCA	( 241.0 / 177.0 )	13C5_PFPeA_EIS	4.0000	1.0000	y = 0.03730 x (std. dev. = 0.00171) (weighting: None)	%RSE=4.6
5:3FTCA	( 341.0 / 236.7 )	13C5_PFHxA_EIS	4.0000	1.0000	y = 0.35465 x (std. dev. = 0.04429) (weighting: None)	%RSE=12.5
7:3FTCA	( 441.0 / 317.0 )	13C5_PFHxA_EIS	4.0000	1.0000	y = 0.44373 x (std. dev. = 0.03580) (weighting: None)	%RSE=8.1
PFEESA	( 315.0 / 135.0 )	13C5_PFHxA_EIS	2.0000	0.8925	y = 0.86126 x (std. dev. = 0.07986) (weighting: None)	%RSE=9.3
PFMPA	( 229.0 / 85.0 )	13C5_PFPeA_EIS	2.0000	1.0000	y = 0.12048 x (std. dev. = 0.00716) (weighting: None)	%RSE=5.9
PFMBA	( 279.0 / 85.0 )	13C5_PFPeA_EIS	2.0000	1.0000	y = 0.40320 x (std. dev. = 0.02095) (weighting: None)	%RSE=5.2
NFDHA	( 201.0 / 85.0 )	13C5_PFHxA_EIS	2.0000	1.0000	y = 0.01797 x + 0.00111 (r = 0.99690) (weighting: 1 / x)	%RSE=12.9
13C3_PFBA_IIS	( 216.0 / 172.0 )	13C3_PFBA_IIS	1.0000	1.0000	y = 121332.9140 x	%RSD=8.3
13C2_PFHxA_IIS	( 315.1 / 270.0 )	13C2_PFHxA_IIS	1.0000	1.0000	y = 182484.4821 x	%RSD=5.9
13C4_PFOA_IIS	( 417.0 / 372.0 )	13C4_PFOA_IIS	1.0000	1.0000	y = 174565.7992 x	%RSD=4.7
13C5_PFNA_IIS	( 468.0 / 423.0 )	13C5_PFNA_IIS	1.0000	1.0000	y = 135886.7394 x	%RSD=5.9
13C2_PFDA_IIS	( 515.1 / 470.1 )	13C2_PFDA_IIS	1.0000	1.0000	y = 138756.1877 x	%RSD=4.9
18O2_PFHxS_IIS	( 403.0 / 83.9 )	18O2_PFHxS_IIS	1.0000	1.0000	y = 322739.0551 x	%RSD=6.5
13C4_PFOS_IIS	( 502.8 / 79.9 )	13C4_PFOS_IIS	1.0000	1.0000	y = 251821.1425 x	%RSD=7.6

Analyte	( Q1 / Q3 )	Internal Standard	Multiplier	AcidFactor	Function	Qualifier
13C4_PFBa_EIS	( 217.0 / 172.0 )	13C3_PFBa_IIS	8.0000	1.0000	y = 6.0981 x	%RSD=4.4
13C5_PFPaA_EIS	( 267.9 / 223.0 )	13C2_PFHxA_IIS	4.0000	1.0000	y = 2.2151 x	%RSD=5.5
13C5_PFHxA_EIS	( 318.0 / 273.0 )	13C2_PFHxA_IIS	2.0000	1.0000	y = 1.6855 x	%RSD=8.9
13C4_PFHpA_EIS	( 367.0 / 322.0 )	13C2_PFHxA_IIS	2.0000	1.0000	y = 1.4632 x	%RSD=4.8
13C8_PFOA_EIS	( 421.0 / 376.0 )	13C4_PFOA_IIS	2.0000	1.0000	y = 1.5336 x	%RSD=6.2
13C9_PFNA_EIS	( 472.0 / 427.0 )	13C5_PFNA_IIS	1.0000	1.0000	y = 0.7704 x	%RSD=10.9
13C6_PFDA_EIS	( 519.0 / 474.0 )	13C2_PFDA_IIS	1.0000	1.0000	y = 0.9591 x	%RSD=11.7
13C7_PFUaA_EIS	( 570.0 / 525.0 )	13C2_PFDA_IIS	1.0000	1.0000	y = 1.3172 x	%RSD=11.5
13C2_PFDaA_EIS	( 615.0 / 570.0 )	13C2_PFDA_IIS	1.0000	1.0000	y = 1.6198 x	%RSD=6.9
13C2_PFTeDA_EIS	( 715.0 / 670.0 )	13C2_PFDA_IIS	1.0000	1.0000	y = 1.0171 x	%RSD=7.3
13C3_PFBs_EIS	( 302.0 / 80.0 )	18O2_PFHxS_IIS	2.0000	1.0000	y = 2.3012 x	%RSD=7.7
13C3_PFHxS_EIS	( 402.0 / 80.0 )	18O2_PFHxS_IIS	2.0000	1.0000	y = 1.2951 x	%RSD=10.0
13C8_PFOs_EIS	( 507.0 / 80.0 )	13C4_PFOs_IIS	2.0000	1.0000	y = 2.4901 x	%RSD=11.2
13C2_4:2FTS_EIS	( 329.0 / 81.0 )	18O2_PFHxS_IIS	4.0000	1.0000	y = 0.2690 x	%RSD=10.4
13C2_6:2FTS_EIS	( 429.0 / 81.0 )	18O2_PFHxS_IIS	4.0000	1.0000	y = 0.3289 x	%RSD=8.3
13C2_8:2FTS_EIS	( 529.0 / 81.0 )	18O2_PFHxS_IIS	4.0000	1.0000	y = 0.3281 x	%RSD=15.1
13C8_PFOsA_EIS	( 506.0 / 78.0 )	13C4_PFOs_IIS	2.0000	1.0000	y = 3.7666 x	%RSD=8.2
D3_NMeFOsA_EIS	( 515.0 / 169.0 )	13C4_PFOs_IIS	2.0000	1.0000	y = 0.9668 x	%RSD=7.1
D5_NeIFOsA_EIS	( 531.1 / 169.0 )	13C4_PFOs_IIS	2.0000	1.0000	y = 0.8388 x	%RSD=11.7
D3_MeFOsAA_EIS	( 573.0 / 419.0 )	13C4_PFOs_IIS	4.0000	1.0000	y = 1.1788 x	%RSD=6.9
D5_EiFOsAA_EIS	( 589.0 / 419.0 )	13C4_PFOs_IIS	4.0000	1.0000	y = 1.0666 x	%RSD=13.7
D7_NMeFOsE_EIS	( 623.2 / 58.9 )	13C4_PFOs_IIS	20.0000	1.0000	y = 1.8535 x	%RSD=10.3
D9_NeIFOsE_EIS	( 639.2 / 58.9 )	13C4_PFOs_IIS	20.0000	1.0000	y = 0.9288 x	%RSD=14.1
13C3_HFPODA_EIS	( 287.0 / 169.0 )	13C2_PFHxA_IIS	8.0000	1.0000	y = 4.1298 x	%RSD=7.9

x=Concentration Analyte

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

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

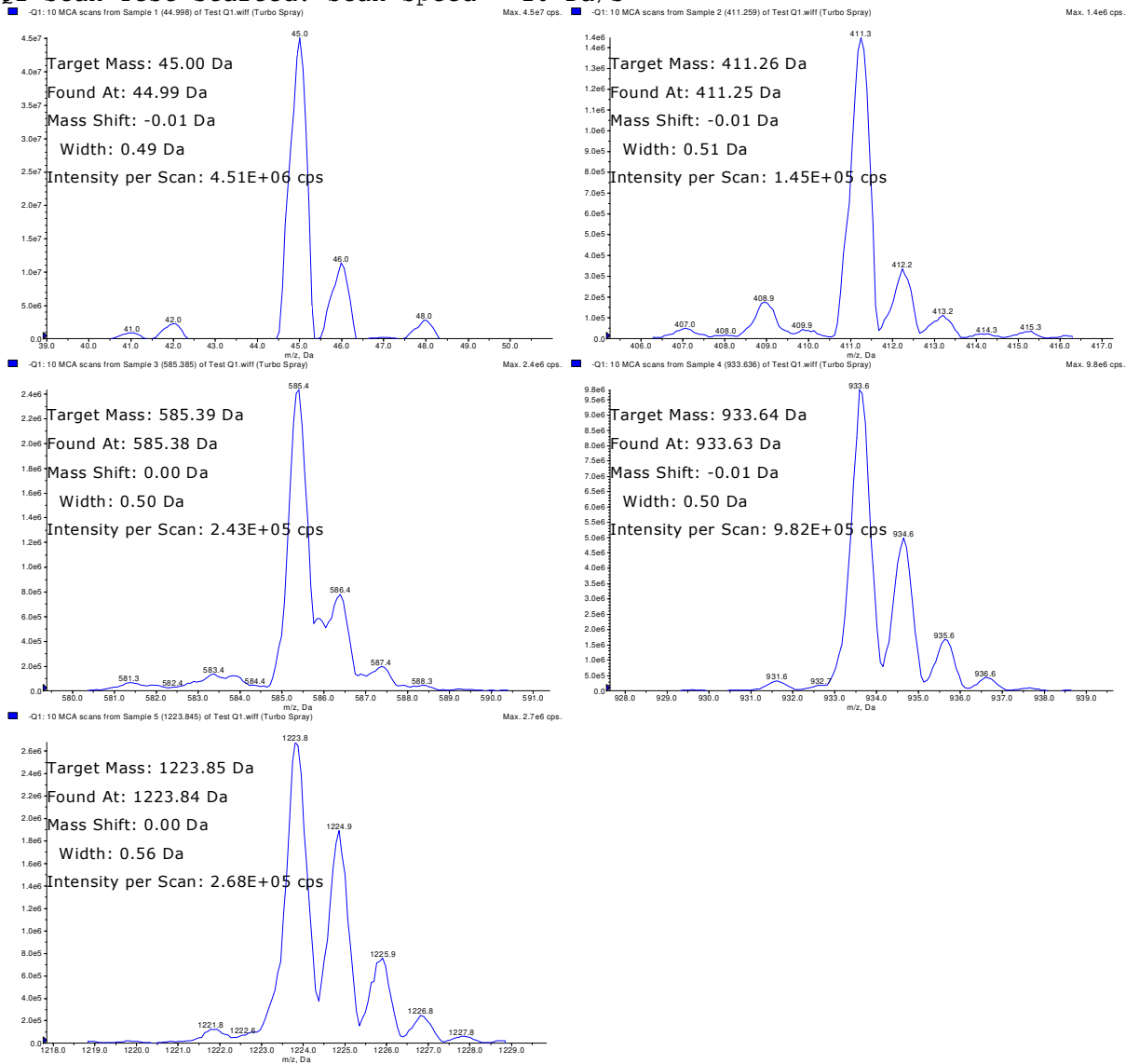
$$\text{Multiplier} = \frac{\text{Concentration of Analyte}}{\text{Concentration of PFOA}} \text{ in curve standard mix}$$

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



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

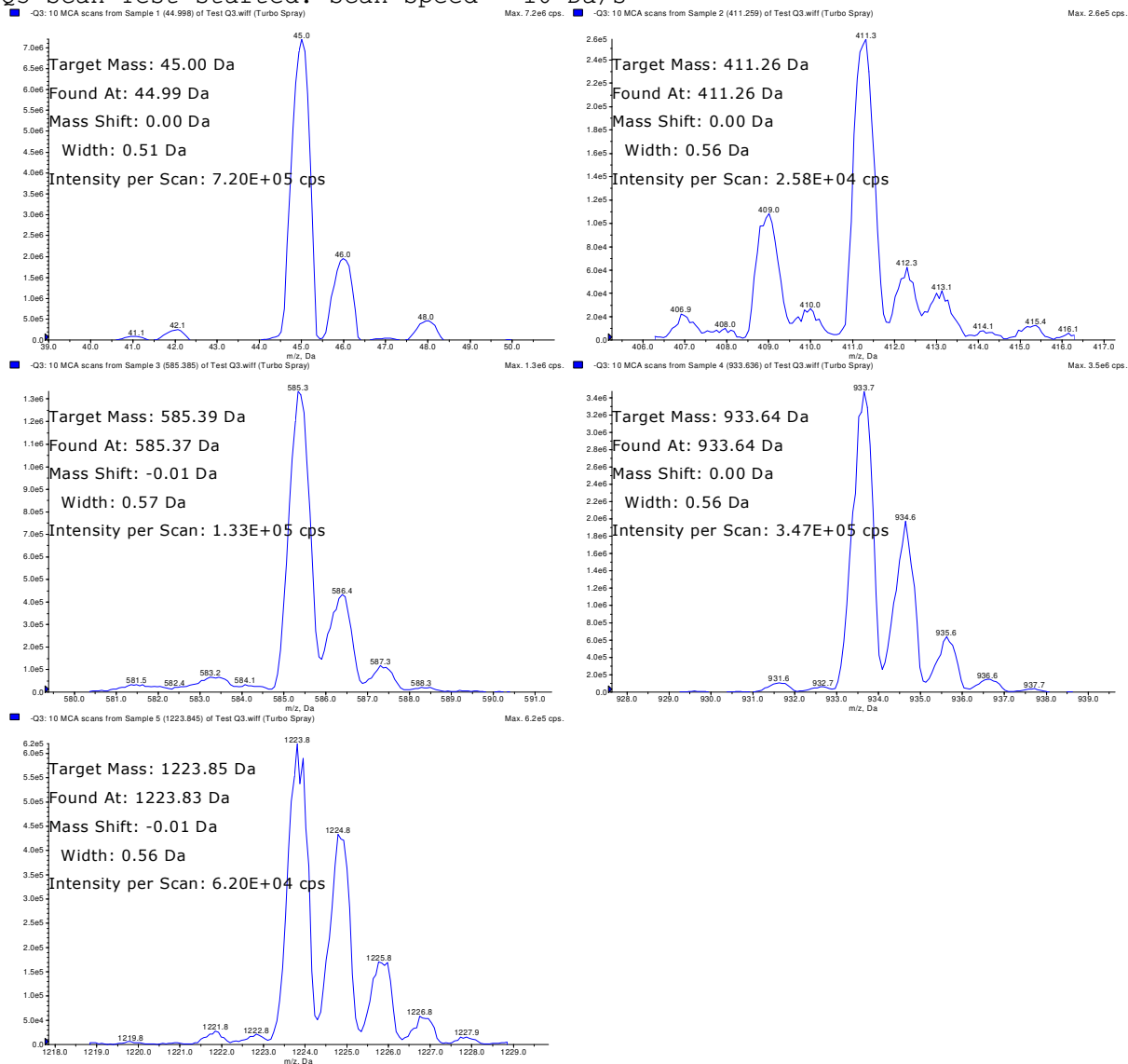
Q1 Scan Test started. Scan Speed = 10 Da/s



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	( 212.9 / 169.0 )	13C4_PFBA_EIS	4.0000	1.0000	y = 0.33209 x (std. dev. = 0.01240) (weighting: None)	%RSE=3.7
PFPeA	( 262.9 / 219.0 )	13C5_PFPeA_EIS	2.0000	1.0000	y = 0.45268 x (std. dev. = 0.03428) (weighting: None)	%RSE=7.6
PFHxA	( 313.0 / 269.0 )	13C5_PFHxA_EIS	1.0000	1.0000	y = 0.45363 x (std. dev. = 0.01311) (weighting: None)	%RSE=2.9
PFHpA	( 363.0 / 319.0 )	13C4_PFHpA_EIS	1.0000	1.0000	y = 0.45149 x (std. dev. = 0.02901) (weighting: None)	%RSE=6.4
PFOA	( 413.0 / 369.0 )	13C8_PFOA_EIS	1.0000	1.0000	y = 0.47390 x (std. dev. = 0.02405) (weighting: None)	%RSE=5.1
PFNA	( 463.0 / 419.0 )	13C9_PFNA_EIS	1.0000	1.0000	y = 0.84500 x (std. dev. = 0.05421) (weighting: None)	%RSE=6.4
PFDA	( 513.0 / 469.0 )	13C6_PFDA_EIS	1.0000	1.0000	y = 0.92195 x (std. dev. = 0.06627) (weighting: None)	%RSE=7.2
PFUnA	( 563.0 / 519.0 )	13C7_PFUnA_EIS	1.0000	1.0000	y = 0.74528 x (std. dev. = 0.07353) (weighting: None)	%RSE=9.9
PFDoA	( 613.0 / 569.0 )	13C2_PFDoA_EIS	1.0000	1.0000	y = 0.80102 x (std. dev. = 0.06222) (weighting: None)	%RSE=7.8
PFTTrDA	( 663.0 / 619.0 )	13C2_PFTTrDA_EIS	1.0000	1.0000	y = 0.66105 x (std. dev. = 0.10764) (weighting: None)	%RSE=16.3
PFTeDA	( 713.0 / 669.0 )	13C2_PFTeDA_EIS	1.0000	1.0000	y = 0.95705 x (std. dev. = 0.11854) (weighting: None)	%RSE=12.4
PFBS	( 298.9 / 80.0 )	13C3_PFBS_EIS	1.0000	0.8847	y = 0.24164 x (std. dev. = 0.01541) (weighting: None)	%RSE=6.4
PFPeS	( 349.0 / 80.0 )	13C3_PFPeS_EIS	1.0000	0.9384	y = 0.88020 x (std. dev. = 0.05216) (weighting: None)	%RSE=5.9
PFHxS	( 399.0 / 80.0 )	13C3_PFHxS_EIS	1.0000	0.9110	y = 0.72440 x (std. dev. = 0.03591) (weighting: None)	%RSE=5.0
PFHpS	( 449.0 / 80.0 )	13C8_PFOA_EIS	1.0000	0.9514	y = 0.42173 x (std. dev. = 0.02988) (weighting: None)	%RSE=7.1
PFOS	( 499.0 / 80.0 )	13C8_PFOA_EIS	1.0000	0.9275	y = 0.50970 x (std. dev. = 0.03059) (weighting: None)	%RSE=6.0
PFNS	( 549.0 / 80.0 )	13C8_PFOA_EIS	1.0000	0.9599	y = 0.60657 x (std. dev. = 0.03125) (weighting: None)	%RSE=5.2
PFDS	( 599.0 / 80.0 )	13C8_PFOA_EIS	1.0000	0.9631	y = 0.75099 x (std. dev. = 0.04265) (weighting: None)	%RSE=5.7
PFDoS	( 698.9 / 80.0 )	13C8_PFOA_EIS	1.0000	0.9696	y = 0.39463 x (std. dev. = 0.04574) (weighting: None)	%RSE=11.6
4:2FTS	( 327.0 / 307.0 )	13C2_4:2FTS_EIS	4.0000	0.9345	y = 2.98035 x (std. dev. = 0.24214) (weighting: None)	%RSE=8.1
6:2FTS	( 427.0 / 407.0 )	13C2_6:2FTS_EIS	4.0000	0.9490	y = 1.46534 x (std. dev. = 0.08435) (weighting: None)	%RSE=5.8
8:2FTS	( 527.0 / 507.0 )	13C2_8:2FTS_EIS	4.0000	0.9583	y = 1.40461 x (std. dev. = 0.14737) (weighting: None)	%RSE=10.5
PFOSA	( 498.0 / 78.0 )	13C8_PFOA_EIS	1.0000	1.0000	y = 0.49766 x (std. dev. = 0.03313) (weighting: None)	%RSE=6.7
NMeFOSA	( 511.9 / 219.0 )	D3_NMeFOSA_EIS	4.0000	1.0000	y = 1.59569 x (std. dev. = 0.19395) (weighting: None)	%RSE=12.2
NEiFOSA	( 526.0 / 219.0 )	D5_NEiFOSA_EIS	4.0000	1.0000	y = 1.82381 x (std. dev. = 0.12868) (weighting: None)	%RSE=7.1
NMeFOSAA	( 570.0 / 419.0 )	D3_MeFOSAA_EIS	1.0000	1.0000	y = 0.18118 x (std. dev. = 0.01548) (weighting: None)	%RSE=8.5
NEiFOSAA	( 584.0 / 419.0 )	D5_EiFOSAA_EIS	1.0000	1.0000	y = 0.22536 x (std. dev. = 0.02619) (weighting: None)	%RSE=11.6
NMeFOSE	( 616.1 / 59.0 )	D7_NMeFOSE_EIS	4.0000	1.0000	y = 0.25467 x (std. dev. = 0.01813) (weighting: None)	%RSE=7.1
NEiFOSE	( 630.0 / 59.0 )	D9_NEiFOSE_EIS	4.0000	1.0000	y = 0.12767 x (std. dev. = 0.00843) (weighting: None)	%RSE=6.6
HFPO-DA	( 285.0 / 169.0 )	13C3_HFPODA_EIS	2.0000	1.0000	y = 0.15276 x (std. dev. = 0.01106) (weighting: None)	%RSE=7.2
ADONA	( 377.0 / 85.0 )	13C3_HFPODA_EIS	2.0000	0.9427	y = 0.59697 x (std. dev. = 0.04853) (weighting: None)	%RSE=8.1
9Cl-Pf3ONS	( 531.0 / 351.0 )	13C3_HFPODA_EIS	2.0000	0.9333	y = 1.67596 x (std. dev. = 0.20836) (weighting: None)	%RSE=12.4
11Cl-Pf3OUDS	( 631.0 / 451.0 )	13C3_HFPODA_EIS	2.0000	0.9432	y = 1.11613 x (std. dev. = 0.09455) (weighting: None)	%RSE=8.5
3:3FTCA	( 241.0 / 177.0 )	13C5_PFPeA_EIS	4.0000	1.0000	y = 0.03883 x (std. dev. = 0.00466) (weighting: None)	%RSE=12.0
5:3FTCA	( 341.0 / 236.7 )	13C5_PFHxA_EIS	4.0000	1.0000	y = 0.36948 x (std. dev. = 0.01999) (weighting: None)	%RSE=5.4
7:3FTCA	( 441.0 / 317.0 )	13C5_PFHxA_EIS	4.0000	1.0000	y = 0.41698 x (std. dev. = 0.02172) (weighting: None)	%RSE=5.2
PFEESA	( 315.0 / 135.0 )	13C5_PFHxA_EIS	2.0000	0.8925	y = 0.83150 x (std. dev. = 0.05357) (weighting: None)	%RSE=6.4
PFMPA	( 229.0 / 85.0 )	13C5_PFPeA_EIS	2.0000	1.0000	y = 0.12218 x (std. dev. = 0.00653) (weighting: None)	%RSE=5.3
PFMBA	( 279.0 / 85.0 )	13C5_PFPeA_EIS	2.0000	1.0000	y = 0.39886 x (std. dev. = 0.01939) (weighting: None)	%RSE=4.9
NFDHA	( 201.0 / 85.0 )	13C5_PFHxA_EIS	2.0000	1.0000	y = 0.01787 x + 0.00104 (r = 0.99801) (weighting: 1 / x)	%RSE=8.3
13C3_PFBA_IIS	( 216.0 / 172.0 )	13C3_PFBA_IIS	1.0000	1.0000	y = 87429.5049 x	%RSD=8.4
13C2_PFHxA_IIS	( 315.1 / 270.0 )	13C2_PFHxA_IIS	1.0000	1.0000	y = 131575.6029 x	%RSD=8.3
13C4_PFOA_IIS	( 417.0 / 372.0 )	13C4_PFOA_IIS	1.0000	1.0000	y = 125169.4661 x	%RSD=5.8
13C5_PFNA_IIS	( 468.0 / 423.0 )	13C5_PFNA_IIS	1.0000	1.0000	y = 99817.5077 x	%RSD=8.6
13C2_PFDA_IIS	( 515.1 / 470.1 )	13C2_PFDA_IIS	1.0000	1.0000	y = 103702.9640 x	%RSD=8.2
18O2_PFHxS_IIS	( 403.0 / 83.9 )	18O2_PFHxS_IIS	1.0000	1.0000	y = 236582.8028 x	%RSD=6.4
13C4_PFOS_IIS	( 502.8 / 79.9 )	13C4_PFOS_IIS	1.0000	1.0000	y = 200620.3053 x	%RSD=11.5

Analyte	( Q1 / Q3 )	Internal Standard	Multiplier	AcidFactor	Function	Qualifier
13C4_PFBa_EIS	( 217.0 / 172.0 )	13C3_PFBa_IIS	8.0000	1.0000	y = 8.2826 x	%RSD=5.6
13C5_PFPaA_EIS	( 267.9 / 223.0 )	13C2_PFHxA_IIS	4.0000	1.0000	y = 2.9449 x	%RSD=12.6
13C5_PFHxA_EIS	( 318.0 / 273.0 )	13C2_PFHxA_IIS	2.0000	1.0000	y = 2.3544 x	%RSD=12.0
13C4_PFHpA_EIS	( 367.0 / 322.0 )	13C2_PFHxA_IIS	2.0000	1.0000	y = 2.0801 x	%RSD=9.5
13C8_PFOA_EIS	( 421.0 / 376.0 )	13C4_PFOA_IIS	2.0000	1.0000	y = 2.2100 x	%RSD=7.9
13C9_PFNA_EIS	( 472.0 / 427.0 )	13C5_PFNA_IIS	1.0000	1.0000	y = 1.0923 x	%RSD=12.4
13C6_PFDA_EIS	( 519.0 / 474.0 )	13C2_PFDA_IIS	1.0000	1.0000	y = 1.3550 x	%RSD=16.2
13C7_PFUaA_EIS	( 570.0 / 525.0 )	13C2_PFDA_IIS	1.0000	1.0000	y = 1.9511 x	%RSD=14.4
13C2_PFDaA_EIS	( 615.0 / 570.0 )	13C2_PFDA_IIS	1.0000	1.0000	y = 2.2003 x	%RSD=6.2
13C2_PFTeDA_EIS	( 715.0 / 670.0 )	13C2_PFDA_IIS	1.0000	1.0000	y = 1.3373 x	%RSD=17.8
13C3_PFBs_EIS	( 302.0 / 80.0 )	18O2_PFHxS_IIS	2.0000	1.0000	y = 3.2664 x	%RSD=7.3
13C3_PFHxS_EIS	( 402.0 / 80.0 )	18O2_PFHxS_IIS	2.0000	1.0000	y = 1.6940 x	%RSD=7.7
13C8_PFOs_EIS	( 507.0 / 80.0 )	13C4_PFOs_IIS	2.0000	1.0000	y = 3.2854 x	%RSD=9.7
13C2_4:2FTS_EIS	( 329.0 / 81.0 )	18O2_PFHxS_IIS	4.0000	1.0000	y = 0.3684 x	%RSD=9.4
13C2_6:2FTS_EIS	( 429.0 / 81.0 )	18O2_PFHxS_IIS	4.0000	1.0000	y = 0.4721 x	%RSD=9.4
13C2_8:2FTS_EIS	( 529.0 / 81.0 )	18O2_PFHxS_IIS	4.0000	1.0000	y = 0.4232 x	%RSD=14.2
13C8_PFOsA_EIS	( 506.0 / 78.0 )	13C4_PFOs_IIS	2.0000	1.0000	y = 4.7813 x	%RSD=10.6
D3_NMeFOsA_EIS	( 515.0 / 169.0 )	13C4_PFOs_IIS	2.0000	1.0000	y = 1.1912 x	%RSD=13.0
D5_NeIFOsA_EIS	( 531.1 / 169.0 )	13C4_PFOs_IIS	2.0000	1.0000	y = 1.1123 x	%RSD=10.8
D3_MeFOsAA_EIS	( 573.0 / 419.0 )	13C4_PFOs_IIS	4.0000	1.0000	y = 1.5413 x	%RSD=12.6
D5_EiFOsAA_EIS	( 589.0 / 419.0 )	13C4_PFOs_IIS	4.0000	1.0000	y = 1.2810 x	%RSD=15.0
D7_NMeFOsE_EIS	( 623.2 / 58.9 )	13C4_PFOs_IIS	20.0000	1.0000	y = 2.2913 x	%RSD=10.5
D9_NeIFOsE_EIS	( 639.2 / 58.9 )	13C4_PFOs_IIS	20.0000	1.0000	y = 1.2338 x	%RSD=11.7
13C3_HFPODA_EIS	( 287.0 / 169.0 )	13C2_PFHxA_IIS	8.0000	1.0000	y = 5.7339 x	%RSD=7.5

x=Concentration Analyte

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

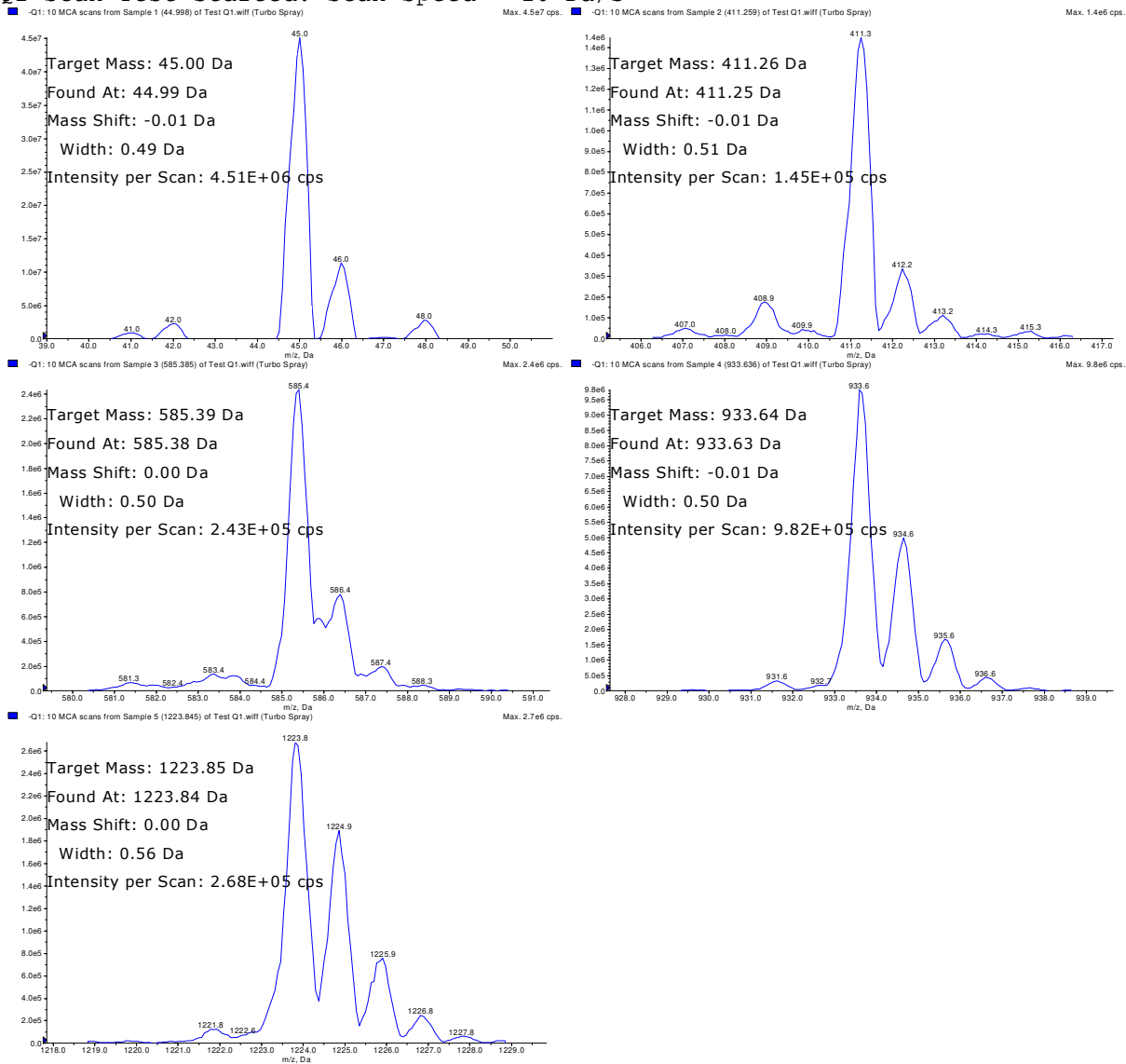
$$\text{Acid Factor} = \frac{\text{Molecular weight Acid}}{\text{Molecular weight Salt}}$$

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

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

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

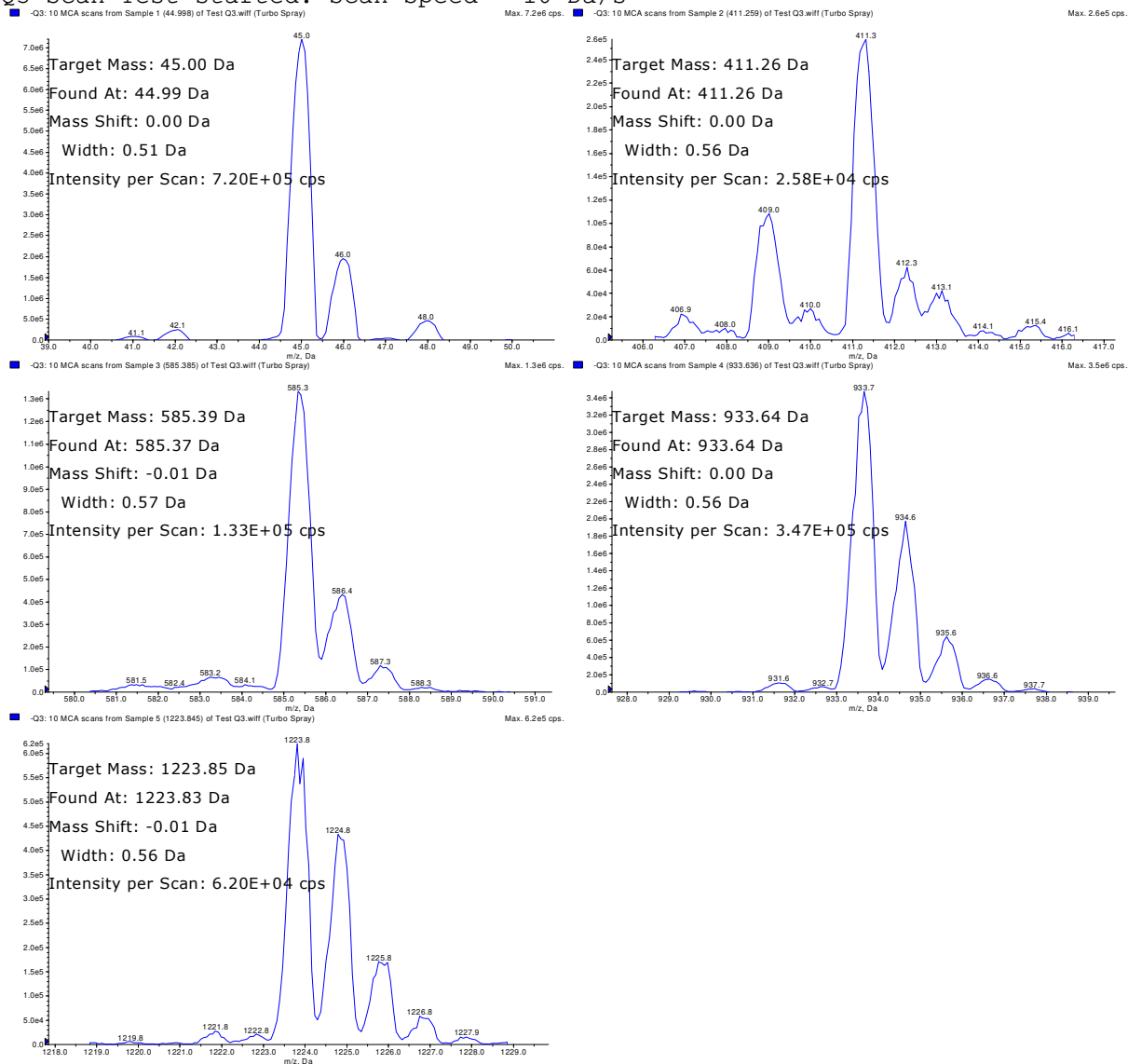
Q1 Scan Test started. Scan Speed = 10 Da/s



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

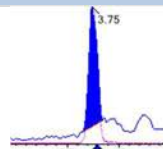
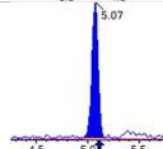
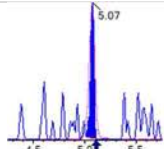
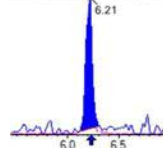
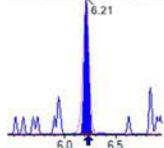
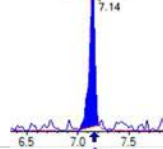
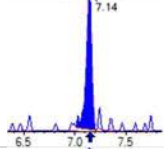
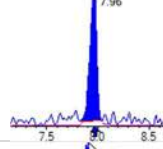
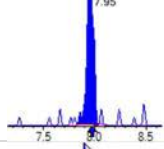
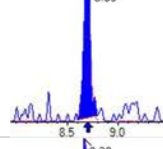
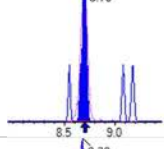
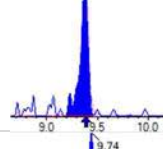
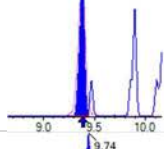
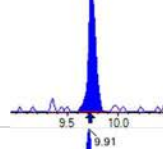
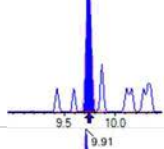
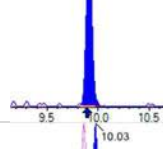
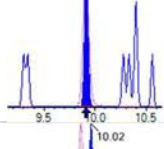
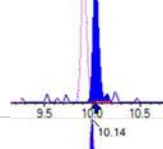
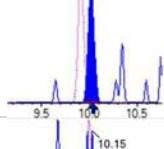
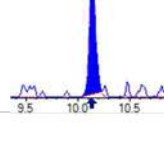
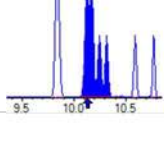
Q3 Scan Test started. Scan Speed = 10 Da/s



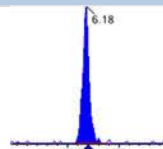
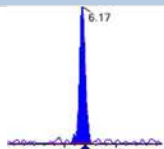
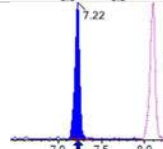
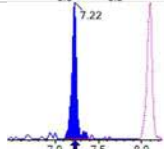
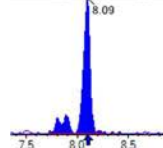
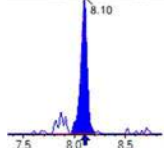
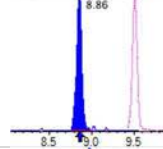
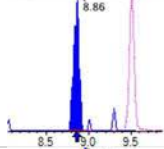
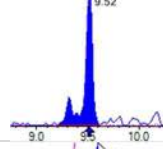
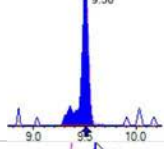
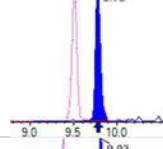
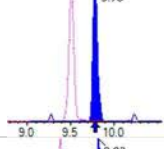
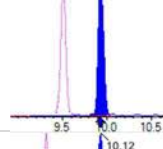
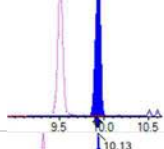
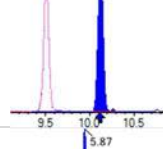
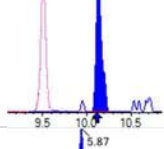
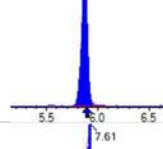
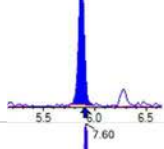
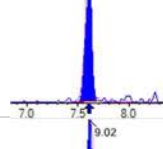
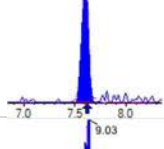
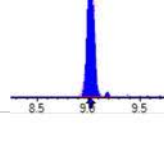
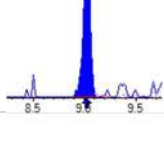
Target Mass	Found At	Delta	Width	Intensity	0.4<Width<0.6
45.00	44.99	0.00	0.51	7.20E+05	PASS
411.26	411.26	0.00	0.56	2.58E+04	PASS
585.39	585.37	-0.01	0.57	1.33E+05	PASS
933.64	933.64	0.00	0.56	3.47E+05	PASS
1223.85	1223.83	-0.01	0.56	6.20E+04	PASS

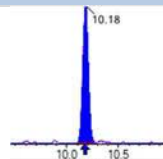
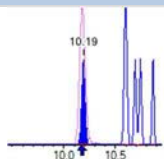
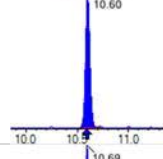
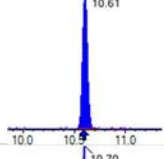
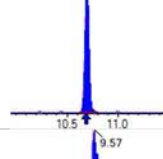
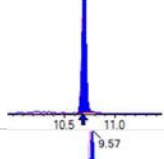
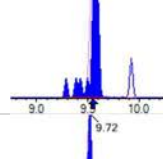
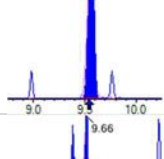
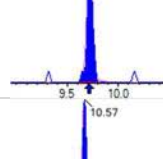
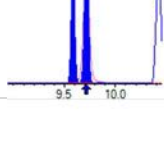
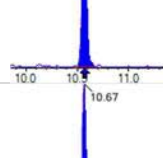
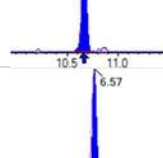
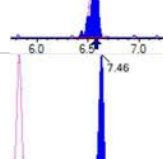
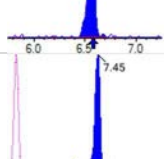
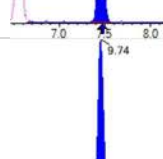
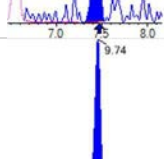
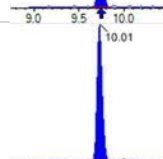
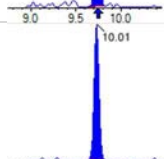

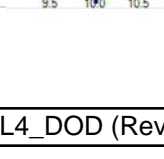
# EPA 1633

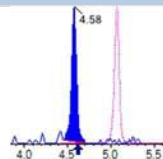
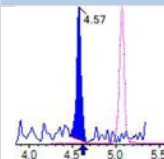
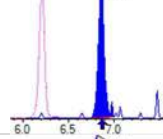
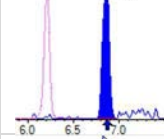
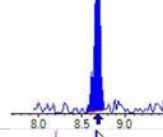
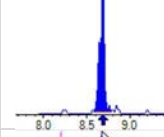
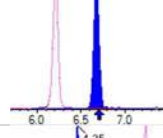
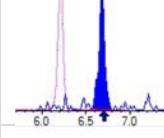
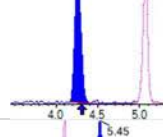
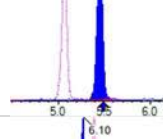
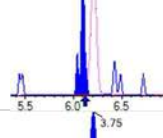
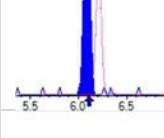
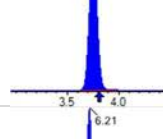
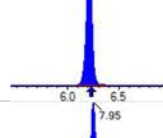
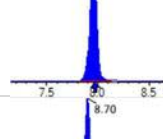
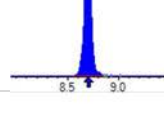
Initial Calibration: SB03823

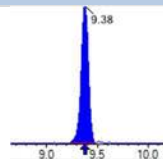
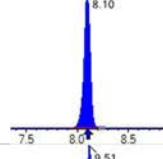
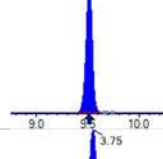
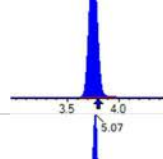
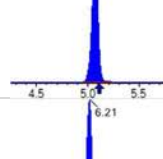
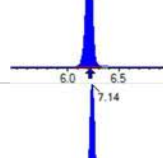
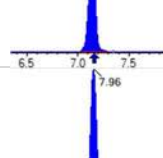
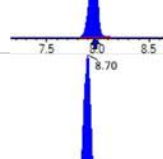
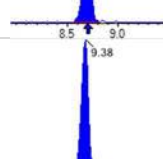
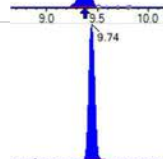

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-Imin, $\Delta$ RT-CVmin, $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 25183	(3.75, 1.00) (0.00, N/A, 0.0)	41.1	N/A 0.0 0.0	0.3677 [0.4000]	91.9%			
PFPeA	(262.9 / 219.0) 18029 (262.9 / 69.0) 230	(5.07, 1.00) (0.00, N/A, -0.2)	124.6 17.2	0.0128 101.7 101.7	0.1906 [0.2000]	95.3%			
PFHxA	(313.0 / 269.0) 12152 (313.0 / 119.0) 1158	(6.21, 1.00) (0.00, N/A, -0.1)	52.8 35.7	0.0953 102.9 102.9	0.0983 [0.1000]	98.3%			
PFHpA	(363.0 / 319.0) 12762 (363.0 / 169.0) 4000	(7.14, 1.00) (0.00, N/A, 0.1)	61.2 45.0	0.3134 100.7 100.7	0.1041 [0.1000]	104.1%			
PFOA	(413.0 / 369.0) 14795 (413.0 / 169.0) 4480	(7.96, 1.00) (0.00, N/A, 0.2)	52.3 54.5	0.3028 90.2 90.2	0.1177 [0.1000]	117.7%			
PFNA	(463.0 / 419.0) 8653 (463.0 / 169.0) 813	(8.69, 1.00) (0.00, N/A, -0.2)	26.6 15.3	0.0939 53.5 53.5	0.1003 [0.1000]	100.3%			
PFDA	(513.0 / 469.0) 13877 (513.0 / 169.0) 1718	(9.38, 1.00) (0.00, N/A, -0.2)	42.4 44.0	0.1238 123.0 123.0	0.1086 [0.1000]	108.6%			
PFUnA	(563.0 / 519.0) 16947 (563.0 / 169.0) 2361	(9.74, 1.00) (0.00, N/A, 0.1)	64.0 23.5	0.1393 152.2 152.2	0.0980 [0.1000]	98.0%			IR2,
PFDoA	(613.0 / 569.0) 26307 (613.0 / 169.0) 847	(9.91, 1.00) (0.00, N/A, -0.2)	108.8 20.6	0.0322 25.1 25.1	0.1247 [0.1000]	124.7%			IR1,
PFTTrDA	(663.0 / 619.0) 18722 (663.0 / 169.0) 3175	(10.03, 1.01) (N/A, 0.00, 0.9)	82.0 30.4	0.1696 77.2 77.2	0.1077 [0.1000]	107.7%			
PFTeDA	(713.0 / 669.0) 11378 (713.0 / 169.0) 1807	(10.14, 1.00) (0.00, N/A, -0.5)	51.6 15.8	0.1588 85.4 85.4	0.0881 [0.1000]	88.1%			

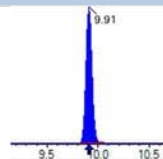
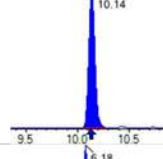
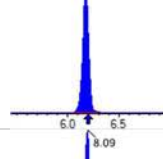
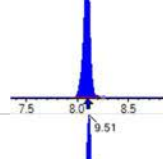
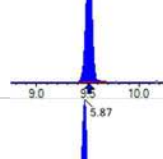
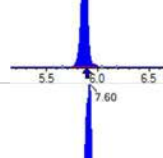
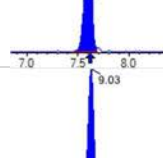
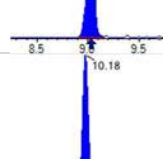
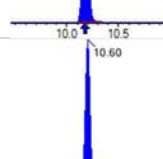
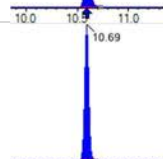



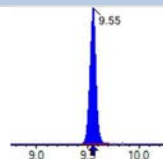
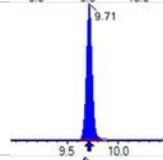
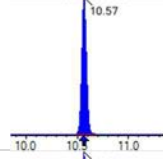
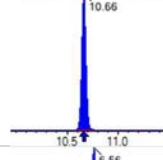
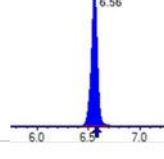
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-Imin, $\Delta$ RT-CVmin, $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 17579 (298.9 / 99.0) 14460	(6.18, 1.00) (0.00, N/A, 0.4)	194.9 100.3	0.8226 114.2 114.2	0.0859 [0.0885]	97.1%			
PFPeS	(349.0 / 80.0) 36034 (349.0 / 99.0) 12916	(7.22, 0.89) (N/A, -0.01, 0.1)	275.1 99.8	0.3584 95.7 95.7	0.1097 [0.0938]	116.9%			
PFHxS	(399.0 / 80.0) 32817 (399.0 / 99.0) 9746	(8.09, 1.00) (0.00, N/A, -0.1)	1919.4 144.2	0.2970 92.1 92.1	0.1094 [0.0911]	120.1%			
PFHpS	(449.0 / 80.0) 26025 (449.0 / 99.0) 6379	(8.86, 0.93) (N/A, -0.01, -0.2)	224.9 141.2	0.2451 79.8 79.8	0.0925 [0.0951]	97.2%			
PFOS	(499.0 / 80.0) 34591 (499.0 / 99.0) 10202	(9.52, 1.00) (0.01, N/A, 0.8)	49.7 49.6	0.2949 128.5 128.5	0.1011 [0.0927]	109.0%			
PFNS	(549.0 / 80.0) 44071 (549.0 / 99.0) 9647	(9.78, 1.03) (N/A, 0.00, -0.2)	161.6 487.5	0.2189 84.4 84.4	0.1046 [0.0960]	108.9%			
PFDS	(599.0 / 80.0) 62240 (599.0 / 99.0) 12765	(9.93, 1.04) (N/A, 0.01, -0.3)	237.6 630.7	0.2051 91.1 91.1	0.1123 [0.0963]	116.6%			
PFDoS	(698.9 / 80.0) 27460 (698.9 / 99.0) 6869	(10.12, 1.06) (N/A, 0.01, -0.7)	1199.3 49.0	0.2502 123.6 123.6	0.0980 [0.0970]	101.0%			
4:2FTS	(327.0 / 307.0) 27490 (327.0 / 81.0) 15432	(5.87, 1.00) (0.00, N/A, 0.1)	380.3 119.7	0.5614 92.5 92.5	0.4086 [0.3738]	109.3%			
6:2FTS	(427.0 / 407.0) 17427 (427.0 / 81.0) 10767	(7.61, 1.00) (0.01, N/A, 0.5)	123.1 75.7	0.6178 95.1 95.1	0.4356 [0.3796]	114.8%			
8:2FTS	(527.0 / 507.0) 13776 (527.0 / 81.0) 11937	(9.02, 1.00) (-0.01, N/A, -0.5)	3683.6 57.8	0.8665 138.2 138.2	0.3782 [0.3833]	98.7%			

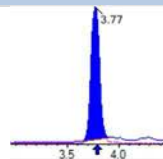
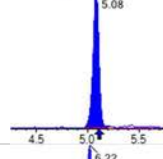
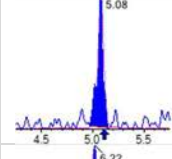
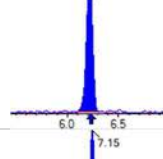
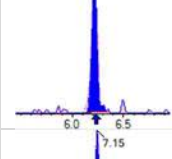
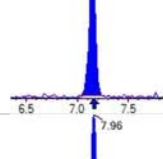
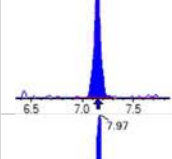
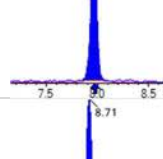
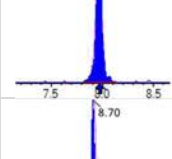
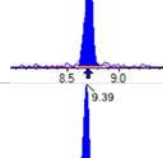
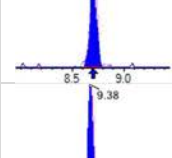
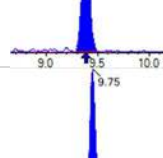
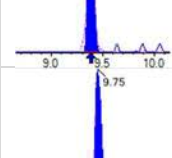
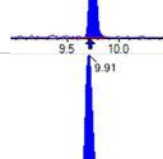
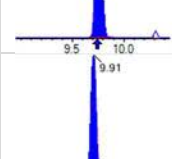
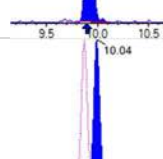
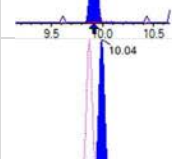
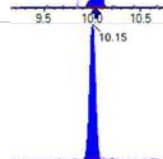
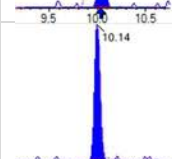

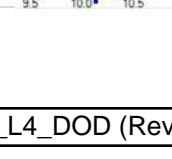
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-Imin, $\Delta$ RT-CVmin, $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 44867 (498.0 / 478.0) 301	(10.18, 1.00) (0.00, N/A, -0.4)	214.1 12.9	0.0067 29.4 29.4	0.0924 [0.1000]	92.4%			
NMeFOSA	(511.9 / 219.0) 39410 (511.9 / 169.0) 30750	(10.60, 1.00) (0.00, N/A, -0.2)	581.2 318.6	0.7803 122.3 122.3	0.4101 [0.4000]	102.5%			
NEIFOSA	(526.0 / 219.0) 46753 (526.0 / 169.0) 48270	(10.69, 1.00) (0.00, N/A, -0.1)	531.5 373.7	1.0324 96.7 96.7	0.4561 [0.4000]	114.0%			
NMeFOSAA	(570.0 / 419.0) 4860 (570.0 / 483.0) 2687	(9.57, 1.00) (0.02, N/A, 0.4)	151391.4 263.3	0.5529 96.3 96.3	0.0932 [0.1000]	93.2%			
NEIFOSAA	(584.0 / 419.0) 5808 (584.0 / 526.0) 1859	(9.72, 1.00) (0.01, N/A, 3.3)	459270.3 103.6	0.3201 56.5 56.5	0.1054 [0.1000]	105.4%			
NMeFOSE	(616.1 / 59.0) 15497	(10.57, 1.00) (0.01, N/A, 0.0)	268.1	N/A 0.0 0.0	0.5065 [0.4000]	126.6%			
NEtFOSE	(630.0 / 59.0) 3877	(10.67, 1.00) (0.00, N/A, 0.0)	347.9	N/A 0.0 0.0	0.4431 [0.4000]	110.8%			
HFPO-DA	(285.0 / 169.0) 10512 (285.0 / 185.0) 33665	(6.57, 1.00) (0.01, N/A, 0.1)	202.6 222.9	3.2026 121.8 121.8	0.1904 [0.2000]	95.2%			
ADONA	(377.0 / 85.0) 55727 (377.0 / 251.0) 6768	(7.46, 1.14) (N/A, -0.01, 0.5)	495.5 26.2	0.1214 103.0 103.0	0.2367 [0.1885]	125.5%			
9CI-Pf3ONS	(531.0 / 351.0) 150836 (533.0 / 353.0) 45137	(9.74, 1.48) (N/A, 0.01, -0.1)	318.9 105.2	0.2992 103.2 103.2	0.2259 [0.1867]	121.0%			
11CI-PF3OUDS	(631.0 / 451.0) 82897 (633.0 / 453.0) 20945	(10.01, 1.53) (N/A, 0.00, 0.0)	7339.7 376.4	0.2527 80.1 80.1	0.1937 [0.1886]	102.7%			

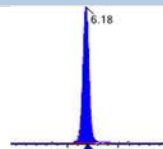
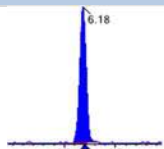
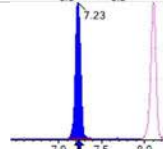
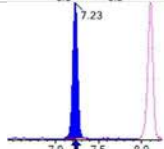
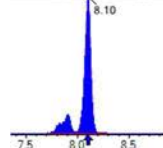
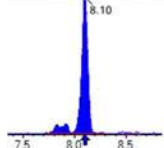
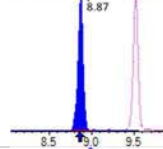
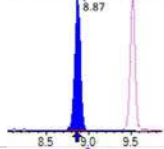
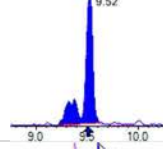
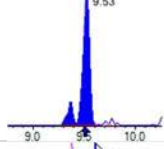
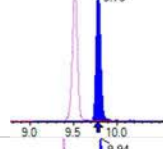
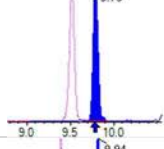
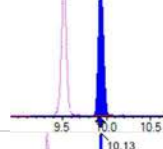
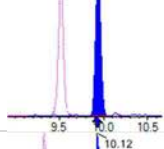
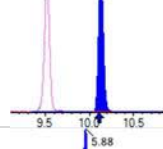
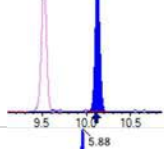
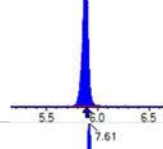
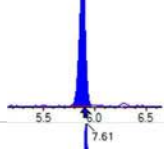
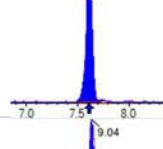
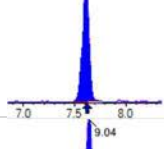
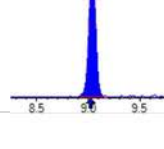
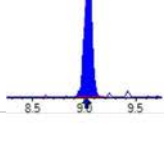
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-Imin, $\Delta$ RT-CVmin, $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 1526 (241.0 / 117.0) 2205	(4.58, 0.90) (N/A, -0.04, 0.2)	70.6 37.3	1.4448 88.1 88.1	0.3839 [0.4000]	96.0%			
5:3FTCA	(341.0 / 236.7) 7391 (341.0 / 217.0) 18515	(6.86, 1.10) (N/A, -0.01, 0.1)	90.8 79.3	2.5050 158.9 158.9	0.2988 [0.4000]	74.7%			IR2,
7:3FTCA	(441.0 / 317.0) 14583 (441.0 / 337.0) 10740	(8.68, 1.40) (N/A, 0.00, -0.2)	46.6 146.0	0.7365 87.9 87.9	0.4712 [0.4000]	117.8%			
PFEESA	(315.0 / 135.0) 28437 (315.0 / 83.0) 9057	(6.68, 1.07) (N/A, -0.02, -0.3)	419.0 55.5	0.3185 103.9 103.9	0.2113 [0.1785]	118.4%			
PFMPA	(229.0 / 85.0) 5012	(4.25, 0.84) (N/A, -0.05, 0.0)	186.2	N/A 0.0 0.0	0.1952 [0.2000]	97.6%			
PFMBA	(279.0 / 85.0) 17280	(5.45, 1.08) (N/A, -0.04, 0.0)	384.0	N/A 0.0 0.0	0.2011 [0.2000]	100.5%			
NFDHA	(201.0 / 85.0) 863 (295.0 / 201.0) 4745	(6.10, 0.98) (N/A, -0.02, 0.7)	59.6 92.8	5.4985 83.5 83.5	0.2203 [0.2000]	110.2%			
13C3_PFBA_IIS	(216.0 / 172.0) 134732	(3.75, N/A) (N/A, -0.05, N/A)	641.4	N/A	1.1104 [1.0000]	111.0% {106.4%}			
13C2_PFHxA_IIS	(315.1 / 270.0) 182961	(6.21, N/A) (N/A, -0.02, N/A)	723.3	N/A	1.0026 [1.0000]	100.3% {93.5%}			
13C4_PFOA_IIS	(417.0 / 372.0) 180399	(7.95, N/A) (N/A, -0.01, N/A)	410.1	N/A	1.0334 [1.0000]	103.3% {102.4%}			
13C5_PFNxA_IIS	(468.0 / 423.0) 140050	(8.70, N/A) (N/A, -0.01, N/A)	373.3	N/A	1.0306 [1.0000]	103.1% {106.1%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-Imin, $\Delta$ RT-CVmin, $\Delta$ 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	(515.1 / 470.1) 139697	(9.38, N/A) (N/A, 0.00, N/A)	335.5	N/A	1.0068 [1.0000]	100.7% {98.9%}			
18O2_PFHxS_IIS	(403.0 / 83.9) 346170	(8.10, N/A) (N/A, -0.01, N/A)	624.9	N/A	1.0726 [1.0000]	107.3% {103.2%}			
13C4_PFOS_IIS	(502.8 / 79.9) 250661	(9.51, N/A) (N/A, 0.01, N/A)	441.5	N/A	0.9954 [1.0000]	99.5% {90.9%}			
13C4_PFBA_EIS	(217.0 / 172.0) 780047	(3.75, N/A) (N/A, -0.05, N/A)	896.0	N/A	7.5953 [8.0000]	94.9% {98.1%}			
13C5_PFPeA_EIS	(267.9 / 223.0) 426306	(5.07, N/A) (N/A, -0.04, N/A)	756.0	N/A	4.2075 [4.0000]	105.2% {100.0%}			
13C5_PFHxA_EIS	(318.0 / 273.0) 278975	(6.21, N/A) (N/A, -0.02, N/A)	729.4	N/A	1.8093 [2.0000]	90.5% {88.1%}			
13C4_PFHpA_EIS	(367.0 / 322.0) 264919	(7.14, N/A) (N/A, -0.01, N/A)	540.4	N/A	1.9792 [2.0000]	99.0% {91.8%}			
13C8_PFOA_EIS	(421.0 / 376.0) 251573	(7.96, N/A) (N/A, -0.01, N/A)	747.0	N/A	1.8187 [2.0000]	90.9% {92.8%}			
13C9_PFNA_EIS	(472.0 / 427.0) 94634	(8.70, N/A) (N/A, -0.01, N/A)	355.9	N/A	0.8770 [1.0000]	87.7% {87.8%}			
13C6_PFDA_EIS	(519.0 / 474.0) 126355	(9.38, N/A) (N/A, 0.00, N/A)	333.7	N/A	0.9431 [1.0000]	94.3% {103.8%}			
13C7_PFUnA_EIS	(570.0 / 525.0) 199353	(9.74, N/A) (N/A, 0.01, N/A)	539.4	N/A	1.0834 [1.0000]	108.3% {107.3%}			

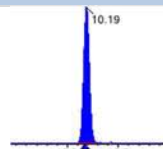
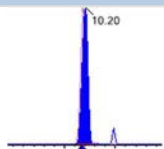
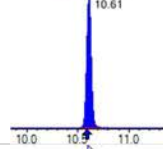
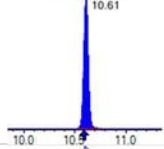
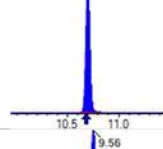
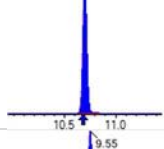
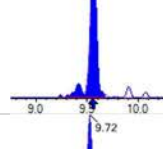
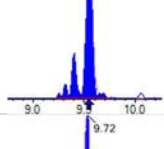
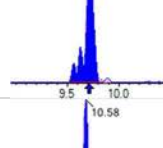
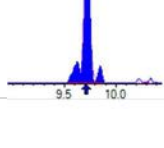
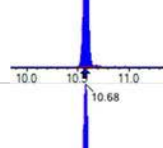
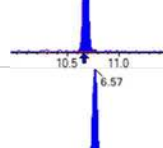
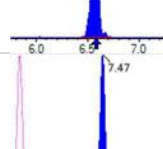
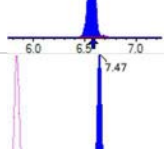
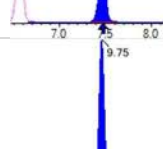
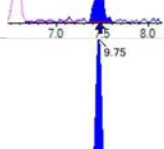
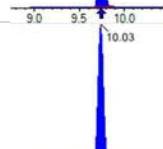
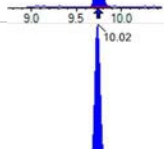

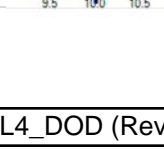
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-Imin, $\Delta$ RT-CVmin, $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 243530	(9.91, N/A) (N/A, 0.01, N/A)	674.0	N/A	1.0762 [1.0000]	107.6% {99.6%}			
13C2_PFTeDA_EIS	(715.0 / 670.0) 141363	(10.14, N/A) (N/A, 0.01, N/A)	269.4	N/A	0.9949 [1.0000]	99.5% {95.0%}			
13C3_PFBs_EIS	(302.0 / 80.0) 724657	(6.18, N/A) (N/A, -0.03, N/A)	867.3	N/A	1.8193 [2.0000]	91.0% {93.9%}			
13C3_PFHxS_EIS	(402.0 / 80.0) 373506	(8.09, N/A) (N/A, -0.01, N/A)	649.8	N/A	1.6663 [2.0000]	83.3% {83.4%}			
13C8_PFOS_EIS	(507.0 / 80.0) 622191	(9.51, N/A) (N/A, 0.00, N/A)	468.7	N/A	1.9936 [2.0000]	99.7% {97.3%}			
13C2_4:2FTS_EIS	(329.0 / 81.0) 82535	(5.87, N/A) (N/A, -0.03, N/A)	489.7	N/A	3.5454 [4.0000]	88.6% {88.4%}			
13C2_6:2FTS_EIS	(429.0 / 81.0) 98175	(7.60, N/A) (N/A, -0.01, N/A)	442.8	N/A	3.4491 [4.0000]	86.2% {88.2%}			
13C2_8:2FTS_EIS	(529.0 / 81.0) 102316	(9.03, N/A) (N/A, 0.00, N/A)	231.1	N/A	3.6030 [4.0000]	90.1% {92.5%}			
13C8_PFOsa_EIS	(506.0 / 78.0) 990177	(10.18, N/A) (N/A, 0.01, N/A)	752.4	N/A	2.0975 [2.0000]	104.9% {95.7%}			
D3_NMeFOSA_EIS	(515.0 / 169.0) 231043	(10.60, N/A) (N/A, 0.01, N/A)	1160.0	N/A	1.9067 [2.0000]	95.3% {98.7%}			
D5_NEiFOSA_EIS	(531.1 / 169.0) 221799	(10.69, N/A) (N/A, 0.01, N/A)	1422.5	N/A	2.1097 [2.0000]	105.5% {103.4%}			

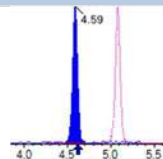
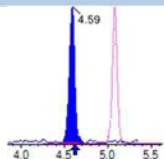
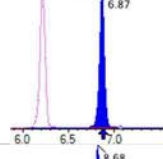
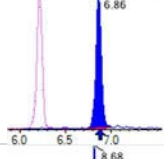
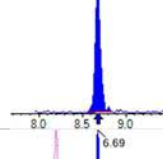
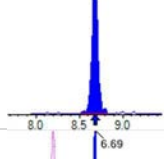
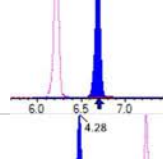
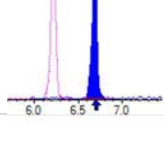
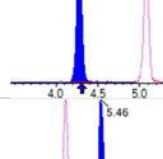
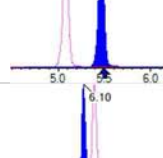
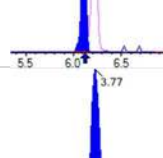
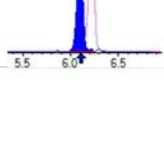
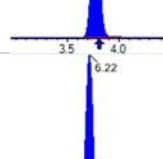
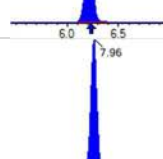
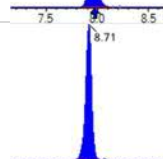

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-Imin, $\Delta$ RT-CVmin, $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 269808	(9.55, N/A) (N/A, 0.00, N/A)	429.2	N/A	3.6526 [4.0000]	91.3% {85.4%}			
D5_EtFOSAA_EIS	(589.0 / 419.0) 253220	(9.71, N/A) (N/A, 0.01, N/A)	307.0	N/A	3.7885 [4.0000]	94.7% {85.5%}			
D7_NMeFOSE_EIS	(623.2 / 58.9) 453584	(10.57, N/A) (N/A, 0.01, N/A)	1336.4	N/A	19.5254 [20.0000]	97.6% {100.0%}			
D9_NEtFOSE_EIS	(639.2 / 58.9) 258639	(10.66, N/A) (N/A, 0.01, N/A)	1148.8	N/A	22.2194 [20.0000]	111.1% {107.8%}			
13C3_HFPODA_EIS	(287.0 / 169.0) 714285	(6.56, N/A) (N/A, -0.02, N/A)	1151.0	N/A	7.5627 [8.0000]	94.5% {95.4%}			

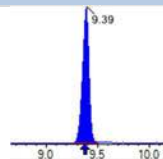
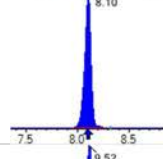
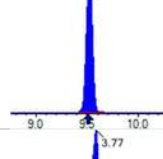
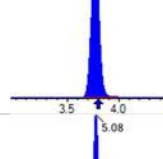
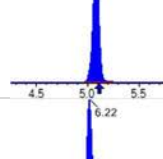
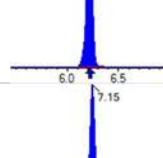
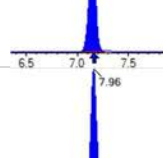
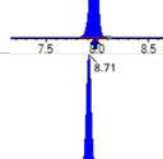
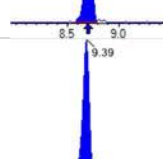
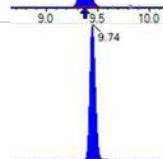

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 138158	(3.77, 1.00) (0.00, N/A, 0.0)	60.2	N/A 0.0 0.0	2.0992 [2.0000]	105.0%			
PFPeA	(262.9 / 219.0) 85520 (262.9 / 69.0) 1117	(5.08, 1.00) (0.00, N/A, 0.3)	326.7 39.0	0.0131 104.0 104.0	1.0030 [1.0000]	100.3%			
PFHxA	(313.0 / 269.0) 66974 (313.0 / 119.0) 7067	(6.22, 1.00) (0.00, N/A, 0.0)	216.8 98.6	0.1055 114.0 114.0	0.4734 [0.5000]	94.7%			
PFHpA	(363.0 / 319.0) 57407 (363.0 / 169.0) 17976	(7.15, 1.00) (0.00, N/A, 0.1)	165.5 165.3	0.3131 100.6 100.6	0.4907 [0.5000]	98.1%			
PFOA	(413.0 / 369.0) 69895 (413.0 / 169.0) 22658	(7.96, 1.00) (0.00, N/A, -0.1)	252.1 285.6	0.3242 96.6 96.6	0.5320 [0.5000]	106.4%			
PFNA	(463.0 / 419.0) 43265 (463.0 / 169.0) 11688	(8.71, 1.00) (0.00, N/A, 0.6)	136.3 98.4	0.2702 153.9 153.9	0.4874 [0.5000]	97.5%			IR2,
PFDA	(513.0 / 469.0) 65847 (513.0 / 169.0) 7781	(9.39, 1.00) (0.00, N/A, 0.6)	157.1 165.9	0.1182 117.4 117.4	0.5254 [0.5000]	105.1%			
PFUnA	(563.0 / 519.0) 85629 (563.0 / 169.0) 10386	(9.75, 1.00) (0.00, N/A, -0.4)	215.8 2396.2	0.1213 132.5 132.5	0.4859 [0.5000]	97.2%			
PFDoA	(613.0 / 569.0) 78710 (613.0 / 169.0) 10824	(9.91, 1.00) (0.00, N/A, 0.2)	195.1 202.6	0.1375 107.3 107.3	0.4220 [0.5000]	84.4%			
PFTTrDA	(663.0 / 619.0) 84117 (663.0 / 169.0) 19701	(10.04, 1.01) (N/A, 0.02, 0.0)	364.0 122.2	0.2342 106.6 106.6	0.5470 [0.5000]	109.4%			
PFTeDA	(713.0 / 669.0) 68930 (713.0 / 169.0) 14007	(10.15, 1.00) (0.00, N/A, 0.2)	263.1 108.2	0.2032 109.2 109.2	0.5699 [0.5000]	114.0%			

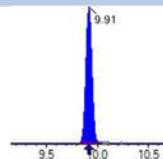
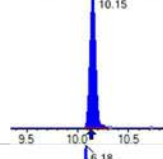
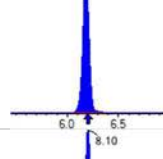
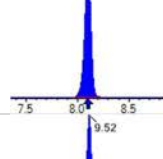
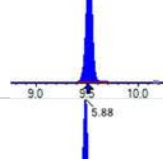
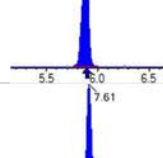
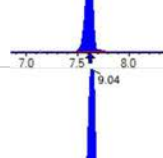
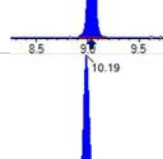
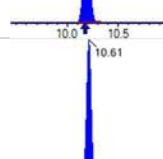
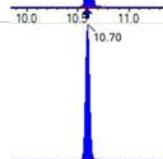

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 98385 (298.9 / 99.0) 60169	(6.18, 1.00) (0.00, N/A, 0.0)	490.6 352.1	0.6116 84.9 84.9	0.4839 [0.4424]	109.4%			
PFPeS	(349.0 / 80.0) 169046 (349.0 / 99.0) 57603	(7.23, 0.89) (N/A, -0.01, -0.1)	667.5 352.4	0.3408 91.0 91.0	0.4608 [0.4692]	98.2%			
PFHxS	(399.0 / 80.0) 142232 (399.0 / 99.0) 50715	(8.10, 1.00) (0.00, N/A, 0.1)	6375.6 2152097.3	0.3566 110.5 110.5	0.4248 [0.4555]	93.3%			
PFHpS	(449.0 / 80.0) 138527 (449.0 / 99.0) 39330	(8.87, 0.93) (N/A, 0.01, -0.1)	383.3 375.6	0.2839 92.5 92.5	0.4749 [0.4757]	99.8%			
PFOS	(499.0 / 80.0) 146815 (499.0 / 99.0) 36640	(9.52, 1.00) (0.00, N/A, 0.0)	90.2 90.6	0.2496 108.7 108.7	0.4141 [0.4637]	89.3%			
PFNS	(549.0 / 80.0) 216862 (549.0 / 99.0) 50903	(9.79, 1.03) (N/A, 0.01, -0.1)	446.7 280.2	0.2347 90.5 90.5	0.4965 [0.4799]	103.4%			
PFDS	(599.0 / 80.0) 267784 (599.0 / 99.0) 63365	(9.94, 1.04) (N/A, 0.02, -0.2)	591.3 288.4	0.2366 105.1 105.1	0.4663 [0.4816]	96.8%			
PFDoS	(698.9 / 80.0) 137114 (698.9 / 99.0) 33776	(10.13, 1.06) (N/A, 0.01, 0.3)	1423.5 241.0	0.2463 121.7 121.7	0.4720 [0.4848]	97.4%			
4:2FTS	(327.0 / 307.0) 136149 (327.0 / 81.0) 75810	(5.88, 1.00) (0.00, N/A, 0.0)	862.4 342.4	0.5568 91.8 91.8	1.8271 [1.8691]	97.8%			
6:2FTS	(427.0 / 407.0) 77294 (427.0 / 81.0) 53012	(7.61, 1.00) (0.00, N/A, 0.1)	305.1 285.3	0.6859 105.6 105.6	1.8411 [1.8981]	97.0%			
8:2FTS	(527.0 / 507.0) 70607 (527.0 / 81.0) 43798	(9.04, 1.00) (0.00, N/A, -0.2)	200.6 242.3	0.6203 98.9 98.9	2.2137 [1.9166]	115.5%			

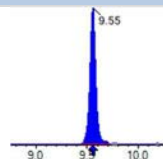
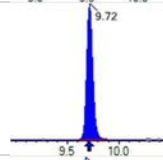
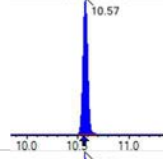
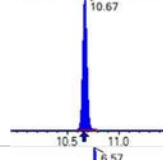
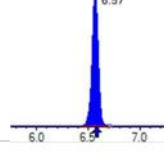


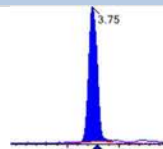
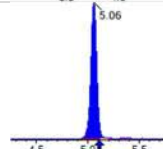
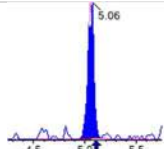
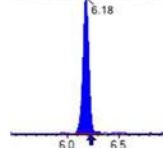
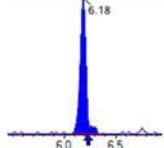
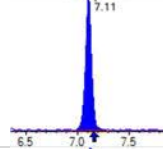
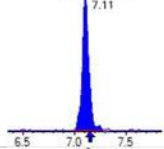
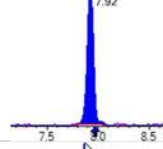
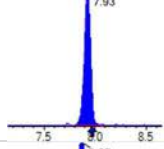
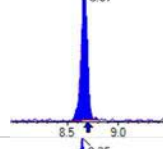
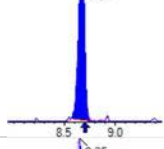
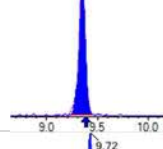
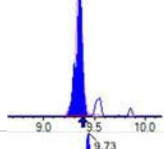
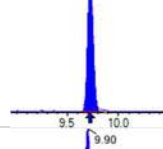
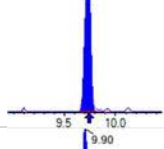
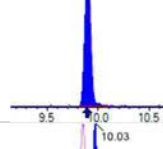
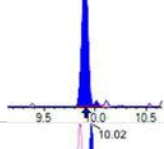
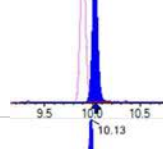
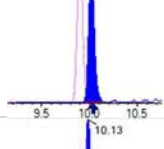
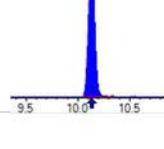
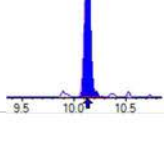
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 215890 (498.0 / 478.0) 4512	(10.19, 1.00) (0.00, N/A, -1.0)	703.7 17801.1	0.0209 91.8 91.8	0.4636 [0.5000]	92.7%			
NMeFOSA	(511.9 / 219.0) 207832 (511.9 / 169.0) 143371	(10.61, 1.00) (0.00, N/A, -0.1)	914.4 1293.0	0.6898 108.1 108.1	2.1814 [2.0000]	109.1%			
NEIFOSA	(526.0 / 219.0) 196493 (526.0 / 169.0) 206219	(10.70, 1.00) (0.00, N/A, 0.0)	1262.4 705.4	1.0495 98.3 98.3	1.9873 [2.0000]	99.4%			
NMeFOSAA	(570.0 / 419.0) 30368 (570.0 / 483.0) 18050	(9.56, 1.00) (0.01, N/A, 0.6)	633.8 3449.2	0.5944 103.5 103.5	0.5402 [0.5000]	108.0%			
NEIFOSAA	(584.0 / 419.0) 29876 (584.0 / 526.0) 18031	(9.72, 1.00) (0.00, N/A, -0.2)	78.7 178.8	0.6035 106.5 106.5	0.5285 [0.5000]	105.7%			
NMeFOSE	(616.1 / 59.0) 61840	(10.58, 1.00) (0.01, N/A, 0.0)	470.9	N/A 0.0 0.0	1.8757 [2.0000]	93.8%			
NEtFOSE	(630.0 / 59.0) 17222	(10.68, 1.00) (0.01, N/A, 0.0)	330.9	N/A 0.0 0.0	2.1596 [2.0000]	108.0%			
HFPO-DA	(285.0 / 169.0) 61395 (285.0 / 185.0) 177748	(6.57, 1.00) (0.00, N/A, 0.0)	596.1 656.2	2.8951 110.1 110.1	1.0369 [1.0000]	103.7%			
ADONA	(377.0 / 85.0) 220809 (377.0 / 251.0) 27327	(7.47, 1.14) (N/A, 0.00, 0.1)	974.2 126.3	0.1238 105.0 105.0	0.8745 [0.9427]	92.8%			
9CI-Pf3ONS	(531.0 / 351.0) 682603 (533.0 / 353.0) 189730	(9.75, 1.48) (N/A, 0.01, 0.0)	943.6 335.9	0.2780 95.9 95.9	0.9534 [0.9333]	102.2%			
11CI-PF3OUDS	(631.0 / 451.0) 426891 (633.0 / 453.0) 127367	(10.03, 1.53) (N/A, 0.02, 0.2)	942.2 856.0	0.2984 94.6 94.6	0.9304 [0.9432]	98.6%			

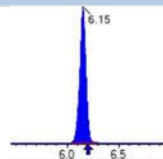
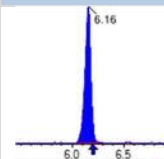
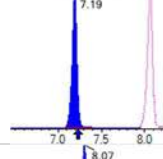
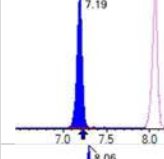
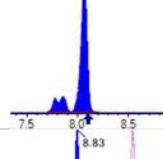
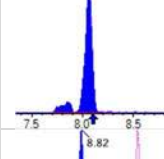
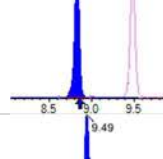
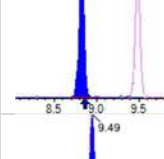
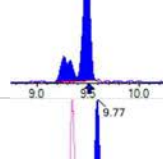
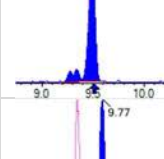
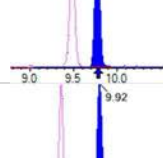
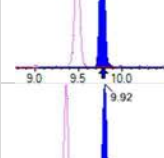
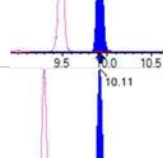
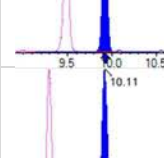
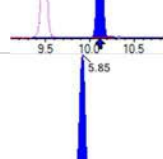
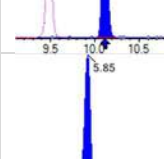
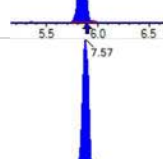
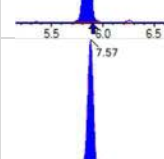
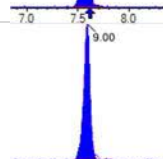
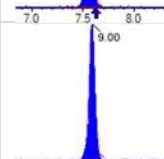

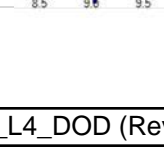
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 6890 (241.0 / 117.0) 12819	(4.59, 0.90) (N/A, -0.03, 0.1)	210.0 158.3	1.8605 113.5 113.5	1.9227 [2.0000]	96.1%			
5:3FTCA	(341.0 / 236.7) 59766 (341.0 / 217.0) 87049	(6.87, 1.10) (N/A, -0.01, 0.3)	298.2 272.3	1.4565 92.4 92.4	2.1111 [2.0000]	105.6%			
7:3FTCA	(441.0 / 317.0) 68377 (441.0 / 337.0) 45837	(8.68, 1.40) (N/A, 0.00, -0.2)	179.9 215.3	0.6704 80.0 80.0	1.9304 [2.0000]	96.5%			
PFEESA	(315.0 / 135.0) 136464 (315.0 / 83.0) 41101	(6.69, 1.08) (N/A, -0.01, 0.0)	576.0 207.3	0.3012 98.2 98.2	0.8857 [0.8925]	99.2%			
PFMPA	(229.0 / 85.0) 22934	(4.28, 0.84) (N/A, -0.03, 0.0)	486.7	N/A 0.0 0.0	0.9909 [1.0000]	99.1%			
PFMBA	(279.0 / 85.0) 77847	(5.46, 1.08) (N/A, -0.03, 0.0)	742.1	N/A 0.0 0.0	1.0050 [1.0000]	100.5%			
NFDHA	(201.0 / 85.0) 3540 (295.0 / 201.0) 16051	(6.10, 0.98) (N/A, -0.01, 0.4)	910.7 225.1	4.5335 68.8 68.8	1.1102 [1.0000]	111.0%			
13C3_PFBA_IIS	(216.0 / 172.0) 119009	(3.77, N/A) (N/A, -0.03, N/A)	739.0	N/A	0.9808 [1.0000]	98.1% {94.0%}			
13C2_PFHxA_IIS	(315.1 / 270.0) 161021	(6.22, N/A) (N/A, -0.01, N/A)	719.3	N/A	0.8824 [1.0000]	88.2% {82.3%}			
13C4_PFOA_IIS	(417.0 / 372.0) 167040	(7.96, N/A) (N/A, 0.00, N/A)	708.2	N/A	0.9569 [1.0000]	95.7% {94.8%}			
13C5_PFNxA_IIS	(468.0 / 423.0) 140805	(8.71, N/A) (N/A, 0.00, N/A)	441.9	N/A	1.0362 [1.0000]	103.6% {106.7%}			

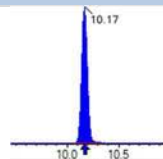
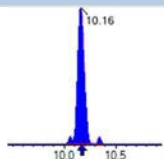
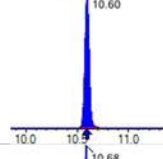
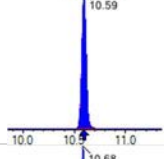
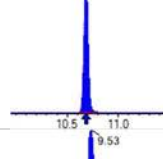
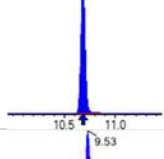
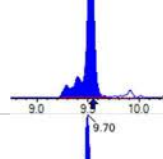
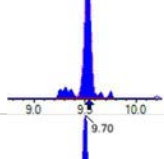
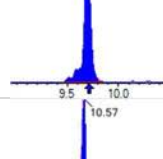
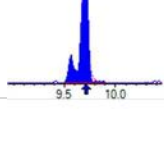
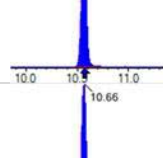
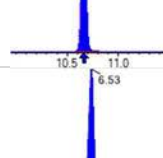
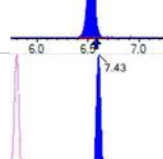
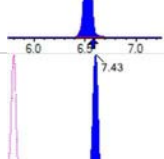
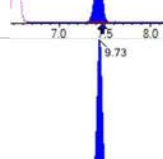
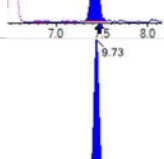
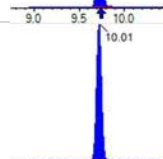
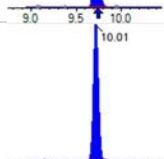

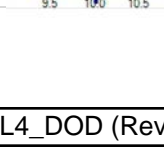
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 131343	(9.39, N/A) (N/A, 0.01, N/A)	303.6	N/A	0.9466 [ 1.0000 ]	94.7% { 93.0% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 325843	(8.10, N/A) (N/A, 0.00, N/A)	633.1	N/A	1.0096 [ 1.0000 ]	101.0% { 97.2% }			
13C4_PFOS_IIS	(502.8 / 79.9) 220313	(9.52, N/A) (N/A, 0.01, N/A)	576.1	N/A	0.8749 [ 1.0000 ]	87.5% { 79.9% }			
13C4_PFBA_EIS	(217.0 / 172.0) 749557	(3.77, N/A) (N/A, -0.03, N/A)	907.4	N/A	8.2627 [ 8.0000 ]	103.3% { 94.2% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 384230	(5.08, N/A) (N/A, -0.03, N/A)	746.2	N/A	4.3089 [ 4.0000 ]	107.7% { 90.1% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 319308	(6.22, N/A) (N/A, -0.01, N/A)	530.2	N/A	2.3530 [ 2.0000 ]	117.7% { 100.8% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 252836	(7.15, N/A) (N/A, -0.01, N/A)	580.7	N/A	2.1463 [ 2.0000 ]	107.3% { 87.6% }			
13C8_PFOA_EIS	(421.0 / 376.0) 262957	(7.96, N/A) (N/A, 0.00, N/A)	661.6	N/A	2.0530 [ 2.0000 ]	102.6% { 97.0% }			
13C9_PFNA_EIS	(472.0 / 427.0) 97363	(8.71, N/A) (N/A, 0.01, N/A)	292.3	N/A	0.8975 [ 1.0000 ]	89.8% { 90.3% }			
13C6_PFDA_EIS	(519.0 / 474.0) 123952	(9.39, N/A) (N/A, 0.01, N/A)	403.9	N/A	0.9840 [ 1.0000 ]	98.4% { 101.9% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 203167	(9.74, N/A) (N/A, 0.01, N/A)	438.5	N/A	1.1743 [ 1.0000 ]	117.4% { 109.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 215396	(9.91, N/A) (N/A, 0.01, N/A)	405.5	N/A	1.0124 [ 1.0000 ]	101.2% { 88.1% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 132346	(10.15, N/A) (N/A, 0.02, N/A)	330.5	N/A	0.9907 [ 1.0000 ]	99.1% { 88.9% }			
13C3_PFBs_EIS	(302.0 / 80.0) 719638	(6.18, N/A) (N/A, -0.02, N/A)	872.8	N/A	1.9194 [ 2.0000 ]	96.0% { 93.2% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 416949	(8.10, N/A) (N/A, 0.00, N/A)	931.5	N/A	1.9761 [ 2.0000 ]	98.8% { 93.1% }			
13C8_PFOS_EIS	(507.0 / 80.0) 644812	(9.52, N/A) (N/A, 0.01, N/A)	456.6	N/A	2.3507 [ 2.0000 ]	117.5% { 100.8% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 91413	(5.88, N/A) (N/A, -0.02, N/A)	640.5	N/A	4.1717 [ 4.0000 ]	104.3% { 97.9% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 103029	(7.61, N/A) (N/A, -0.01, N/A)	610.4	N/A	3.8455 [ 4.0000 ]	96.1% { 92.6% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 89583	(9.04, N/A) (N/A, 0.01, N/A)	407.8	N/A	3.3514 [ 4.0000 ]	83.8% { 81.0% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 949565	(10.19, N/A) (N/A, 0.01, N/A)	791.6	N/A	2.2886 [ 2.0000 ]	114.4% { 91.7% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 229035	(10.61, N/A) (N/A, 0.01, N/A)	844.2	N/A	2.1505 [ 2.0000 ]	107.5% { 97.9% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 213925	(10.70, N/A) (N/A, 0.01, N/A)	1550.4	N/A	2.3151 [ 2.0000 ]	115.8% { 99.7% }			

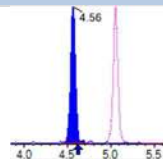
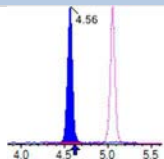
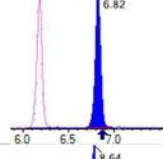
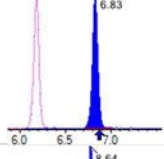
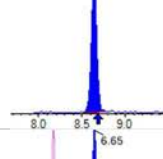
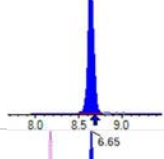
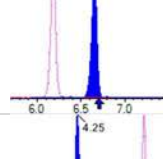
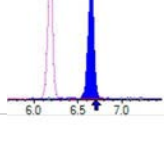
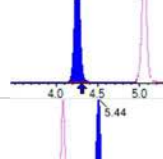
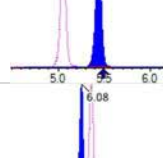
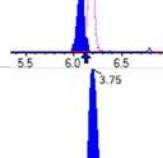
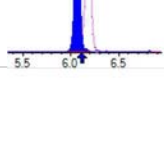
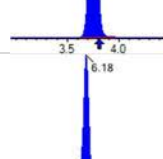
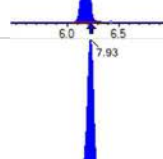
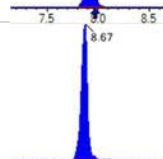

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 290884	(9.55, N/A) (N/A, 0.01, N/A)	371.3	N/A	4.4803 [ 4.0000 ]	112.0% { 92.0% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 259771	(9.72, N/A) (N/A, 0.01, N/A)	320.8	N/A	4.4219 [ 4.0000 ]	110.5% { 87.7% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 488729	(10.57, N/A) (N/A, 0.01, N/A)	1066.9	N/A	23.9364 [ 20.0000 ]	119.7% { 107.7% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 235750	(10.67, N/A) (N/A, 0.01, N/A)	1081.5	N/A	23.0429 [ 20.0000 ]	115.2% { 98.3% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 765965	(6.57, N/A) (N/A, -0.01, N/A)	870.3	N/A	9.2149 [ 8.0000 ]	115.2% { 102.3% }			

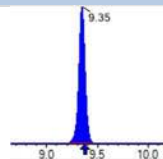
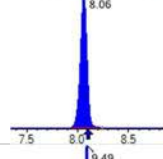
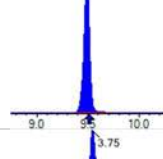
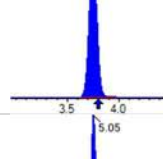
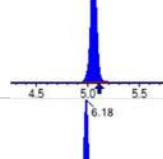
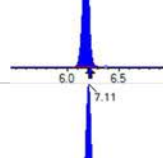
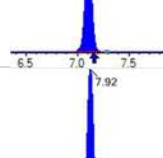
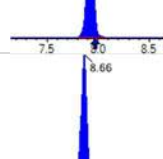
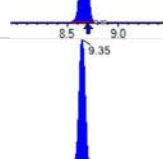
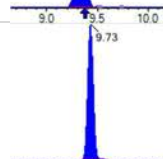

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 286089	(3.75, 1.00) (0.00, N/A, 0.0)	57.3	N/A 0.0 0.0	4.1304 [4.0000]	103.3%			
PFPeA	(262.9 / 219.0) 202602 (262.9 / 69.0) 2175	(5.06, 1.00) (0.00, N/A, -0.2)	639.3 74.9	0.0107 85.5 85.5	2.1827 [2.0000]	109.1%			
PFHxA	(313.0 / 269.0) 153870 (313.0 / 119.0) 14085	(6.18, 1.00) (0.00, N/A, -0.1)	400.2 151.8	0.0915 98.9 98.9	1.1157 [1.0000]	111.6%			
PFHpA	(363.0 / 319.0) 126404 (363.0 / 169.0) 40384	(7.11, 1.00) (0.00, N/A, 0.1)	329.5 335.9	0.3195 102.7 102.7	1.0045 [1.0000]	100.5%			
PFOA	(413.0 / 369.0) 136637 (413.0 / 169.0) 46925	(7.92, 1.00) (0.00, N/A, -0.1)	265.4 347.5	0.3434 102.3 102.3	0.9025 [1.0000]	90.2%			
PFNA	(463.0 / 419.0) 96070 (463.0 / 169.0) 21110	(8.67, 1.00) (0.00, N/A, -0.1)	182.5 96.9	0.2197 125.2 125.2	0.9503 [1.0000]	95.0%			
PFDA	(513.0 / 469.0) 153540 (513.0 / 169.0) 8560	(9.35, 1.00) (0.00, N/A, -0.3)	220.9 151.7	0.0557 55.4 55.4	1.2215 [1.0000]	122.1%			
PFUnA	(563.0 / 519.0) 184875 (563.0 / 169.0) 18703	(9.72, 1.00) (0.00, N/A, -0.4)	469.5 333.6	0.1012 110.5 110.5	1.0643 [1.0000]	106.4%			
PFDoA	(613.0 / 569.0) 199772 (613.0 / 169.0) 25044	(9.90, 1.00) (0.00, N/A, -0.2)	529.1 171.9	0.1254 97.8 97.8	1.0717 [1.0000]	107.2%			
PFTrDA	(663.0 / 619.0) 168594 (663.0 / 169.0) 32392	(10.03, 1.01) (N/A, 0.00, 0.4)	488.0 158.2	0.1921 87.5 87.5	1.0970 [1.0000]	109.7%			
PFTeDA	(713.0 / 669.0) 139003 (713.0 / 169.0) 24209	(10.13, 1.00) (0.00, N/A, 0.0)	416.2 121.0	0.1742 93.6 93.6	0.9438 [1.0000]	94.4%			

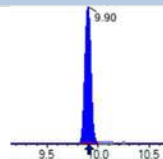
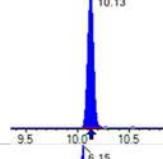
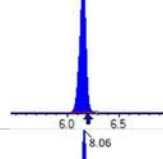
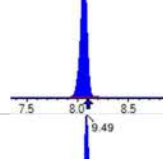
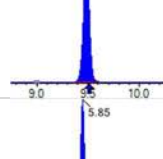
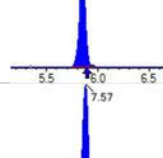
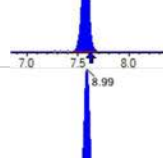
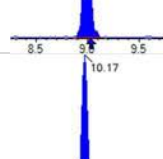
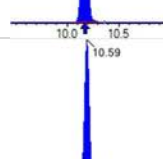
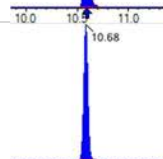

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 191673 (298.9 / 99.0) 128553	(6.15, 1.00) (0.00, N/A, -0.1)	576.5 459.4	0.6707 93.1 93.1	0.9529 [0.8847]	107.7%			
PFPeS	(349.0 / 80.0) 358754 (349.0 / 99.0) 141868	(7.19, 0.89) (N/A, -0.05, 0.0)	462.5 578.8	0.3954 105.6 105.6	0.9428 [0.9384]	100.5%			
PFHxS	(399.0 / 80.0) 313682 (399.0 / 99.0) 108173	(8.07, 1.00) (0.00, N/A, 0.3)	7447.6 551.2	0.3448 106.9 106.9	0.9031 [0.9110]	99.1%			
PFHpS	(449.0 / 80.0) 300689 (449.0 / 99.0) 77253	(8.83, 0.93) (N/A, -0.03, 0.3)	634.4 403.9	0.2569 83.7 83.7	0.9323 [0.9514]	98.0%			
PFOS	(499.0 / 80.0) 306402 (499.0 / 99.0) 79702	(9.49, 1.00) (0.00, N/A, -0.2)	118.3 173.3	0.2601 113.3 113.3	0.7817 [0.9275]	84.3%			
PFNS	(549.0 / 80.0) 426081 (549.0 / 99.0) 110896	(9.77, 1.03) (N/A, -0.01, 0.0)	688.6 455.9	0.2603 100.4 100.4	0.8823 [0.9599]	91.9%			
PFDS	(599.0 / 80.0) 562719 (599.0 / 99.0) 118496	(9.92, 1.05) (N/A, 0.00, -0.1)	654.0 350.3	0.2106 93.6 93.6	0.8864 [0.9631]	92.0%			
PFDoS	(698.9 / 80.0) 287677 (698.9 / 99.0) 54881	(10.11, 1.07) (N/A, 0.00, 0.1)	490.6 316.2	0.1908 94.2 94.2	0.8957 [0.9696]	92.4%			
4:2FTS	(327.0 / 307.0) 285704 (327.0 / 81.0) 161593	(5.85, 1.00) (0.00, N/A, -0.1)	925.4 521.9	0.5656 93.2 93.2	4.0397 [3.7381]	108.1%			
6:2FTS	(427.0 / 407.0) 163918 (427.0 / 81.0) 131103	(7.57, 1.00) (0.00, N/A, 0.0)	548.4 562.5	0.7998 123.1 123.1	3.8539 [3.7962]	101.5%			
8:2FTS	(527.0 / 507.0) 155355 (527.0 / 81.0) 99865	(9.00, 1.00) (0.00, N/A, 0.0)	370.4 521.9	0.6428 102.5 102.5	4.2665 [3.8332]	111.3%			

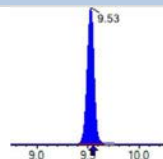
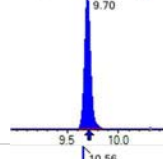
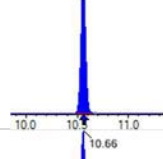
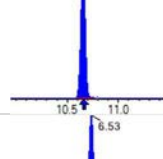
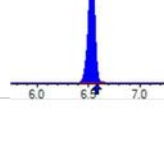
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	( 498.0 / 78.0 ) 520801 ( 498.0 / 478.0 ) 10727	( 10.17 , 1.00 ) ( 0.00 , N/A , 0.4 )	685.9 2230.8	0.0206 90.5 90.5	1.2232 [ 1.0000 ]	122.3%			
NMeFOSA	( 511.9 / 219.0 ) 439602 ( 511.9 / 169.0 ) 301983	( 10.60 , 1.00 ) ( 0.00 , N/A , 0.0 )	1177.9 909.9	0.6869 107.7 107.7	4.0451 [ 4.0000 ]	101.1%			
NEIFOSA	( 526.0 / 219.0 ) 392794 ( 526.0 / 169.0 ) 416279	( 10.68 , 1.00 ) ( 0.00 , N/A , 0.1 )	1033.5 1009.7	1.0598 99.3 99.3	3.8802 [ 4.0000 ]	97.0%			
NMeFOSAA	( 570.0 / 419.0 ) 56144 ( 570.0 / 483.0 ) 35133	( 9.53 , 1.00 ) ( 0.00 , N/A , 0.0 )	196.0 687.8	0.6258 109.0 109.0	0.9356 [ 1.0000 ]	93.6%			
NEIFOSAA	( 584.0 / 419.0 ) 67385 ( 584.0 / 526.0 ) 44915	( 9.70 , 1.00 ) ( 0.00 , N/A , -0.4 )	2242.8 199.9	0.6665 117.6 117.6	1.0604 [ 1.0000 ]	106.0%			
NMeFOSE	( 616.1 / 59.0 ) 135458	( 10.57 , 1.00 ) ( 0.01 , N/A , 0.0 )	540.1	N/A 0.0 0.0	4.2377 [ 4.0000 ]	105.9%			
NEIFOSE	( 630.0 / 59.0 ) 31631	( 10.66 , 1.00 ) ( 0.01 , N/A , 0.0 )	839.9	N/A 0.0 0.0	3.6463 [ 4.0000 ]	91.2%			
HFPO-DA	( 285.0 / 169.0 ) 134273 ( 285.0 / 185.0 ) 358772	( 6.53 , 1.00 ) ( 0.00 , N/A , 0.1 )	528.2 789.7	2.6720 101.6 101.6	2.1807 [ 2.0000 ]	109.0%			
ADONA	( 377.0 / 85.0 ) 493581 ( 377.0 / 251.0 ) 63026	( 7.43 , 1.14 ) ( N/A , -0.04 , 0.0 )	917.9 253.3	0.1277 108.3 108.3	1.8797 [ 1.8854 ]	99.7%			
9CI-PI3ONS	( 531.0 / 351.0 ) 1496463 ( 533.0 / 353.0 ) 437182	( 9.73 , 1.49 ) ( N/A , -0.01 , 0.1 )	837.0 467.1	0.2921 100.8 100.8	2.0100 [ 1.8665 ]	107.7%			
11CI-PF3OUDS	( 631.0 / 451.0 ) 985277 ( 633.0 / 453.0 ) 294025	( 10.01 , 1.53 ) ( N/A , 0.00 , 0.1 )	789.7 773.3	0.2984 94.6 94.6	2.0650 [ 1.8864 ]	109.5%			

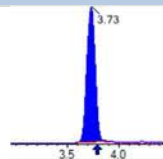
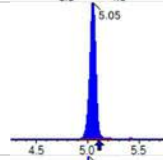
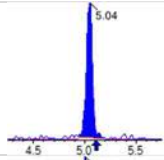
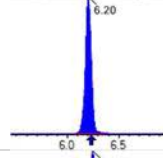
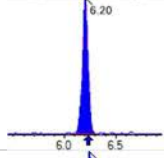
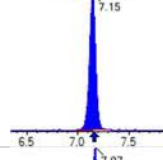
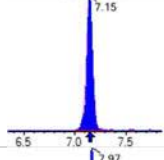
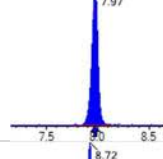
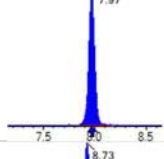
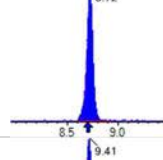
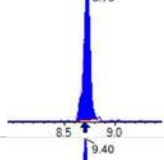
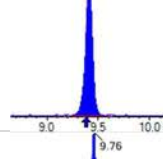
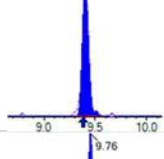
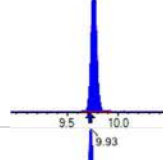
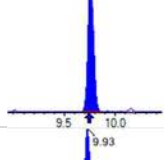
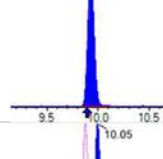
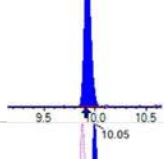
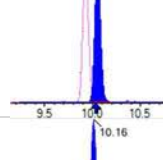
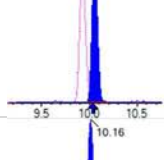
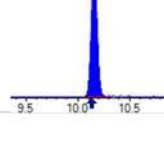
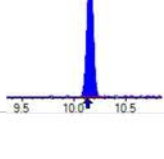


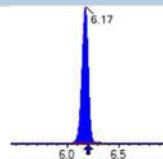
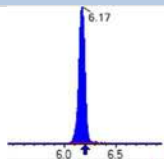
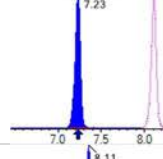
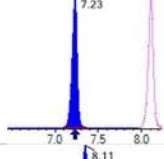
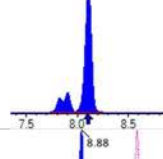
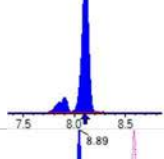
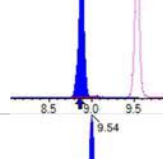
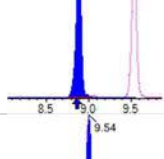
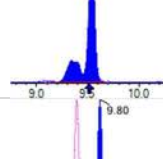
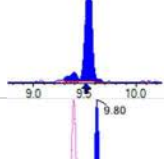
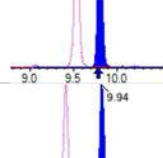
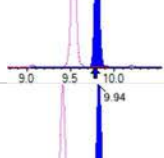
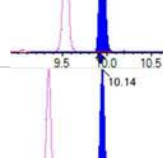
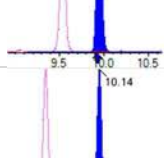
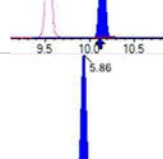
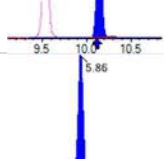
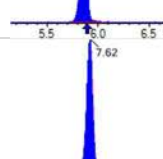
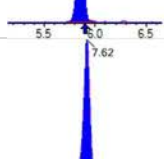
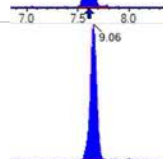
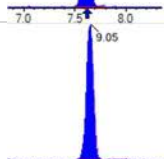

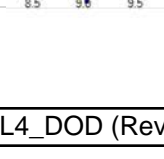
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 15864 (241.0 / 117.0) 25929	(4.56, 0.90) (N/A, -0.06, 0.0)	269.3 352.9	1.6345 99.7 99.7	4.0668 [4.0000]	101.7%			
5:3FTCA	(341.0 / 236.7) 129323 (341.0 / 217.0) 197212	(6.82, 1.10) (N/A, -0.05, -0.1)	544.0 535.9	1.5250 96.8 96.8	4.6862 [4.0000]	117.2%			
7:3FTCA	(441.0 / 317.0) 142868 (441.0 / 337.0) 120048	(8.64, 1.40) (N/A, -0.04, 0.2)	295.9 276.8	0.8403 100.3 100.3	4.1377 [4.0000]	103.4%			
PFEESA	(315.0 / 135.0) 268946 (315.0 / 83.0) 76675	(6.65, 1.08) (N/A, -0.05, 0.1)	700.7 361.7	0.2851 93.0 93.0	1.7907 [1.7849]	100.3%			
PFMPA	(229.0 / 85.0) 56395	(4.25, 0.84) (N/A, -0.05, 0.0)	1073.5	N/A 0.0 0.0	2.2383 [2.0000]	111.9%			
PFMBA	(279.0 / 85.0) 170354	(5.44, 1.08) (N/A, -0.05, 0.0)	1011.5	N/A 0.0 0.0	2.0202 [2.0000]	101.0%			
NFDHA	(201.0 / 85.0) 5239 (295.0 / 201.0) 43731	(6.08, 0.98) (N/A, -0.04, 0.7)	4322.4 409.9	8.3466 126.7 126.7	1.7496 [2.0000]	87.5%			
13C3_PFBA_IIS	(216.0 / 172.0) 123217	(3.75, N/A) (N/A, -0.05, N/A)	664.9	N/A	1.0155 [1.0000]	101.6% {97.3%}			
13C2_PFHxA_IIS	(315.1 / 270.0) 180863	(6.18, N/A) (N/A, -0.05, N/A)	639.2	N/A	0.9911 [1.0000]	99.1% {92.4%}			
13C4_PFOA_IIS	(417.0 / 372.0) 178855	(7.93, N/A) (N/A, -0.04, N/A)	693.3	N/A	1.0246 [1.0000]	102.5% {101.5%}			
13C5_PFNA_IIS	(468.0 / 423.0) 124477	(8.67, N/A) (N/A, -0.04, N/A)	361.1	N/A	0.9160 [1.0000]	91.6% {94.3%}			

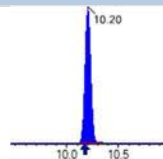
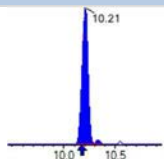
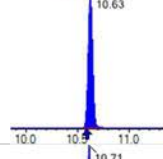
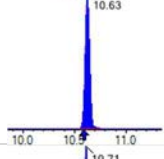
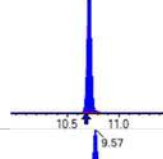
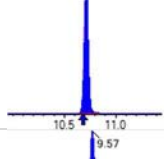
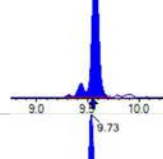
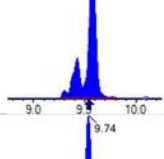
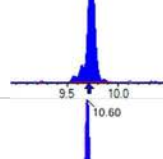
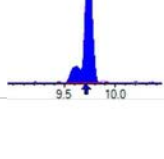
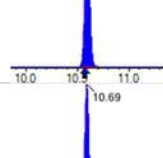
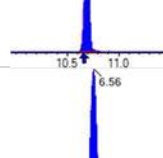
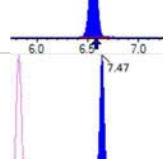
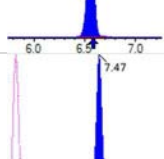
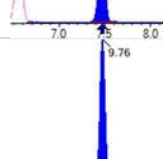
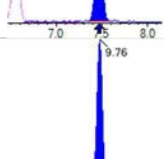
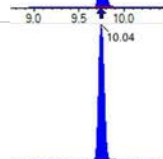
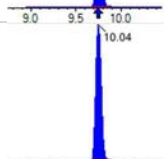

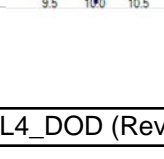
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 145971	(9.35, N/A) (N/A, -0.03, N/A)	439.8	N/A	1.0520 [ 1.0000 ]	105.2% { 103.3% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 280404	(8.06, N/A) (N/A, -0.04, N/A)	601.9	N/A	0.8688 [ 1.0000 ]	86.9% { 83.6% }			
13C4_PFOS_IIS	(502.8 / 79.9) 247940	(9.49, N/A) (N/A, -0.02, N/A)	508.0	N/A	0.9846 [ 1.0000 ]	98.5% { 89.9% }			
13C4_PFBA_EIS	(217.0 / 172.0) 788825	(3.75, N/A) (N/A, -0.05, N/A)	844.2	N/A	8.3986 [ 8.0000 ]	105.0% { 99.2% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 418273	(5.05, N/A) (N/A, -0.05, N/A)	968.1	N/A	4.1761 [ 4.0000 ]	104.4% { 98.1% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 311255	(6.18, N/A) (N/A, -0.04, N/A)	797.6	N/A	2.0420 [ 2.0000 ]	102.1% { 98.3% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 271930	(7.11, N/A) (N/A, -0.05, N/A)	747.8	N/A	2.0552 [ 2.0000 ]	102.8% { 94.2% }			
13C8_PFOA_EIS	(421.0 / 376.0) 303011	(7.92, N/A) (N/A, -0.04, N/A)	739.1	N/A	2.2094 [ 2.0000 ]	110.5% { 111.7% }			
13C9_PFNA_EIS	(472.0 / 427.0) 110892	(8.66, N/A) (N/A, -0.04, N/A)	451.7	N/A	1.1563 [ 1.0000 ]	115.6% { 102.8% }			
13C6_PFDA_EIS	(519.0 / 474.0) 124317	(9.35, N/A) (N/A, -0.03, N/A)	356.0	N/A	0.8880 [ 1.0000 ]	88.8% { 102.2% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 200241	(9.73, N/A) (N/A, -0.01, N/A)	559.9	N/A	1.0414 [ 1.0000 ]	104.1% { 107.8% }			

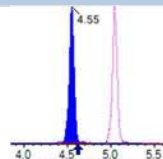
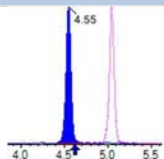
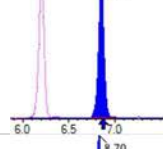
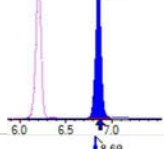
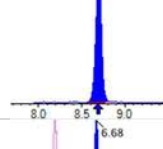
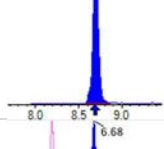
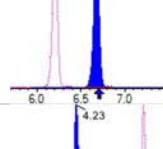
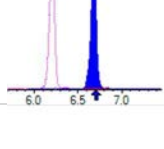
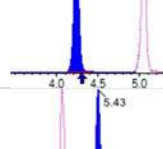
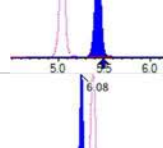
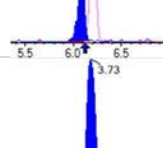
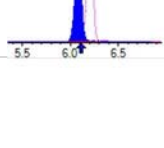
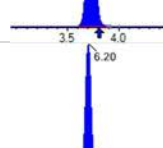
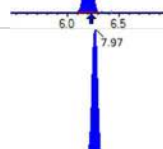
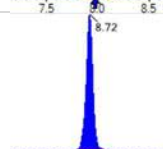
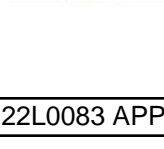
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 215256	(9.90, N/A) (N/A, 0.00, N/A)	270.0	N/A	0.9104 [ 1.0000 ]	91.0% { 88.1% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 161157	(10.13, N/A) (N/A, 0.00, N/A)	471.6	N/A	1.0855 [ 1.0000 ]	108.5% { 108.3% }			
13C3_PFBs_EIS	(302.0 / 80.0) 712022	(6.15, N/A) (N/A, -0.05, N/A)	814.1	N/A	2.2069 [ 2.0000 ]	110.3% { 92.2% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 432539	(8.06, N/A) (N/A, -0.04, N/A)	792.2	N/A	2.3822 [ 2.0000 ]	119.1% { 96.5% }			
13C8_PFOS_EIS	(507.0 / 80.0) 712886	(9.49, N/A) (N/A, -0.02, N/A)	614.2	N/A	2.3093 [ 2.0000 ]	115.5% { 111.5% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 86760	(5.85, N/A) (N/A, -0.05, N/A)	552.9	N/A	4.6010 [ 4.0000 ]	115.0% { 92.9% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 104379	(7.57, N/A) (N/A, -0.05, N/A)	579.1	N/A	4.5272 [ 4.0000 ]	113.2% { 93.8% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 102270	(8.99, N/A) (N/A, -0.03, N/A)	334.2	N/A	4.4460 [ 4.0000 ]	111.1% { 92.4% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 868083	(10.17, N/A) (N/A, 0.00, N/A)	752.1	N/A	1.8591 [ 2.0000 ]	93.0% { 83.9% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 261253	(10.59, N/A) (N/A, 0.00, N/A)	1332.1	N/A	2.1797 [ 2.0000 ]	109.0% { 111.7% }			
D5_NeIFOSA_EIS	(531.1 / 169.0) 219027	(10.68, N/A) (N/A, 0.00, N/A)	1514.2	N/A	2.1062 [ 2.0000 ]	105.3% { 102.1% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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 ) 310510	( 9.53 , N/A ) ( N/A , -0.02 , N/A )	387.9	N/A	4.2497 [ 4.0000 ]	106.2% { 98.2% }			
D5_EtFOSAA_EIS	( 589.0 / 419.0 ) 291996	( 9.70 , N/A ) ( N/A , -0.01 , N/A )	468.5	N/A	4.4166 [ 4.0000 ]	110.4% { 98.6% }			
D7_NMeFOSE_EIS	( 623.2 / 58.9 ) 473858	( 10.56 , N/A ) ( N/A , 0.00 , N/A )	1209.3	N/A	20.6221 [ 20.0000 ]	103.1% { 104.4% }			
D9_NEtFOSE_EIS	( 639.2 / 58.9 ) 256439	( 10.66 , N/A ) ( N/A , 0.00 , N/A )	1119.3	N/A	22.2722 [ 20.0000 ]	111.4% { 106.9% }			
13C3_HFPODA_EIS	( 287.0 / 169.0 ) 796536	( 6.53 , N/A ) ( N/A , -0.04 , N/A )	723.5	N/A	8.5313 [ 8.0000 ]	106.6% { 106.3% }			

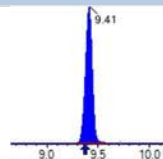
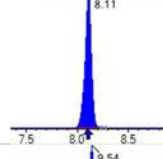
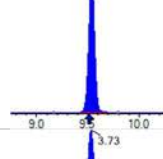
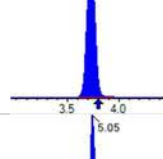
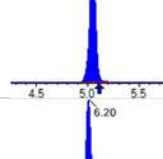
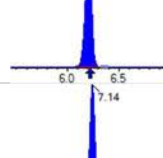
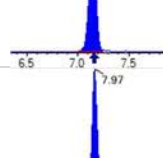
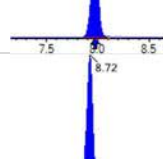
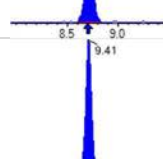
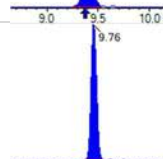

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 550373	(3.73, 1.00) (0.00, N/A, 0.0)	58.9	N/A 0.0 0.0	7.5900 [ 8.0000 ]	94.9%			
PFPeA	(262.9 / 219.0) 383100 (262.9 / 69.0) 4305	(5.05, 1.00) (0.00, N/A, 0.3)	709.0 112.5	0.0112 89.5 89.5	4.0729 [ 4.0000 ]	101.8%			
PFHxA	(313.0 / 269.0) 324173 (313.0 / 119.0) 27576	(6.20, 1.00) (0.00, N/A, 0.1)	667.7 266.6	0.0851 91.9 91.9	2.2752 [ 2.0000 ]	113.8%			
PFHpA	(363.0 / 319.0) 256354 (363.0 / 169.0) 78391	(7.15, 1.00) (0.00, N/A, -0.1)	399.5 489.1	0.3058 98.3 98.3	2.0746 [ 2.0000 ]	103.7%			
PFOA	(413.0 / 369.0) 281677 (413.0 / 169.0) 81439	(7.97, 1.00) (0.00, N/A, 0.2)	513.6 615.7	0.2891 86.1 86.1	2.1612 [ 2.0000 ]	108.1%			
PFNA	(463.0 / 419.0) 216490 (463.0 / 169.0) 38771	(8.72, 1.00) (0.00, N/A, -0.1)	461.9 58.9	0.1791 102.0 102.0	2.0787 [ 2.0000 ]	103.9%			
PFDA	(513.0 / 469.0) 268294 (513.0 / 169.0) 27057	(9.41, 1.00) (0.00, N/A, 0.4)	272.9 488.7	0.1008 100.2 100.2	1.8135 [ 2.0000 ]	90.7%			
PFUnA	(563.0 / 519.0) 346382 (563.0 / 169.0) 34030	(9.76, 1.00) (0.00, N/A, 0.1)	569.8 448.9	0.0982 107.3 107.3	2.0159 [ 2.0000 ]	100.8%			
PFDoA	(613.0 / 569.0) 411487 (613.0 / 169.0) 64177	(9.93, 1.00) (0.00, N/A, 0.3)	574.0 365.1	0.1560 121.7 121.7	2.1263 [ 2.0000 ]	106.3%			
PFTTrDA	(663.0 / 619.0) 334895 (663.0 / 169.0) 61327	(10.05, 1.01) (N/A, 0.03, 0.0)	593.0 689.7	0.1831 83.4 83.4	2.0990 [ 2.0000 ]	105.0%			
PFTTeDA	(713.0 / 669.0) 272344 (713.0 / 169.0) 47627	(10.16, 1.00) (0.00, N/A, 0.0)	456.3 203.3	0.1749 94.0 94.0	1.8884 [ 2.0000 ]	94.4%			

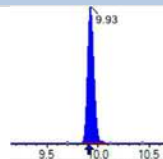
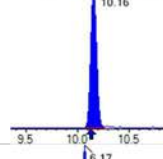
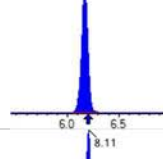
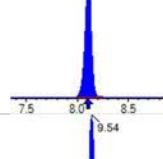
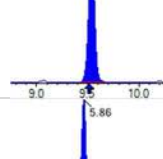
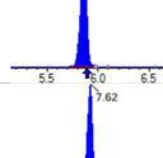
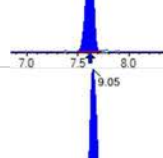
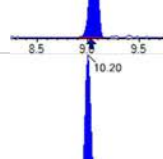
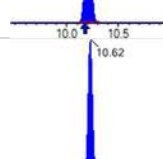
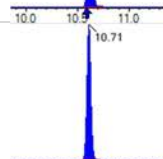

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 394838 (298.9 / 99.0) 255282	(6.17, 1.00) (0.00, N/A, 0.2)	894.8 608.3	0.6465 89.8 89.8	1.7849 [ 1.7695 ]	100.9%			
PFPeS	(349.0 / 80.0) 735475 (349.0 / 99.0) 258656	(7.23, 0.89) (N/A, -0.01, 0.1)	728.3 789.1	0.3517 93.9 93.9	2.0314 [ 1.8768 ]	108.2%			
PFHxS	(399.0 / 80.0) 647267 (399.0 / 99.0) 210842	(8.11, 1.00) (0.00, N/A, 0.1)	3082.7 7097017.9	0.3257 101.0 101.0	1.9585 [ 1.8220 ]	107.5%			
PFHpS	(449.0 / 80.0) 557426 (449.0 / 99.0) 166159	(8.88, 0.93) (N/A, 0.02, -0.3)	619.2 584.9	0.2981 97.1 97.1	1.9512 [ 1.9028 ]	102.5%			
PFOS	(499.0 / 80.0) 679722 (499.0 / 99.0) 147898	(9.54, 1.00) (0.00, N/A, -0.1)	133.9 224.2	0.2176 94.8 94.8	1.9578 [ 1.8550 ]	105.5%			
PFNS	(549.0 / 80.0) 874769 (549.0 / 99.0) 233196	(9.80, 1.03) (N/A, 0.03, 0.0)	588.8 563.9	0.2666 102.8 102.8	2.0449 [ 1.9198 ]	106.5%			
PFDS	(599.0 / 80.0) 1132238 (599.0 / 99.0) 261904	(9.94, 1.04) (N/A, 0.03, 0.0)	833.0 372.5	0.2313 102.8 102.8	2.0133 [ 1.9262 ]	104.5%			
PFDoS	(698.9 / 80.0) 620326 (698.9 / 99.0) 134667	(10.14, 1.06) (N/A, 0.03, 0.0)	909.9 589.1	0.2171 107.2 107.2	2.1805 [ 1.9391 ]	112.4%			
4:2FTS	(327.0 / 307.0) 583713 (327.0 / 81.0) 342931	(5.86, 1.00) (0.00, N/A, 0.0)	554.4 569.1	0.5875 96.8 96.8	7.6540 [ 7.4762 ]	102.4%			
6:2FTS	(427.0 / 407.0) 346947 (427.0 / 81.0) 249994	(7.62, 1.00) (0.00, N/A, -0.1)	799.8 699.0	0.7206 110.9 110.9	8.2249 [ 7.5923 ]	108.3%			
8:2FTS	(527.0 / 507.0) 272160 (527.0 / 81.0) 184884	(9.06, 1.00) (0.00, N/A, 0.5)	443.7 417.4	0.6793 108.4 108.4	8.1586 [ 7.6663 ]	106.4%			

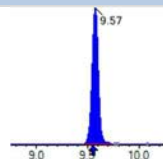
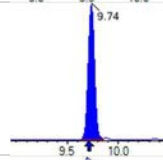
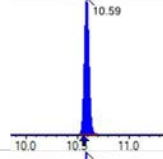
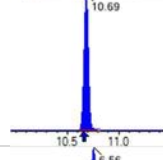
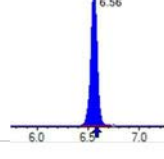
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 1055355 (498.0 / 478.0) 23717	(10.20, 1.00) (0.00, N/A, -0.2)	1740.9 915.3	0.0225 98.7 98.7	2.0546 [2.0000]	102.7%			
NMeFOSA	(511.9 / 219.0) 941469 (511.9 / 169.0) 600724	(10.63, 1.00) (0.00, N/A, 0.0)	1442.5 1273.9	0.6381 100.0 100.0	9.0831 [8.0000]	113.5%			
NEIFOSA	(526.0 / 219.0) 832227 (526.0 / 169.0) 857007	(10.71, 1.00) (0.00, N/A, 0.0)	1232.2 1584.6	1.0298 96.5 96.5	8.3617 [8.0000]	104.5%			
NMeFOSAA	(570.0 / 419.0) 142744 (570.0 / 483.0) 67173	(9.57, 1.00) (0.00, N/A, -0.1)	392.8 1469.6	0.4706 82.0 82.0	2.4171 [2.0000]	120.9%			
NEIFOSAA	(584.0 / 419.0) 129386 (584.0 / 526.0) 81840	(9.73, 1.00) (0.00, N/A, -0.1)	885.2 141670.6	0.6325 111.6 111.6	2.0121 [2.0000]	100.6%			
NMeFOSE	(616.1 / 59.0) 274757	(10.60, 1.00) (0.01, N/A, 0.0)	1125.9	N/A 0.0 0.0	8.1002 [8.0000]	101.3%			
NEtFOSE	(630.0 / 59.0) 70326	(10.69, 1.00) (0.01, N/A, 0.0)	1118.0	N/A 0.0 0.0	7.9166 [8.0000]	99.0%			
HFPO-DA	(285.0 / 169.0) 233541 (285.0 / 185.0) 742104	(6.56, 1.00) (0.00, N/A, -0.1)	585.7 1161.5	3.1776 120.8 120.8	3.9237 [4.0000]	98.1%			
ADONA	(377.0 / 85.0) 992581 (377.0 / 251.0) 114079	(7.47, 1.14) (N/A, 0.00, -0.1)	771.3 344.3	0.1149 97.5 97.5	3.9105 [3.7708]	103.7%			
9CI-Pf3ONS	(531.0 / 351.0) 2944974 (533.0 / 353.0) 963571	(9.76, 1.49) (N/A, 0.03, -0.1)	1153.7 611.1	0.3272 112.9 112.9	4.0920 [3.7330]	109.6%			
11CI-PF3OUDS	(631.0 / 451.0) 1815586 (633.0 / 453.0) 570123	(10.04, 1.53) (N/A, 0.03, -0.1)	920.5 823.1	0.3140 99.5 99.5	3.9365 [3.7728]	104.3%			

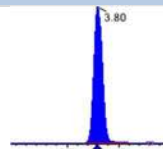
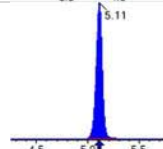
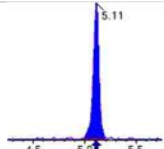
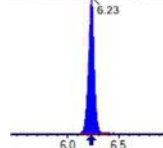
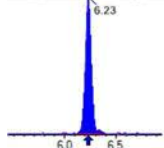
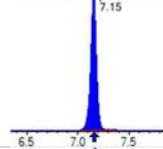
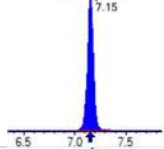
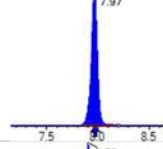
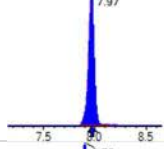
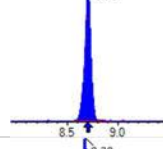
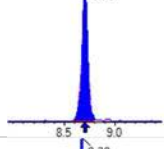
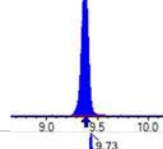
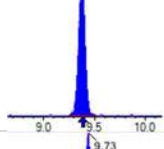
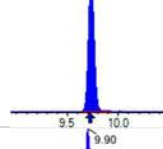
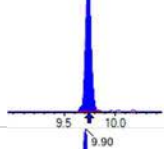
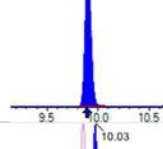
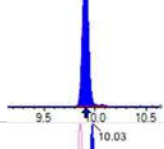
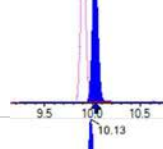
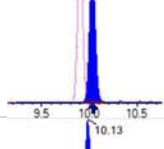
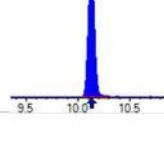
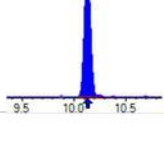
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 33053 (241.0 / 117.0) 55388	(4.55, 0.90) (N/A, -0.07, 0.1)	462.3 524.5	1.6757 102.2 102.2	8.3616 [ 8.0000 ]	104.5%			
5:3FTCA	(341.0 / 236.7) 240504 (341.0 / 217.0) 380811	(6.86, 1.11) (N/A, -0.02, -0.1)	505.8 525.4	1.5834 100.5 100.5	8.4360 [ 8.0000 ]	105.4%			
7:3FTCA	(441.0 / 317.0) 270458 (441.0 / 337.0) 228342	(8.70, 1.40) (N/A, 0.02, 0.2)	386.2 381.4	0.8443 100.8 100.8	7.5821 [ 8.0000 ]	94.8%			
PFEESA	(315.0 / 135.0) 555840 (315.0 / 83.0) 163848	(6.68, 1.08) (N/A, -0.02, -0.2)	908.1 583.9	0.2948 96.1 96.1	3.5824 [ 3.5698 ]	100.4%			
PFMPA	(229.0 / 85.0) 108229	(4.23, 0.84) (N/A, -0.07, 0.0)	1043.4	N/A 0.0 0.0	4.2388 [ 4.0000 ]	106.0%			
PFMBA	(279.0 / 85.0) 378453	(5.43, 1.08) (N/A, -0.06, 0.0)	1072.8	N/A 0.0 0.0	4.4289 [ 4.0000 ]	110.7%			
NFDHA	(201.0 / 85.0) 9685 (295.0 / 201.0) 80182	(6.08, 0.98) (N/A, -0.03, -0.1)	177.7 476.3	8.2791 125.7 125.7	3.2283 [ 4.0000 ]	80.7%			
13C3_PFBA_IIS	(216.0 / 172.0) 132728	(3.73, N/A) (N/A, -0.07, N/A)	604.4	N/A	1.0939 [ 1.0000 ]	109.4% { 104.8% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 193801	(6.20, N/A) (N/A, -0.03, N/A)	791.7	N/A	1.0620 [ 1.0000 ]	106.2% { 99.0% }			
13C4_PFOA_IIS	(417.0 / 372.0) 178666	(7.97, N/A) (N/A, 0.01, N/A)	514.6	N/A	1.0235 [ 1.0000 ]	102.3% { 101.4% }			
13C5_PFNxA_IIS	(468.0 / 423.0) 148350	(8.72, N/A) (N/A, 0.02, N/A)	576.2	N/A	1.0917 [ 1.0000 ]	109.2% { 112.4% }			

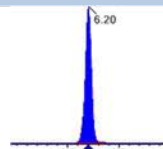
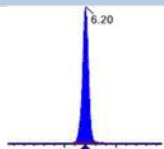
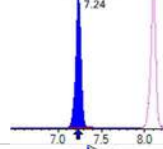
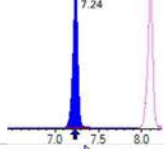
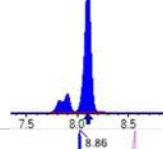
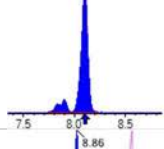
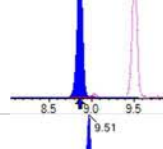
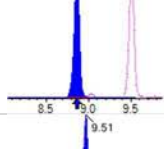
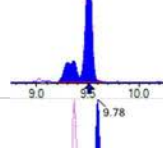
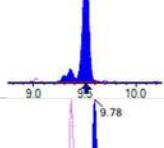
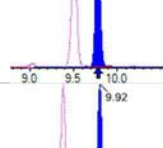
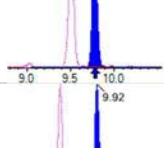
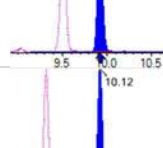
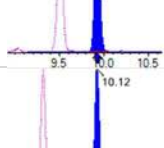
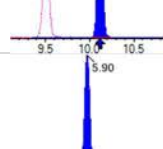
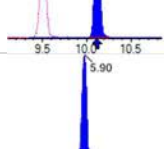
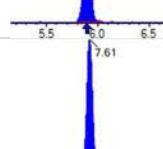
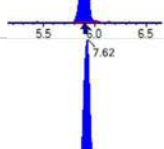
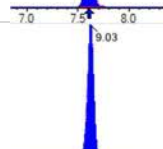
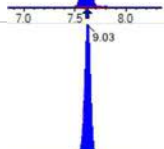

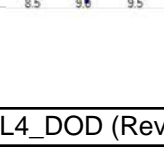


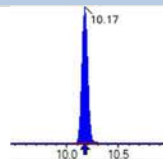
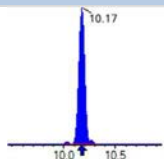
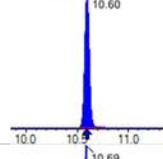
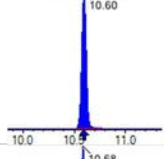
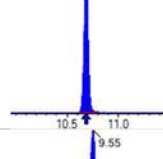
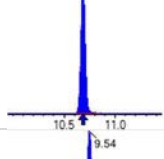
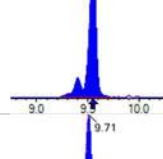
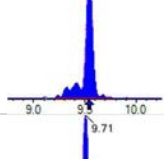
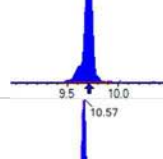
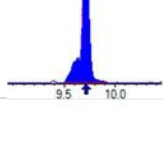
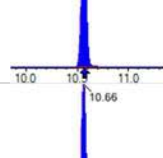
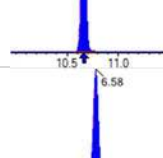
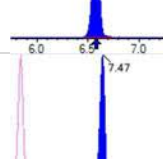
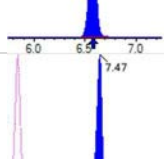
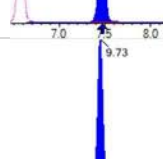
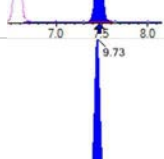
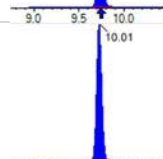
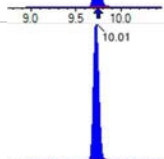

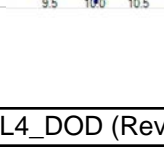
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 140731	(9.41, N/A) (N/A, 0.03, N/A)	607.4	N/A	1.0142 [ 1.0000 ]	101.4% { 99.6% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 317973	(8.11, N/A) (N/A, 0.01, N/A)	699.8	N/A	0.9852 [ 1.0000 ]	98.5% { 94.8% }			
13C4_PFOS_IIS	(502.8 / 79.9) 260978	(9.54, N/A) (N/A, 0.03, N/A)	472.4	N/A	1.0364 [ 1.0000 ]	103.6% { 94.6% }			
13C4_PFBA_EIS	(217.0 / 172.0) 825826	(3.73, N/A) (N/A, -0.07, N/A)	762.6	N/A	8.1624 [ 8.0000 ]	102.0% { 103.8% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 423866	(5.05, N/A) (N/A, -0.06, N/A)	782.6	N/A	3.9494 [ 4.0000 ]	98.7% { 99.4% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 321554	(6.20, N/A) (N/A, -0.02, N/A)	734.6	N/A	1.9688 [ 2.0000 ]	98.4% { 101.6% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 267032	(7.14, N/A) (N/A, -0.01, N/A)	685.9	N/A	1.8834 [ 2.0000 ]	94.2% { 92.5% }			
13C8_PFOA_EIS	(421.0 / 376.0) 260844	(7.97, N/A) (N/A, 0.00, N/A)	728.6	N/A	1.9040 [ 2.0000 ]	95.2% { 96.2% }			
13C9_PFNA_EIS	(472.0 / 427.0) 114240	(8.72, N/A) (N/A, 0.02, N/A)	417.2	N/A	0.9995 [ 1.0000 ]	100.0% { 106.0% }			
13C6_PFDA_EIS	(519.0 / 474.0) 146316	(9.41, N/A) (N/A, 0.03, N/A)	279.9	N/A	1.0841 [ 1.0000 ]	108.4% { 120.2% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 198071	(9.76, N/A) (N/A, 0.03, N/A)	536.8	N/A	1.0685 [ 1.0000 ]	106.9% { 106.6% }			

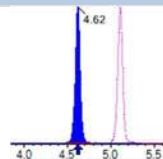
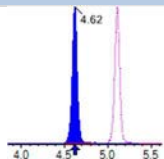
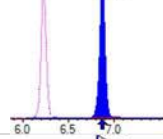
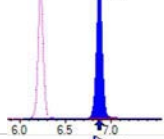
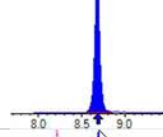
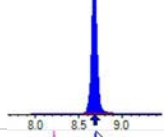
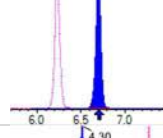
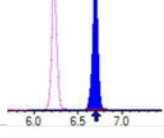
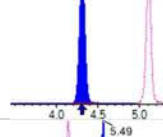
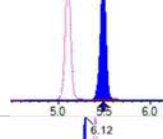
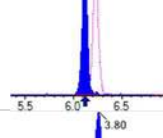
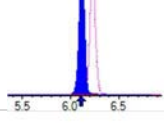
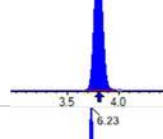
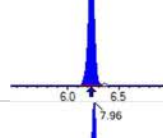
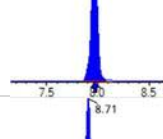
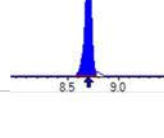
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 223471	(9.93, N/A) (N/A, 0.02, N/A)	410.5	N/A	0.9803 [ 1.0000 ]	98.0% { 91.4% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 157812	(10.16, N/A) (N/A, 0.03, N/A)	324.7	N/A	1.1025 [ 1.0000 ]	110.3% { 106.0% }			
13C3_PFBs_EIS	(302.0 / 80.0) 783023	(6.17, N/A) (N/A, -0.04, N/A)	950.5	N/A	2.1402 [ 2.0000 ]	107.0% { 101.4% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 411539	(8.11, N/A) (N/A, 0.01, N/A)	820.4	N/A	1.9987 [ 2.0000 ]	99.9% { 91.9% }			
13C8_PFOS_EIS	(507.0 / 80.0) 631472	(9.54, N/A) (N/A, 0.03, N/A)	405.0	N/A	1.9434 [ 2.0000 ]	97.2% { 98.8% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 93554	(5.86, N/A) (N/A, -0.04, N/A)	499.4	N/A	4.3751 [ 4.0000 ]	109.4% { 100.2% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 103518	(7.62, N/A) (N/A, 0.00, N/A)	386.5	N/A	3.9594 [ 4.0000 ]	99.0% { 93.0% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 93693	(9.05, N/A) (N/A, 0.02, N/A)	296.0	N/A	3.5919 [ 4.0000 ]	89.8% { 84.7% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 1047288	(10.20, N/A) (N/A, 0.03, N/A)	857.5	N/A	2.1308 [ 2.0000 ]	106.5% { 101.2% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 249176	(10.62, N/A) (N/A, 0.03, N/A)	1028.5	N/A	1.9751 [ 2.0000 ]	98.8% { 106.5% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 215343	(10.71, N/A) (N/A, 0.03, N/A)	867.1	N/A	1.9673 [ 2.0000 ]	98.4% { 100.4% }			

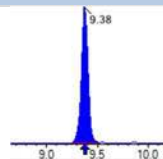
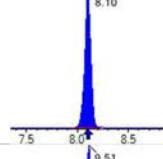
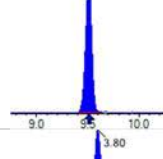
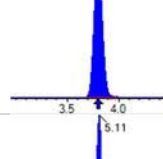
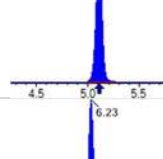
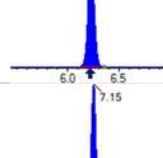
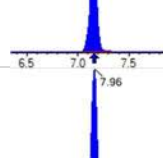
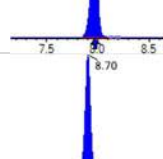
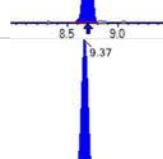
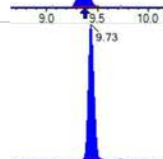

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	( 573.0 / 419.0 ) 305589	( 9.57, N/A ) ( N/A, 0.03, N/A )	480.9	N/A	3.9734 [ 4.0000 ]	99.3% { 96.7% }			
D5_EtFOSAA_EIS	( 589.0 / 419.0 ) 295476	( 9.74, N/A ) ( N/A, 0.03, N/A )	370.1	N/A	4.2460 [ 4.0000 ]	106.1% { 99.7% }			
D7_NMeFOSE_EIS	( 623.2 / 58.9 ) 502830	( 10.59, N/A ) ( N/A, 0.03, N/A )	951.3	N/A	20.7897 [ 20.0000 ]	103.9% { 110.8% }			
D9_NEtFOSE_EIS	( 639.2 / 58.9 ) 262607	( 10.69, N/A ) ( N/A, 0.03, N/A )	1646.4	N/A	21.6685 [ 20.0000 ]	108.3% { 109.5% }			
13C3_HFPODA_EIS	( 287.0 / 169.0 ) 769972	( 6.56, N/A ) ( N/A, -0.02, N/A )	619.2	N/A	7.6963 [ 8.0000 ]	96.2% { 102.8% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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	(212.9 / 169.0) 1451784	(3.80, 1.00) (0.00, N/A, 0.0)	57.0	N/A 0.0 0.0	20.7860 [ 20.0000 ]	103.9%			
PFPeA	(262.9 / 219.0) 942069 (262.9 / 69.0) 11831	(5.11, 1.00) (0.00, N/A, 0.0)	830.6 265.1	0.0126 100.0 100.0	9.9553 [ 10.0000 ]	99.6%			
PFHxA	(313.0 / 269.0) 717827 (313.0 / 119.0) 66458	(6.23, 1.00) (0.01, N/A, 0.1)	649.6 312.3	0.0926 100.0 100.0	5.1165 [ 5.0000 ]	102.3%			
PFHpA	(363.0 / 319.0) 677249 (363.0 / 169.0) 210739	(7.15, 1.00) (0.00, N/A, 0.1)	614.0 698.2	0.3112 100.0 100.0	5.0703 [ 5.0000 ]	101.4%			
PFOA	(413.0 / 369.0) 677870 (413.0 / 169.0) 227509	(7.97, 1.00) (0.00, N/A, 0.0)	649.5 813.0	0.3356 100.0 100.0	5.0029 [ 5.0000 ]	100.1%			
PFNA	(463.0 / 419.0) 540194 (463.0 / 169.0) 94807	(8.70, 1.00) (0.00, N/A, 0.1)	536.7 97.0	0.1755 100.0 100.0	5.4955 [ 5.0000 ]	109.9%			
PFDA	(513.0 / 469.0) 641896 (513.0 / 169.0) 64612	(9.38, 1.00) (0.00, N/A, 0.0)	540.7 425.7	0.1007 100.0 100.0	5.2169 [ 5.0000 ]	104.3%			
PFUnA	(563.0 / 519.0) 842655 (563.0 / 169.0) 77130	(9.73, 1.00) (0.00, N/A, -0.1)	701.7 256.2	0.0915 100.0 100.0	5.2291 [ 5.0000 ]	104.6%			
PFDoA	(613.0 / 569.0) 999990 (613.0 / 169.0) 128182	(9.90, 1.00) (0.00, N/A, -0.3)	784.8 320.7	0.1282 100.0 100.0	4.7241 [ 5.0000 ]	94.5%			
PFTTrDA	(663.0 / 619.0) 802825 (663.0 / 169.0) 176312	(10.03, 1.01) (N/A, 0.00, -0.1)	1200.6 326.8	0.2196 100.0 100.0	4.6003 [ 5.0000 ]	92.0%			
PFTeDA	(713.0 / 669.0) 763866 (713.0 / 169.0) 142124	(10.13, 1.00) (0.00, N/A, 0.0)	715.6 493.4	0.1861 100.0 100.0	5.6164 [ 5.0000 ]	112.3%			

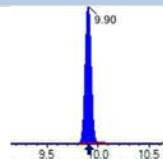
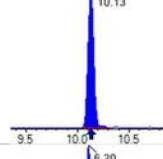
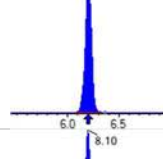
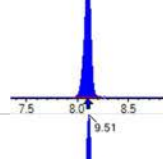
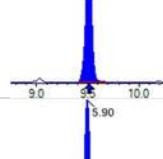
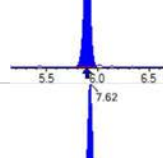
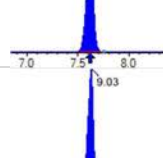
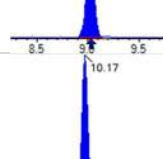
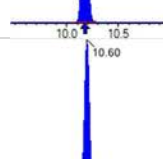
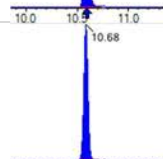

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	( 298.9 / 80.0 ) 952464 ( 298.9 / 99.0 ) 686132	( 6.20 , 1.00 ) ( 0.00 , N/A , -0.1)	750.9 758.0	0.7204 100.0 100.0	4.3675 [ 4.4237 ]	98.7%			
PFPeS	( 349.0 / 80.0 ) 1815723 ( 349.0 / 99.0 ) 679968	( 7.24 , 0.89 ) ( N/A , 0.00 , 0.0)	677.6 813.0	0.3745 100.0 100.0	4.6068 [ 4.6919 ]	98.2%			
PFHxS	( 399.0 / 80.0 ) 1603418 ( 399.0 / 99.0 ) 517182	( 8.10 , 1.00 ) ( 0.00 , N/A , 0.1)	3494.2 4342.9	0.3225 100.0 100.0	4.4568 [ 4.5549 ]	97.8%			
PFHpS	( 449.0 / 80.0 ) 1304754 ( 449.0 / 99.0 ) 400571	( 8.86 , 0.93 ) ( N/A , 0.00 , 0.0)	401.8 688.7	0.3070 100.0 100.0	4.5104 [ 4.7570 ]	94.8%			
PFOS	( 499.0 / 80.0 ) 1736074 ( 499.0 / 99.0 ) 398421	( 9.51 , 1.00 ) ( 0.00 , N/A , 0.0)	134.4 219.1	0.2295 100.0 100.0	4.9384 [ 4.6375 ]	106.5%			
PFNS	( 549.0 / 80.0 ) 2036861 ( 549.0 / 99.0 ) 528136	( 9.78 , 1.03 ) ( N/A , 0.00 , 0.1)	997.0 467.0	0.2593 100.0 100.0	4.7025 [ 4.7994 ]	98.0%			
PFDS	( 599.0 / 80.0 ) 2788383 ( 599.0 / 99.0 ) 627639	( 9.92 , 1.04 ) ( N/A , 0.00 , -0.1)	1395.7 794.1	0.2251 100.0 100.0	4.8968 [ 4.8155 ]	101.7%			
PFDoS	( 698.9 / 80.0 ) 1481972 ( 698.9 / 99.0 ) 300054	( 10.12 , 1.06 ) ( N/A , 0.00 , 0.0)	968.3 505.0	0.2025 100.0 100.0	5.1448 [ 4.8478 ]	106.1%			
4:2FTS	( 327.0 / 307.0 ) 1320032 ( 327.0 / 81.0 ) 801073	( 5.90 , 1.00 ) ( 0.00 , N/A , -0.1)	1102.0 831.3	0.6069 100.0 100.0	17.3428 [ 18.6906 ]	92.8%			
6:2FTS	( 427.0 / 407.0 ) 943886 ( 427.0 / 81.0 ) 613244	( 7.61 , 1.00 ) ( 0.00 , N/A , -0.1)	945.7 770.7	0.6497 100.0 100.0	20.8171 [ 18.9808 ]	109.7%			
8:2FTS	( 527.0 / 507.0 ) 758649 ( 527.0 / 81.0 ) 475612	( 9.03 , 1.00 ) ( 0.00 , N/A , 0.0)	493.4 413.1	0.6269 100.0 100.0	19.2556 [ 19.1658 ]	100.5%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 2357744 (498.0 / 478.0) 53675	(10.17, 1.00) (0.00, N/A, 0.0)	812.6 5518.1	0.0228 100.0 100.0	4.6447 [ 5.0000 ]	92.9%			
NMeFOSA	(511.9 / 219.0) 2010184 (511.9 / 169.0) 1282524	(10.60, 1.00) (0.00, N/A, 0.0)	1292.0 963.8	0.6380 100.0 100.0	20.6539 [ 20.0000 ]	103.3%			
NEIFOSA	(526.0 / 219.0) 1944163 (526.0 / 169.0) 2075464	(10.69, 1.00) (0.00, N/A, 0.0)	1416.4 1380.3	1.0675 100.0 100.0	19.6094 [ 20.0000 ]	98.0%			
NMeFOSAA	(570.0 / 419.0) 266213 (570.0 / 483.0) 152810	(9.55, 1.00) (0.00, N/A, 0.3)	377.0 709.6	0.5740 100.0 100.0	4.3576 [ 5.0000 ]	87.2%			
NEIFOSAA	(584.0 / 419.0) 293472 (584.0 / 526.0) 166369	(9.71, 1.00) (0.00, N/A, 0.1)	922.5 237323.0	0.5669 100.0 100.0	4.5514 [ 5.0000 ]	91.0%			
NMeFOSE	(616.1 / 59.0) 584126	(10.57, 1.00) (0.01, N/A, 0.0)	880.5	N/A 0.0 0.0	19.0837 [ 20.0000 ]	95.4%			
NEtFOSE	(630.0 / 59.0) 168571	(10.66, 1.00) (0.01, N/A, 0.0)	1330.5	N/A 0.0 0.0	20.7711 [ 20.0000 ]	103.9%			
HFPO-DA	(285.0 / 169.0) 628393 (285.0 / 185.0) 1652722	(6.58, 1.00) (0.00, N/A, 0.0)	743.4 920.7	2.6301 100.0 100.0	10.8519 [ 10.0000 ]	108.5%			
ADONA	(377.0 / 85.0) 2362618 (377.0 / 251.0) 278551	(7.47, 1.14) (N/A, 0.00, -0.1)	570.1 578.8	0.1179 100.0 100.0	9.5676 [ 9.4270 ]	101.5%			
9CI-Pf3ONS	(531.0 / 351.0) 6695345 (533.0 / 353.0) 1941166	(9.73, 1.48) (N/A, 0.00, 0.0)	1062.1 870.7	0.2899 100.0 100.0	9.5624 [ 9.3325 ]	102.5%			
11CI-PF3OUDS	(631.0 / 451.0) 4524705 (633.0 / 453.0) 1427390	(10.01, 1.52) (N/A, 0.00, 0.1)	1298.5 892.1	0.3155 100.0 100.0	10.0839 [ 9.4321 ]	106.9%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 80109 (241.0 / 117.0) 131321	(4.62, 0.90) (N/A, 0.00, 0.1)	591.4 636.7	1.6393 100.0 100.0	20.1433 [ 20.0000 ]	100.7%			
5:3FTCA	(341.0 / 236.7) 600052 (341.0 / 217.0) 945748	(6.87, 1.10) (N/A, 0.00, 0.0)	592.3 683.0	1.5761 100.0 100.0	21.3749 [ 20.0000 ]	106.9%			
7:3FTCA	(441.0 / 317.0) 673505 (441.0 / 337.0) 564266	(8.68, 1.39) (N/A, 0.00, 0.0)	432.5 523.9	0.8378 100.0 100.0	19.1749 [ 20.0000 ]	95.9%			
PFEESA	(315.0 / 135.0) 1361458 (315.0 / 83.0) 417468	(6.70, 1.08) (N/A, 0.00, 0.1)	951.6 861.7	0.3066 100.0 100.0	8.9112 [ 8.9246 ]	99.9%			
PFMPA	(229.0 / 85.0) 245313	(4.30, 0.84) (N/A, 0.00, 0.0)	975.6	N/A 0.0 0.0	9.5500 [ 10.0000 ]	95.5%			
PFMBA	(279.0 / 85.0) 842570	(5.49, 1.07) (N/A, 0.00, 0.0)	982.5	N/A 0.0 0.0	9.8010 [ 10.0000 ]	98.0%			
NFDHA	(201.0 / 85.0) 30832 (295.0 / 201.0) 203076	(6.12, 0.98) (N/A, 0.00, 0.1)	467.9 756.9	6.5866 100.0 100.0	10.7140 [ 10.0000 ]	107.1%			
13C3_PFBa_IIS	(216.0 / 172.0) 126651	(3.80, N/A) (N/A, 0.00, N/A)	763.9	N/A	1.0438 [ 1.0000 ]	104.4% { 100.0% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 195743	(6.23, N/A) (N/A, 0.00, N/A)	630.0	N/A	1.0727 [ 1.0000 ]	107.3% { 100.0% }			
13C4_PFOA_IIS	(417.0 / 372.0) 176199	(7.96, N/A) (N/A, 0.00, N/A)	745.3	N/A	1.0094 [ 1.0000 ]	100.9% { 100.0% }			
13C5_PFNxA_IIS	(468.0 / 423.0) 131943	(8.71, N/A) (N/A, 0.00, N/A)	501.0	N/A	0.9710 [ 1.0000 ]	97.1% { 100.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 141296	(9.38, N/A) (N/A, 0.00, N/A)	430.2	N/A	1.0183 [ 1.0000 ]	101.8% { 100.0% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 335317	(8.10, N/A) (N/A, 0.00, N/A)	642.8	N/A	1.0390 [ 1.0000 ]	103.9% { 100.0% }			
13C4_PFOS_IIS	(502.8 / 79.9) 275762	(9.51, N/A) (N/A, 0.00, N/A)	510.8	N/A	1.0951 [ 1.0000 ]	109.5% { 100.0% }			
13C4_PFBA_EIS	(217.0 / 172.0) 795432	(3.80, N/A) (N/A, 0.00, N/A)	876.6	N/A	8.2393 [ 8.0000 ]	103.0% { 100.0% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 426431	(5.11, N/A) (N/A, 0.00, N/A)	776.3	N/A	3.9339 [ 4.0000 ]	98.3% { 100.0% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 316628	(6.23, N/A) (N/A, 0.00, N/A)	866.6	N/A	1.9194 [ 2.0000 ]	96.0% { 100.0% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 288649	(7.15, N/A) (N/A, 0.00, N/A)	667.7	N/A	2.0157 [ 2.0000 ]	100.8% { 100.0% }			
13C8_PFOA_EIS	(421.0 / 376.0) 271182	(7.96, N/A) (N/A, 0.00, N/A)	568.6	N/A	2.0071 [ 2.0000 ]	100.4% { 100.0% }			
13C9_PFNA_EIS	(472.0 / 427.0) 107823	(8.70, N/A) (N/A, 0.00, N/A)	378.0	N/A	1.0607 [ 1.0000 ]	106.1% { 100.0% }			
13C6_PFDA_EIS	(519.0 / 474.0) 121687	(9.37, N/A) (N/A, 0.00, N/A)	496.1	N/A	0.8980 [ 1.0000 ]	89.8% { 100.0% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 185762	(9.73, N/A) (N/A, 0.00, N/A)	533.5	N/A	0.9981 [ 1.0000 ]	99.8% { 100.0% }			



Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[min], $\Delta$ RT- CV[min], $\Delta$ 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) 244436	(9.90, N/A) (N/A, 0.00, N/A)	623.8	N/A	1.0680 [ 1.0000 ]	106.8% { 100.0% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 148824	(10.13, N/A) (N/A, 0.00, N/A)	364.1	N/A	1.0356 [ 1.0000 ]	103.6% { 100.0% }			
13C3_PFBs_EIS	(302.0 / 80.0) 771923	(6.20, N/A) (N/A, 0.00, N/A)	601.6	N/A	2.0007 [ 2.0000 ]	100.0% { 100.0% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 448007	(8.10, N/A) (N/A, 0.00, N/A)	532.3	N/A	2.0633 [ 2.0000 ]	103.2% { 100.0% }			
13C8_PFOS_EIS	(507.0 / 80.0) 639399	(9.51, N/A) (N/A, 0.00, N/A)	339.4	N/A	1.8623 [ 2.0000 ]	93.1% { 100.0% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 93371	(5.90, N/A) (N/A, 0.00, N/A)	458.5	N/A	4.1407 [ 4.0000 ]	103.5% { 100.0% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 111272	(7.62, N/A) (N/A, 0.00, N/A)	603.4	N/A	4.0358 [ 4.0000 ]	100.9% { 100.0% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 110658	(9.03, N/A) (N/A, 0.00, N/A)	462.6	N/A	4.0228 [ 4.0000 ]	100.6% { 100.0% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 1035004	(10.17, N/A) (N/A, 0.00, N/A)	660.5	N/A	1.9929 [ 2.0000 ]	99.6% { 100.0% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 233974	(10.60, N/A) (N/A, 0.00, N/A)	965.9	N/A	1.7551 [ 2.0000 ]	87.8% { 100.0% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 214512	(10.68, N/A) (N/A, 0.00, N/A)	1046.8	N/A	1.8547 [ 2.0000 ]	92.7% { 100.0% }			

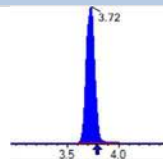
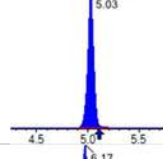
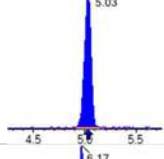
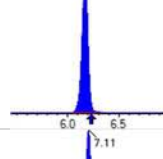
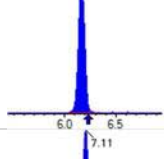
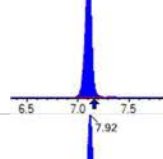
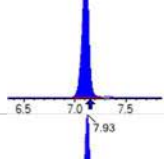
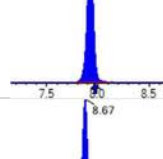
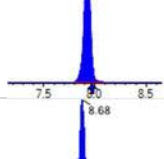
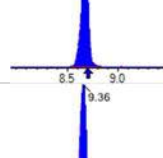
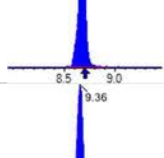
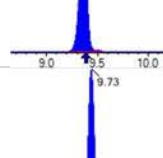
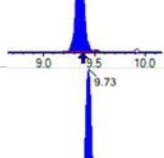
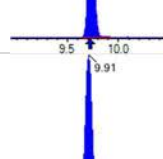
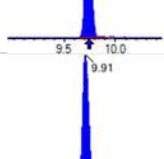
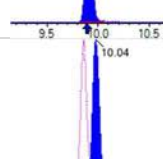
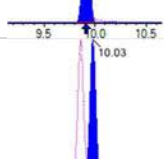
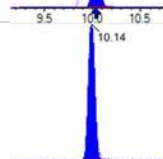
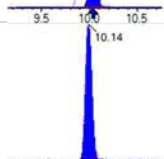

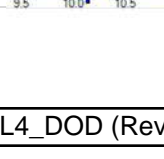


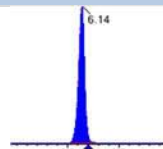
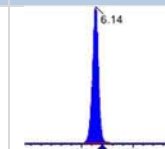
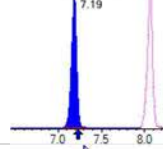
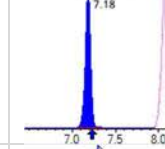
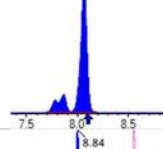
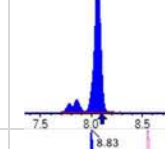
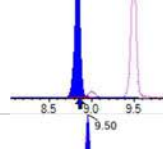
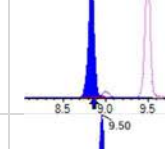
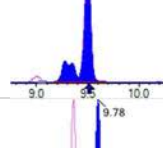
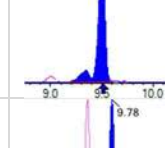
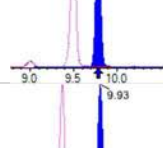
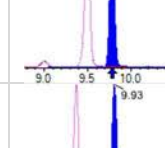
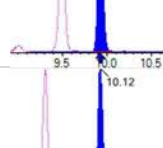
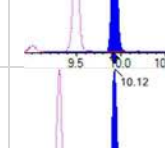
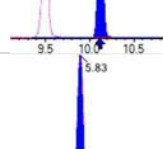
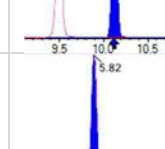
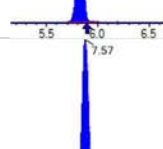
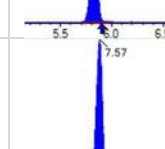
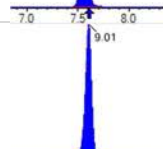
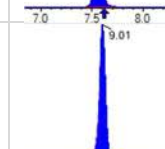


Chemist: DAG  
 Instrument: Saphira  
 Type: Sciex Q3 5500

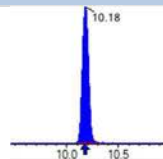
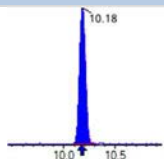
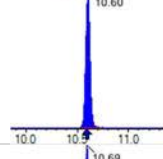
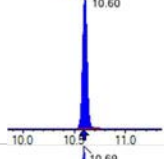
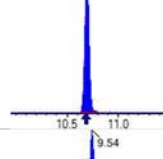
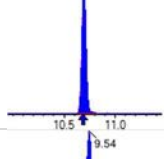
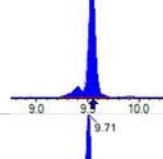
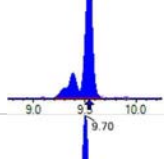
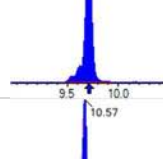
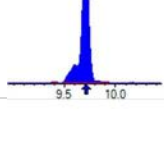
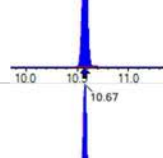
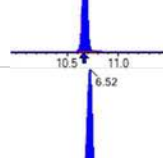
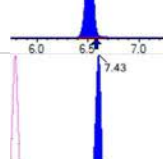
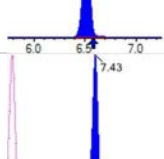
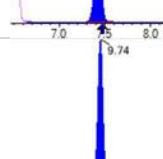
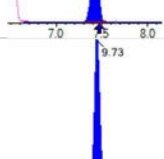
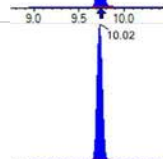
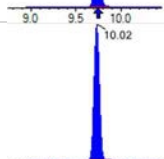

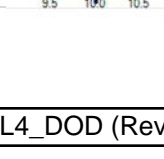
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 Acquisition Method: 1633 2022-12-13.dam

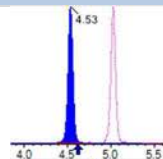
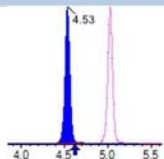
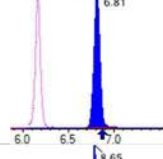
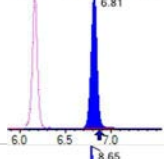
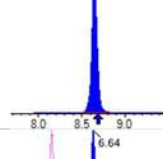
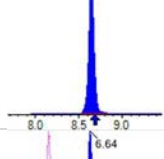
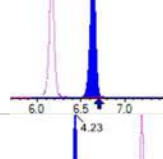
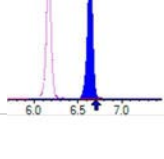
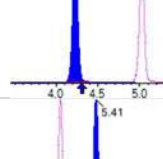
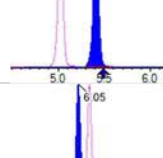
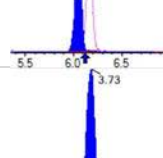
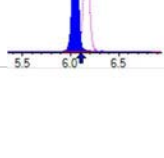
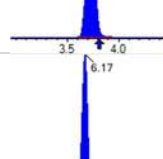
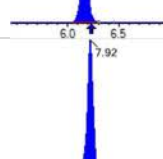
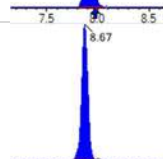

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 Acquired: 2022/12/13 - 20:54

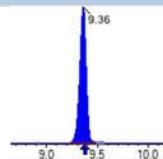
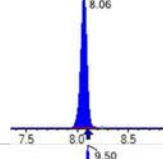
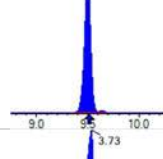
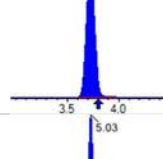
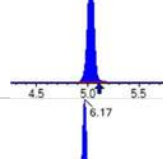
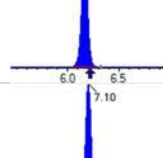
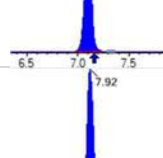
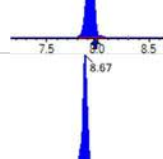
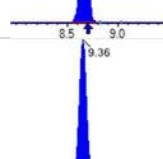
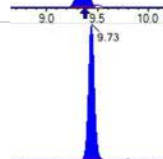

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	( 573.0 / 419.0 ) 316119	( 9.54 , N/A ) ( N/A , 0.00 , N/A )	357.6	N/A	3.8900 [ 4.0000 ]	97.2% { 100.0% }			
D5_EtFOSAA_EIS	( 589.0 / 419.0 ) 296285	( 9.71 , N/A ) ( N/A , 0.00 , N/A )	472.0	N/A	4.0293 [ 4.0000 ]	100.7% { 100.0% }			
D7_NMeFOSE_EIS	( 623.2 / 58.9 ) 453746	( 10.56 , N/A ) ( N/A , 0.00 , N/A )	1063.2	N/A	17.7545 [ 20.0000 ]	88.8% { 100.0% }			
D9_NEtFOSE_EIS	( 639.2 / 58.9 ) 239914	( 10.65 , N/A ) ( N/A , 0.00 , N/A )	1165.4	N/A	18.7347 [ 20.0000 ]	93.7% { 100.0% }			
13C3_HFPODA_EIS	( 287.0 / 169.0 ) 749093	( 6.58 , N/A ) ( N/A , 0.00 , N/A )	929.1	N/A	7.4133 [ 8.0000 ]	92.7% { 100.0% }			

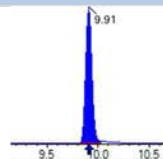
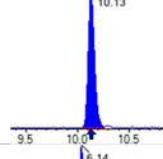
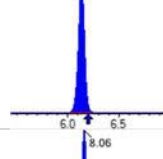
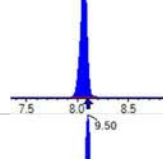
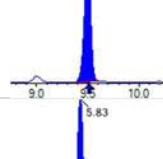
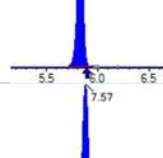
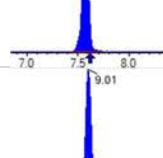
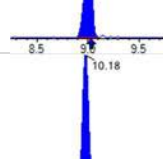
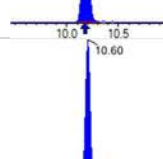
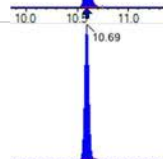

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 2337677	(3.72, 1.00) (0.00, N/A, 0.0)	55.7	N/A 0.0 0.0	40.9154 [ 40.0000 ]	102.3%			
PFPeA	(262.9 / 219.0) 1668692 (262.9 / 69.0) 19523	(5.03, 1.00) (0.00, N/A, -0.1)	669.4 371.1	0.0117 93.2 93.2	19.3173 [ 20.0000 ]	96.6%			
PFHxA	(313.0 / 269.0) 1188875 (313.0 / 119.0) 124144	(6.17, 1.00) (0.00, N/A, 0.3)	773.0 531.6	0.1044 112.8 112.8	8.8842 [ 10.0000 ]	88.8%			
PFHpA	(363.0 / 319.0) 1160429 (363.0 / 169.0) 345118	(7.11, 1.00) (0.00, N/A, -0.1)	752.3 516.0	0.2974 95.6 95.6	10.1137 [ 10.0000 ]	101.1%			
PFOA	(413.0 / 369.0) 1210538 (413.0 / 169.0) 370946	(7.92, 1.00) (0.00, N/A, -0.1)	807.1 677.3	0.3064 91.3 91.3	9.2348 [ 10.0000 ]	92.3%			
PFNA	(463.0 / 419.0) 857915 (463.0 / 169.0) 186842	(8.67, 1.00) (0.00, N/A, -0.1)	579.6 98.3	0.2178 124.1 124.1	8.8482 [ 10.0000 ]	88.5%			
PFDA	(513.0 / 469.0) 1229650 (513.0 / 169.0) 124733	(9.36, 1.00) (0.00, N/A, 0.1)	627.2 241.2	0.1014 100.8 100.8	8.9189 [ 10.0000 ]	89.2%			
PFUnA	(563.0 / 519.0) 1410409 (563.0 / 169.0) 132017	(9.73, 1.00) (0.00, N/A, -0.1)	973.1 349.9	0.0936 102.3 102.3	10.2072 [ 10.0000 ]	102.1%			
PFDoA	(613.0 / 569.0) 1764232 (613.0 / 169.0) 225054	(9.91, 1.00) (0.00, N/A, 0.0)	604.6 572.6	0.1276 99.5 99.5	10.2356 [ 10.0000 ]	102.4%			
PFTrDA	(663.0 / 619.0) 1531523 (663.0 / 169.0) 330928	(10.04, 1.01) (N/A, 0.01, 0.1)	787.5 531.0	0.2161 98.4 98.4	10.7776 [ 10.0000 ]	107.8%			
PFTeDA	(713.0 / 669.0) 1178307 (713.0 / 169.0) 243064	(10.14, 1.00) (0.00, N/A, -0.1)	590.0 559.6	0.2063 110.9 110.9	10.4557 [ 10.0000 ]	104.6%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(298.9 / 80.0) 1675540 (298.9 / 99.0) 1260061	(6.14, 1.00) (0.00, N/A, 0.1)	947.8 979.8	0.7520 104.4 104.4	8.4994 [ 8.8473 ]	96.1%			
PFPeS	(349.0 / 80.0) 3144087 (349.0 / 99.0) 1141879	(7.19, 0.89) (N/A, -0.05, 0.1)	834.8 632.0	0.3632 97.0 97.0	8.3386 [ 9.3838 ]	88.9%			
PFHxS	(399.0 / 80.0) 2810264 (399.0 / 99.0) 928918	(8.06, 1.00) (0.00, N/A, 0.1)	3050.5 5508.4	0.3305 102.5 102.5	8.1653 [ 9.1098 ]	89.6%			
PFHpS	(449.0 / 80.0) 2456086 (449.0 / 99.0) 659707	(8.84, 0.93) (N/A, -0.03, 0.1)	558.6 411.7	0.2686 87.5 87.5	9.4958 [ 9.5141 ]	99.8%			
PFOS	(499.0 / 80.0) 3066551 (499.0 / 99.0) 616306	(9.50, 1.00) (0.00, N/A, -0.1)	148.9 177.2	0.2010 87.6 87.6	9.7559 [ 9.2749 ]	105.2%			
PFNS	(549.0 / 80.0) 3441021 (549.0 / 99.0) 957772	(9.78, 1.03) (N/A, 0.00, 0.1)	1114.9 839.0	0.2783 107.3 107.3	8.8850 [ 9.5989 ]	92.6%			
PFDS	(599.0 / 80.0) 4633325 (599.0 / 99.0) 1017900	(9.93, 1.05) (N/A, 0.01, -0.1)	1484.5 977.3	0.2197 97.6 97.6	9.1003 [ 9.6311 ]	94.5%			
PFDoS	(698.9 / 80.0) 2400355 (698.9 / 99.0) 577282	(10.12, 1.07) (N/A, 0.00, -0.1)	1207.9 1221.4	0.2405 118.8 118.8	9.3197 [ 9.6956 ]	96.1%			
4:2FTS	(327.0 / 307.0) 2387923 (327.0 / 81.0) 1413546	(5.83, 1.00) (0.00, N/A, 0.2)	862.8 721.8	0.5920 97.5 97.5	37.1103 [ 37.3811 ]	99.3%			
6:2FTS	(427.0 / 407.0) 1471616 (427.0 / 81.0) 1031892	(7.57, 1.00) (0.00, N/A, -0.1)	1087.7 1212.1	0.7012 107.9 107.9	34.1066 [ 37.9617 ]	89.8%			
8:2FTS	(527.0 / 507.0) 1384250 (527.0 / 81.0) 896542	(9.01, 1.00) (0.00, N/A, 0.0)	698.8 812.0	0.6477 103.3 103.3	40.4838 [ 38.3315 ]	105.6%			

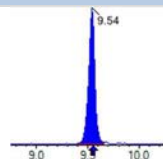
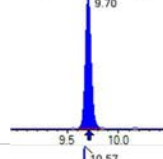
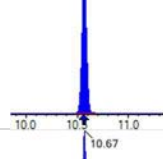
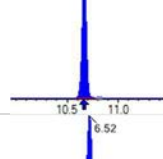
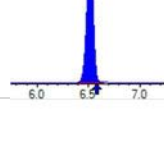
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 404569 (498.0 / 478.0) 105573	(10.18, 1.00) (0.00, N/A, 0.0)	1114.7 407.5	0.0261 114.6 114.6	9.7275 [ 10.0000 ]	97.3%			
NMeFOSA	(511.9 / 219.0) 3917623 (511.9 / 169.0) 2563217	(10.60, 1.00) (0.00, N/A, 0.0)	1227.7 1882.0	0.6543 102.5 102.5	40.8457 [ 40.0000 ]	102.1%			
NEIFOSA	(526.0 / 219.0) 3435791 (526.0 / 169.0) 3555832	(10.69, 1.00) (0.00, N/A, 0.0)	1369.6 1351.9	1.0349 96.9 96.9	37.8293 [ 40.0000 ]	94.6%			
NMeFOSAA	(570.0 / 419.0) 545721 (570.0 / 483.0) 279754	(9.54, 1.00) (0.00, N/A, 0.0)	673.7 505.5	0.5126 89.3 89.3	10.8406 [ 10.0000 ]	108.4%			
NEIFOSAA	(584.0 / 419.0) 516508 (584.0 / 526.0) 331380	(9.71, 1.00) (0.00, N/A, 0.1)	1107.1 1922.9	0.6416 113.2 113.2	8.7043 [ 10.0000 ]	87.0%			
NMeFOSE	(616.1 / 59.0) 1069812	(10.57, 1.00) (0.01, N/A, 0.0)	883.3	N/A 0.0 0.0	37.9073 [ 40.0000 ]	94.8%			
NEtFOSE	(630.0 / 59.0) 245532	(10.67, 1.00) (0.01, N/A, 0.0)	922.8	N/A 0.0 0.0	40.5982 [ 40.0000 ]	101.5%			
HFPO-DA	(285.0 / 169.0) 1075122 (285.0 / 185.0) 3138717	(6.52, 1.00) (0.00, N/A, 0.2)	762.0 947.8	2.9194 111.0 111.0	18.9601 [ 20.0000 ]	94.8%			
ADONA	(377.0 / 85.0) 4306774 (377.0 / 251.0) 525258	(7.43, 1.14) (N/A, -0.04, 0.1)	742.3 796.9	0.1220 103.4 103.4	17.8103 [ 18.8540 ]	94.5%			
9CI-Pf3ONS	(531.0 / 351.0) 12260687 (533.0 / 353.0) 3846868	(9.74, 1.49) (N/A, 0.00, 0.2)	877.4 665.7	0.3138 108.2 108.2	17.8821 [ 18.6651 ]	95.8%			
11CI-PF3OUDS	(631.0 / 451.0) 8373522 (633.0 / 453.0) 2581634	(10.02, 1.54) (N/A, 0.01, -0.1)	949.2 994.5	0.3083 97.7 97.7	19.0569 [ 18.8642 ]	101.0%			

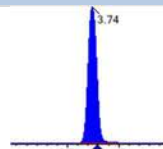
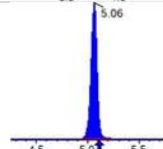
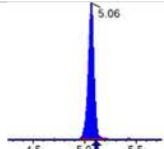
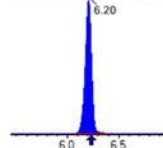
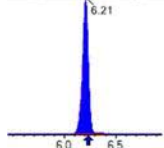
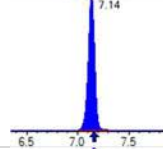
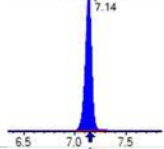
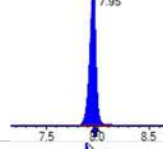
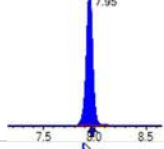
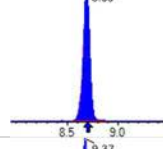
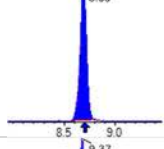
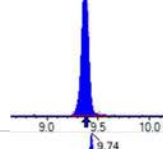
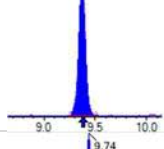
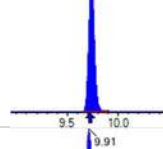
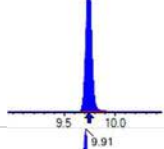
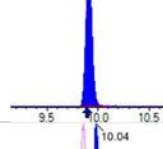
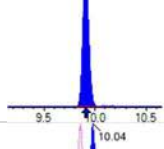
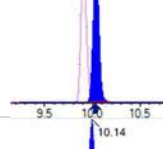
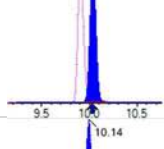
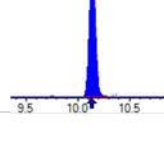
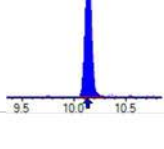
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 135780 (241.0 / 117.0) 239145	(4.53, 0.90) (N/A, -0.08, 0.0)	666.2 675.2	1.7613 107.4 107.4	37.4012 [ 40.0000 ]	93.5%			
5:3FTCA	(341.0 / 236.7) 999247 (341.0 / 217.0) 1603778	(6.81, 1.11) (N/A, -0.06, 0.0)	514.3 752.5	1.6050 101.8 101.8	37.3182 [ 40.0000 ]	93.3%			
7:3FTCA	(441.0 / 317.0) 1252819 (441.0 / 337.0) 1024151	(8.65, 1.40) (N/A, -0.03, 0.0)	643.1 633.8	0.8175 97.6 97.6	37.3949 [ 40.0000 ]	93.5%			
PFEESA	(315.0 / 135.0) 2568418 (315.0 / 83.0) 737772	(6.64, 1.08) (N/A, -0.06, 0.0)	915.5 802.9	0.2872 93.7 93.7	17.6250 [ 17.8492 ]	98.7%			
PFMPA	(229.0 / 85.0) 464712	(4.23, 0.84) (N/A, -0.08, 0.0)	998.3	N/A 0.0 0.0	19.8182 [ 20.0000 ]	99.1%			
PFMBA	(279.0 / 85.0) 1502382	(5.41, 1.08) (N/A, -0.08, 0.0)	947.1	N/A 0.0 0.0	19.1444 [ 20.0000 ]	95.7%			
NFDHA	(201.0 / 85.0) 51832 (295.0 / 201.0) 361133	(6.05, 0.98) (N/A, -0.07, 0.0)	496.7 706.1	6.9673 105.8 105.8	18.9782 [ 20.0000 ]	94.9%			
13C3_PFBA_IIS	(216.0 / 172.0) 115291	(3.73, N/A) (N/A, -0.07, N/A)	724.0	N/A	0.9502 [ 1.0000 ]	95.0% { 91.0% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 176615	(6.17, N/A) (N/A, -0.06, N/A)	716.3	N/A	0.9678 [ 1.0000 ]	96.8% { 90.2% }			
13C4_PFOA_IIS	(417.0 / 372.0) 166035	(7.92, N/A) (N/A, -0.04, N/A)	642.7	N/A	0.9511 [ 1.0000 ]	95.1% { 94.2% }			
13C5_PFNA_IIS	(468.0 / 423.0) 126360	(8.67, N/A) (N/A, -0.03, N/A)	544.8	N/A	0.9299 [ 1.0000 ]	93.0% { 95.8% }			

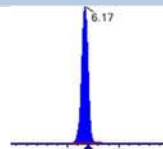
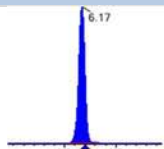
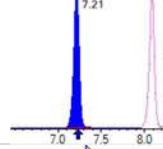
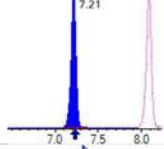
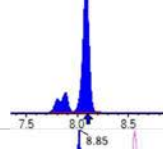
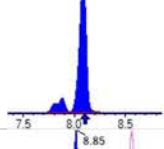
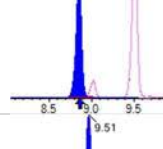
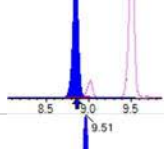
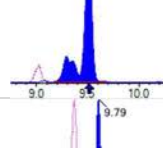
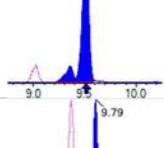
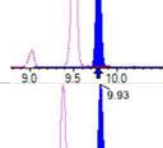
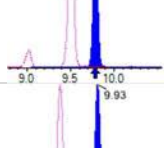
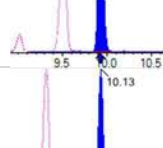
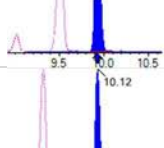
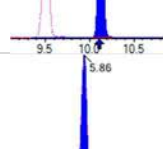
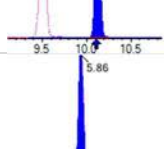
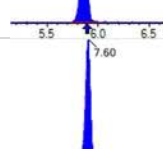
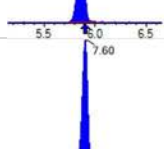
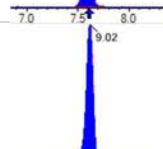
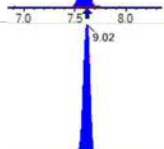

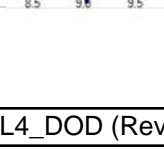
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 134817	(9.36, N/A) (N/A, -0.02, N/A)	423.3	N/A	0.9716 [ 1.0000 ]	97.2% { 95.4% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 343070	(8.06, N/A) (N/A, -0.04, N/A)	728.9	N/A	1.0630 [ 1.0000 ]	106.3% { 102.3% }			
13C4_PFOS_IIS	(502.8 / 79.9) 232276	(9.50, N/A) (N/A, -0.01, N/A)	548.9	N/A	0.9224 [ 1.0000 ]	92.2% { 84.2% }			
13C4_PFBA_EIS	(217.0 / 172.0) 650684	(3.73, N/A) (N/A, -0.07, N/A)	683.7	N/A	7.4041 [ 8.0000 ]	92.6% { 81.8% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 389269	(5.03, N/A) (N/A, -0.08, N/A)	788.5	N/A	3.9800 [ 4.0000 ]	99.5% { 91.3% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 302007	(6.17, N/A) (N/A, -0.06, N/A)	848.2	N/A	2.0290 [ 2.0000 ]	101.5% { 95.4% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 247951	(7.10, N/A) (N/A, -0.05, N/A)	432.7	N/A	1.9190 [ 2.0000 ]	96.0% { 85.9% }			
13C8_PFOA_EIS	(421.0 / 376.0) 262353	(7.92, N/A) (N/A, -0.04, N/A)	580.4	N/A	2.0607 [ 2.0000 ]	103.0% { 96.7% }			
13C9_PFNA_EIS	(472.0 / 427.0) 106355	(8.67, N/A) (N/A, -0.03, N/A)	485.6	N/A	1.0925 [ 1.0000 ]	109.2% { 98.6% }			
13C6_PFDA_EIS	(519.0 / 474.0) 136351	(9.36, N/A) (N/A, -0.02, N/A)	409.5	N/A	1.0545 [ 1.0000 ]	105.5% { 112.1% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 159285	(9.73, N/A) (N/A, 0.00, N/A)	301.9	N/A	0.8970 [ 1.0000 ]	89.7% { 85.7% }			

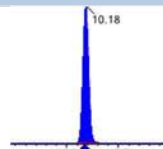
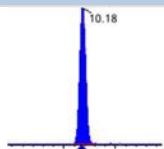
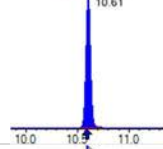
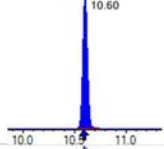
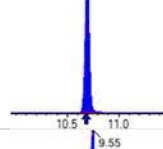
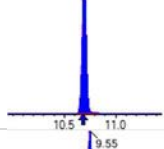
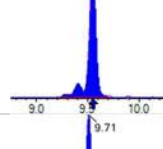
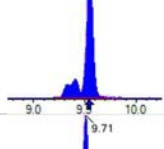
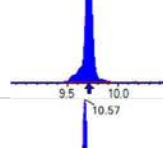
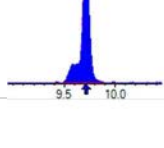
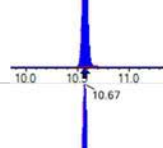
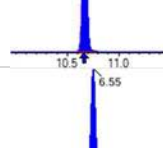
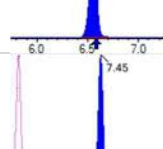
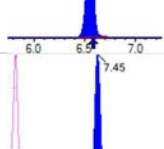
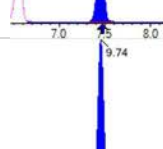
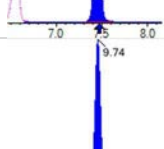
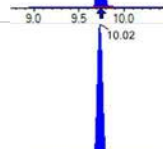
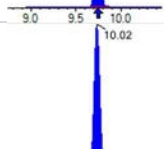

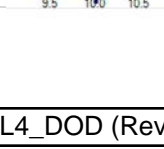
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 199035	(9.91, N/A) (N/A, 0.00, N/A)	291.2	N/A	0.9114 [ 1.0000 ]	91.1% { 81.4% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 123317	(10.13, N/A) (N/A, 0.00, N/A)	330.2	N/A	0.8993 [ 1.0000 ]	89.9% { 82.9% }			
13C3_PFBs_EIS	(302.0 / 80.0) 697796	(6.14, N/A) (N/A, -0.07, N/A)	951.6	N/A	1.7677 [ 2.0000 ]	88.4% { 90.4% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 428584	(8.06, N/A) (N/A, -0.04, N/A)	994.4	N/A	1.9293 [ 2.0000 ]	96.5% { 95.7% }			
13C8_PFOS_EIS	(507.0 / 80.0) 571705	(9.50, N/A) (N/A, -0.01, N/A)	260.8	N/A	1.9769 [ 2.0000 ]	98.8% { 89.4% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 78936	(5.83, N/A) (N/A, -0.07, N/A)	478.1	N/A	3.4214 [ 4.0000 ]	85.5% { 84.5% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 105887	(7.57, N/A) (N/A, -0.05, N/A)	691.7	N/A	3.7537 [ 4.0000 ]	93.8% { 95.2% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 96036	(9.01, N/A) (N/A, -0.02, N/A)	421.4	N/A	3.4124 [ 4.0000 ]	85.3% { 86.8% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 847968	(10.18, N/A) (N/A, 0.01, N/A)	719.4	N/A	1.9385 [ 2.0000 ]	96.9% { 81.9% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 230574	(10.60, N/A) (N/A, 0.01, N/A)	1171.6	N/A	2.0534 [ 2.0000 ]	102.7% { 98.5% }			
D5_NeIFOSA_EIS	(531.1 / 169.0) 196509	(10.69, N/A) (N/A, 0.01, N/A)	1161.0	N/A	2.0171 [ 2.0000 ]	100.9% { 91.6% }			

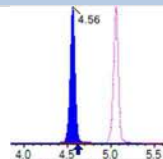
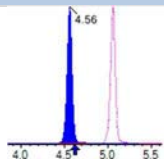
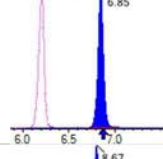
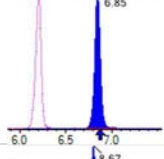
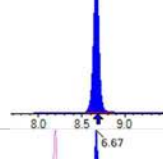
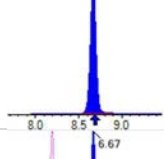
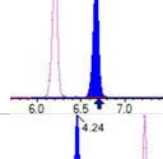
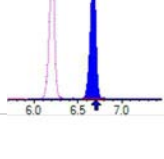
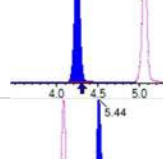
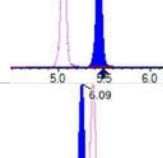
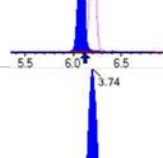
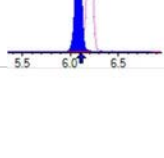
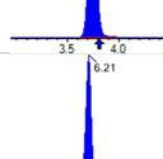
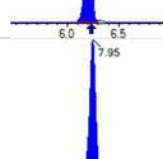
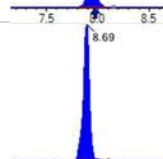



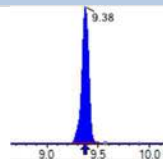
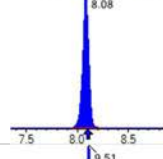
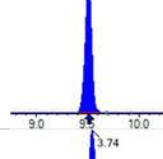
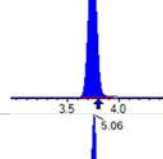
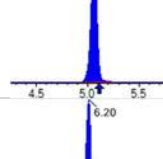
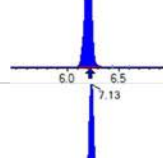
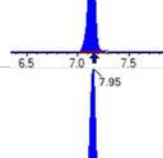
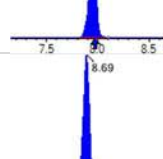
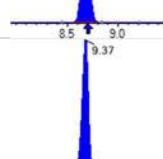
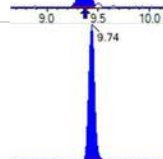

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	( 573.0 / 419.0 ) 260484	( 9.54, N/A ) ( N/A, -0.01, N/A )	386.9	N/A	3.8055 [ 4.0000 ]	95.1% { 82.4% }			
D5_EtFOSAA_EIS	( 589.0 / 419.0 ) 272663	( 9.70, N/A ) ( N/A, 0.00, N/A )	417.6	N/A	4.4023 [ 4.0000 ]	110.1% { 92.0% }			
D7_NMeFOSE_EIS	( 623.2 / 58.9 ) 418364	( 10.57, N/A ) ( N/A, 0.01, N/A )	1173.5	N/A	19.4348 [ 20.0000 ]	97.2% { 92.2% }			
D9_NEtFOSE_EIS	( 639.2 / 58.9 ) 178785	( 10.67, N/A ) ( N/A, 0.01, N/A )	1185.1	N/A	16.5750 [ 20.0000 ]	82.9% { 74.5% }			
13C3_HFPODA_EIS	( 287.0 / 169.0 ) 733546	( 6.52, N/A ) ( N/A, -0.06, N/A )	866.9	N/A	8.0456 [ 8.0000 ]	100.6% { 97.9% }			

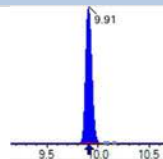
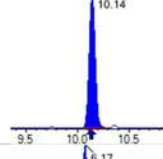
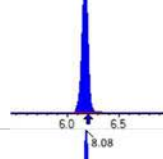
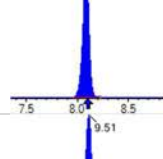
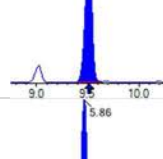
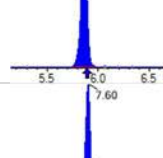
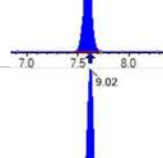
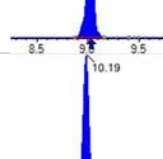
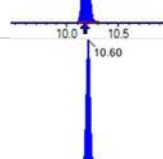
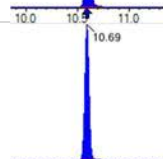

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 4688692	(3.74, 1.00) (0.00, N/A, 0.0)	67.7	N/A 0.0 0.0	77.9723 [ 80.0000 ]	97.5%			
PFPeA	(262.9 / 219.0) 3330388 (262.9 / 69.0) 38980	(5.06, 1.00) (0.00, N/A, -0.1)	804.8 523.8	0.0117 93.2 93.2	39.5875 [ 40.0000 ]	99.0%			
PFHxA	(313.0 / 269.0) 2377175 (313.0 / 119.0) 241227	(6.20, 1.00) (0.00, N/A, 0.0)	790.4 570.9	0.1015 109.6 109.6	19.0281 [ 20.0000 ]	95.1%			
PFHpA	(363.0 / 319.0) 2357674 (363.0 / 169.0) 748333	(7.14, 1.00) (0.00, N/A, -0.1)	675.2 652.6	0.3174 102.0 102.0	17.7184 [ 20.0000 ]	88.6%			
PFOA	(413.0 / 369.0) 2459526 (413.0 / 169.0) 826096	(7.95, 1.00) (0.00, N/A, 0.3)	628.7 788.4	0.3359 100.1 100.1	18.2471 [ 20.0000 ]	91.2%			
PFNA	(463.0 / 419.0) 1926887 (463.0 / 169.0) 412565	(8.69, 1.00) (0.00, N/A, 0.1)	634.4 132.5	0.2141 122.0 122.0	19.1543 [ 20.0000 ]	95.8%			
PFDA	(513.0 / 469.0) 2498676 (513.0 / 169.0) 235821	(9.37, 1.00) (0.00, N/A, 0.0)	446.1 344.2	0.0944 93.8 93.8	18.9370 [ 20.0000 ]	94.7%			
PFUnA	(563.0 / 519.0) 2929676 (563.0 / 169.0) 287215	(9.74, 1.00) (0.00, N/A, -0.2)	681.9 610.3	0.0980 107.1 107.1	18.9269 [ 20.0000 ]	94.6%			
PFDoA	(613.0 / 569.0) 3453314 (613.0 / 169.0) 494929	(9.91, 1.00) (0.00, N/A, 0.2)	849.9 599.3	0.1433 111.8 111.8	15.4888 [ 20.0000 ]	77.4%			
PFTTrDA	(663.0 / 619.0) 2925245 (663.0 / 169.0) 645894	(10.04, 1.01) (N/A, 0.01, 0.1)	743.2 712.8	0.2208 100.5 100.5	15.9142 [ 20.0000 ]	79.6%			
PFTeDA	(713.0 / 669.0) 2499545 (713.0 / 169.0) 456882	(10.14, 1.00) (0.00, N/A, 0.0)	951.8 574.6	0.1828 98.2 98.2	19.9843 [ 20.0000 ]	99.9%			

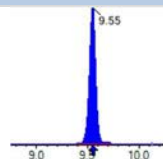
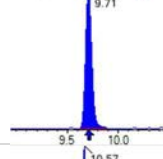
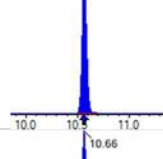
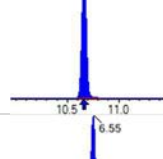
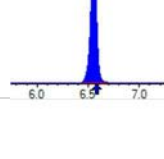
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 3757655 (298.9 / 99.0) 2441386	(6.17, 1.00) (0.00, N/A, 0.0)	602.3 832.3	0.6497 90.2 90.2	17.7624 [ 17.6947 ]	100.4%			
PFPeS	(349.0 / 80.0) 6568422 (349.0 / 99.0) 2617264	(7.21, 0.89) (N/A, -0.02, 0.0)	818.7 825.9	0.3985 106.4 106.4	17.9340 [ 18.7676 ]	95.6%			
PFHxS	(399.0 / 80.0) 5911094 (399.0 / 99.0) 1946919	(8.08, 1.00) (0.00, N/A, 0.0)	3565.9 3747.2	0.3294 102.1 102.1	17.6811 [ 18.2197 ]	97.0%			
PFHpS	(449.0 / 80.0) 5159277 (449.0 / 99.0) 1482433	(8.85, 0.93) (N/A, -0.01, 0.2)	592.5 492.7	0.2873 93.6 93.6	19.3240 [ 19.0281 ]	101.6%			
PFOS	(499.0 / 80.0) 5931805 (499.0 / 99.0) 1295228	(9.51, 1.00) (0.00, N/A, 0.0)	163.6 212.8	0.2184 95.1 95.1	18.2821 [ 18.5499 ]	98.6%			
PFNS	(549.0 / 80.0) 7772658 (549.0 / 99.0) 1843168	(9.79, 1.03) (N/A, 0.01, -0.1)	808.0 907.0	0.2371 91.5 91.5	19.4428 [ 19.1977 ]	101.3%			
PFDS	(599.0 / 80.0) 10158197 (599.0 / 99.0) 2355451	(9.93, 1.04) (N/A, 0.01, 0.0)	1102.2 819.7	0.2319 103.0 103.0	19.3285 [ 19.2621 ]	100.3%			
PFDoS	(698.9 / 80.0) 5031216 (698.9 / 99.0) 1167238	(10.13, 1.06) (N/A, 0.01, 0.2)	1431.9 1021.9	0.2320 114.6 114.6	18.9243 [ 19.3913 ]	97.6%			
4:2FTS	(327.0 / 307.0) 4897098 (327.0 / 81.0) 2772558	(5.86, 1.00) (0.00, N/A, 0.2)	829.2 946.7	0.5662 93.3 93.3	70.2511 [ 74.7622 ]	94.0%			
6:2FTS	(427.0 / 407.0) 2972329 (427.0 / 81.0) 2115496	(7.60, 1.00) (0.00, N/A, 0.0)	856.3 760.9	0.7117 109.5 109.5	68.4540 [ 75.9234 ]	90.2%			
8:2FTS	(527.0 / 507.0) 2782909 (527.0 / 81.0) 1808883	(9.02, 1.00) (-0.01, N/A, 0.0)	461.3 671.7	0.6500 103.7 103.7	65.4599 [ 76.6631 ]	85.4%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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) 9069182 (498.0 / 478.0) 207569	(10.18, 1.00) (0.00, N/A, 0.0)	1135.9 345.4	0.0229 100.5 100.5	20.3605 [ 20.0000 ]	101.8%			
NMeFOSA	(511.9 / 219.0) 7740990 (511.9 / 169.0) 4998695	(10.61, 1.00) (0.00, N/A, 0.1)	1679.8 1340.5	0.6457 101.2 101.2	73.3469 [ 80.0000 ]	91.7%			
NEIFOSA	(526.0 / 219.0) 7877111 (526.0 / 169.0) 8539100	(10.70, 1.00) (0.00, N/A, 0.0)	1376.3 1523.9	1.0840 101.5 101.5	76.2663 [ 80.0000 ]	95.3%			
NMeFOSAA	(570.0 / 419.0) 1042920 (570.0 / 483.0) 540188	(9.55, 1.00) (0.00, N/A, -0.1)	585.0 419.3	0.5180 90.2 90.2	17.4314 [ 20.0000 ]	87.2%			
NEIFOSAA	(584.0 / 419.0) 1088468 (584.0 / 526.0) 663346	(9.71, 1.00) (0.00, N/A, -0.1)	848.7 1105.0	0.6094 107.5 107.5	18.9644 [ 20.0000 ]	94.8%			
NMeFOSE	(616.1 / 59.0) 2335585	(10.57, 1.00) (0.01, N/A, 0.0)	1246.3	N/A 0.0 0.0	71.7068 [ 80.0000 ]	89.6%			
NEtFOSE	(630.0 / 59.0) 578959	(10.67, 1.00) (0.01, N/A, 0.0)	1413.1	N/A 0.0 0.0	72.9246 [ 80.0000 ]	91.2%			
HFPO-DA	(285.0 / 169.0) 2133847 (285.0 / 185.0) 6265840	(6.55, 1.00) (0.00, N/A, 0.1)	927.0 919.7	2.9364 111.6 111.6	35.0205 [ 40.0000 ]	87.6%			
ADONA	(377.0 / 85.0) 8536816 (377.0 / 251.0) 1082323	(7.45, 1.14) (N/A, -0.02, 0.1)	1013.5 795.1	0.1268 107.5 107.5	32.8542 [ 37.7080 ]	87.1%			
9CI-Pf3ONS	(531.0 / 351.0) 22576070 (533.0 / 353.0) 7647544	(9.74, 1.49) (N/A, 0.01, 0.0)	783.3 820.4	0.3387 116.8 116.8	30.6427 [ 37.3302 ]	82.1%			
11CI-PF3OUDS	(631.0 / 451.0) 16063589 (633.0 / 453.0) 5234603	(10.02, 1.53) (N/A, 0.01, -0.1)	1165.9 983.2	0.3259 103.3 103.3	34.0222 [ 37.7283 ]	90.2%			

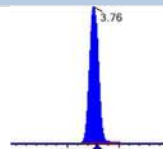
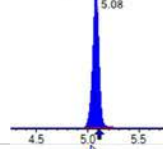
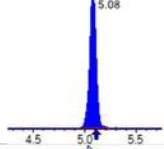
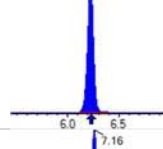
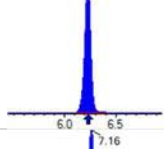
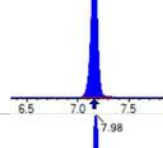
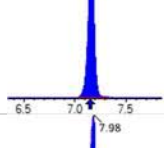
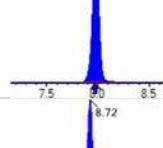
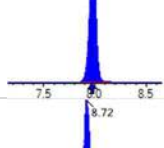
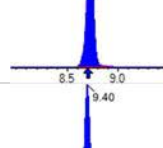
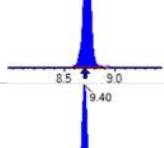
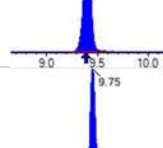
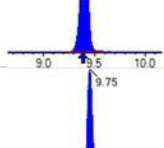
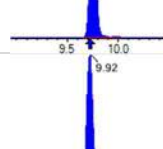
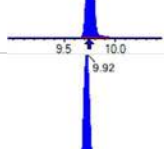
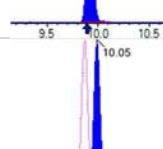
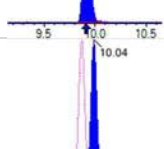
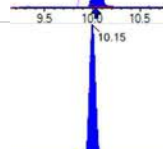
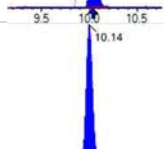

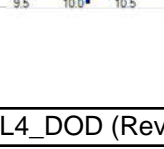
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 283938 (241.0 / 117.0) 495694	(4.56, 0.90) (N/A, -0.06, 0.0)	665.5 702.3	1.7458 106.5 106.5	80.3094 [ 80.0000 ]	100.4%			
5:3FTCA	(341.0 / 236.7) 1975368 (341.0 / 217.0) 3470127	(6.85, 1.10) (N/A, -0.02, 0.1)	677.0 551.1	1.7567 111.5 111.5	79.0218 [ 80.0000 ]	98.8%			
7:3FTCA	(441.0 / 317.0) 2568686 (441.0 / 337.0) 2111982	(8.67, 1.40) (N/A, -0.01, 0.1)	566.7 681.6	0.8222 98.1 98.1	82.1271 [ 80.0000 ]	102.7%			
PFEESA	(315.0 / 135.0) 4823528 (315.0 / 83.0) 1507646	(6.67, 1.08) (N/A, -0.03, 0.0)	1007.0 779.3	0.3126 101.9 101.9	35.4552 [ 35.6984 ]	99.3%			
PFMPA	(229.0 / 85.0) 871640	(4.24, 0.84) (N/A, -0.06, 0.0)	1146.3	N/A 0.0 0.0	38.1689 [ 40.0000 ]	95.4%			
PFMBA	(279.0 / 85.0) 3074062	(5.44, 1.08) (N/A, -0.05, 0.0)	1031.4	N/A 0.0 0.0	40.2223 [ 40.0000 ]	100.6%			
NFDHA	(201.0 / 85.0) 114145 (295.0 / 201.0) 780887	(6.09, 0.98) (N/A, -0.03, 0.1)	567.7 566.6	6.8412 103.9 103.9	44.9359 [ 40.0000 ]	112.3%			
13C3_PFBA_IIS	(216.0 / 172.0) 114493	(3.74, N/A) (N/A, -0.06, N/A)	635.4	N/A	0.9436 [ 1.0000 ]	94.4% { 90.4% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 187062	(6.21, N/A) (N/A, -0.03, N/A)	592.0	N/A	1.0251 [ 1.0000 ]	102.5% { 95.6% }			
13C4_PFOA_IIS	(417.0 / 372.0) 186291	(7.95, N/A) (N/A, -0.01, N/A)	605.0	N/A	1.0672 [ 1.0000 ]	106.7% { 105.7% }			
13C5_PFNxA_IIS	(468.0 / 423.0) 135981	(8.69, N/A) (N/A, -0.01, N/A)	247.7	N/A	1.0007 [ 1.0000 ]	100.1% { 103.1% }			

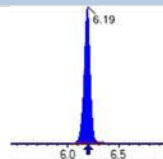
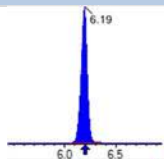
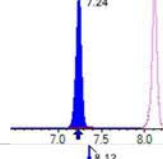
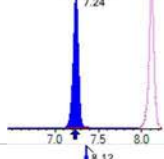
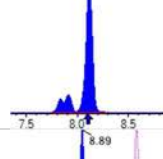
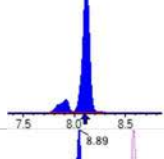
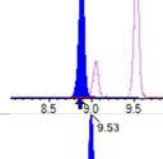
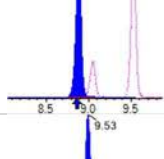
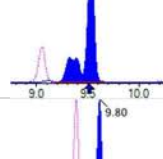
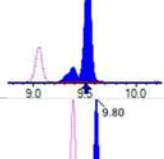
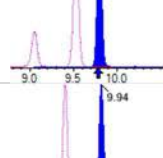
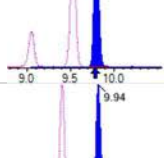
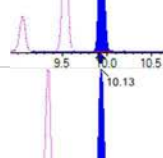
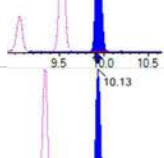
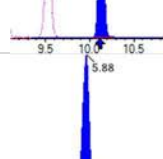
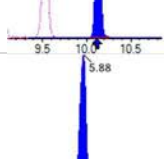
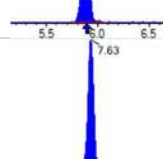
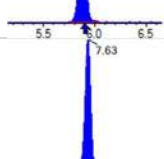
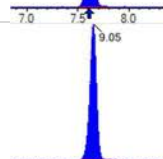
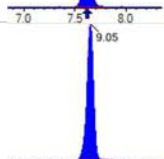

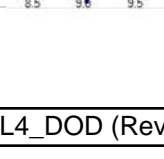
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 147905	(9.38, N/A) (N/A, 0.00, N/A)	431.1	N/A	1.0659 [ 1.0000 ]	106.6% { 104.7% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 311645	(8.08, N/A) (N/A, -0.02, N/A)	686.7	N/A	0.9656 [ 1.0000 ]	96.6% { 92.9% }			
13C4_PFOS_IIS	(502.8 / 79.9) 252700	(9.51, N/A) (N/A, 0.00, N/A)	337.3	N/A	1.0035 [ 1.0000 ]	100.3% { 91.6% }			
13C4_PFBA_EIS	(217.0 / 172.0) 684831	(3.74, N/A) (N/A, -0.06, N/A)	845.1	N/A	7.8470 [ 8.0000 ]	98.1% { 86.1% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 379103	(5.06, N/A) (N/A, -0.05, N/A)	741.2	N/A	3.6596 [ 4.0000 ]	91.5% { 88.9% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 281946	(6.20, N/A) (N/A, -0.02, N/A)	610.9	N/A	1.7885 [ 2.0000 ]	89.4% { 89.0% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 287552	(7.13, N/A) (N/A, -0.02, N/A)	873.7	N/A	2.1012 [ 2.0000 ]	105.1% { 99.6% }			
13C8_PFOA_EIS	(421.0 / 376.0) 269768	(7.95, N/A) (N/A, -0.01, N/A)	663.6	N/A	1.8885 [ 2.0000 ]	94.4% { 99.5% }			
13C9_PFNA_EIS	(472.0 / 427.0) 110346	(8.69, N/A) (N/A, -0.01, N/A)	452.2	N/A	1.0533 [ 1.0000 ]	105.3% { 102.3% }			
13C6_PFDA_EIS	(519.0 / 474.0) 130493	(9.37, N/A) (N/A, 0.00, N/A)	305.9	N/A	0.9199 [ 1.0000 ]	92.0% { 107.2% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 178434	(9.74, N/A) (N/A, 0.01, N/A)	464.0	N/A	0.9159 [ 1.0000 ]	91.6% { 96.1% }			

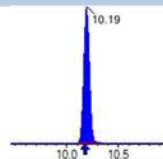
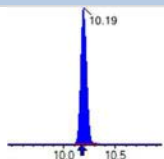
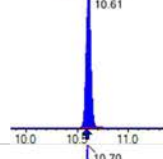
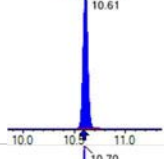
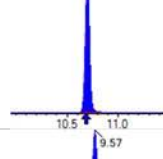
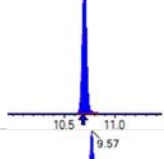
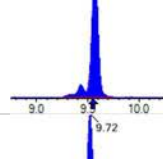
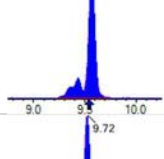
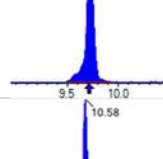
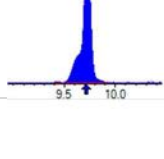
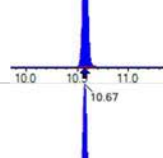
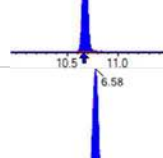
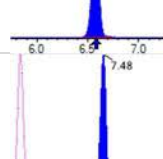
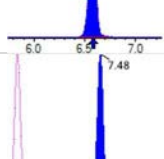
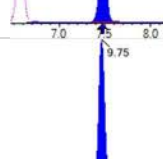
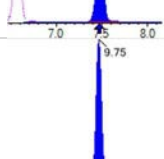
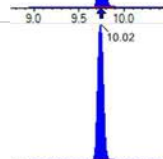
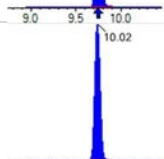

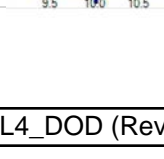
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 257456	(9.91, N/A) (N/A, 0.01, N/A)	391.4	N/A	1.0746 [ 1.0000 ]	107.5% { 105.3% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 136863	(10.14, N/A) (N/A, 0.01, N/A)	378.5	N/A	0.9098 [ 1.0000 ]	91.0% { 92.0% }			
13C3_PFBs_EIS	(302.0 / 80.0) 748814	(6.17, N/A) (N/A, -0.03, N/A)	711.0	N/A	2.0883 [ 2.0000 ]	104.4% { 97.0% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 416312	(8.08, N/A) (N/A, -0.02, N/A)	731.6	N/A	2.0630 [ 2.0000 ]	103.1% { 92.9% }			
13C8_PFOS_EIS	(507.0 / 80.0) 590136	(9.51, N/A) (N/A, 0.00, N/A)	170.7	N/A	1.8757 [ 2.0000 ]	93.8% { 92.3% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 85514	(5.86, N/A) (N/A, -0.03, N/A)	560.8	N/A	4.0803 [ 4.0000 ]	102.0% { 91.6% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 106557	(7.60, N/A) (N/A, -0.02, N/A)	569.5	N/A	4.1584 [ 4.0000 ]	104.0% { 95.8% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 119405	(9.02, N/A) (N/A, 0.00, N/A)	289.6	N/A	4.6705 [ 4.0000 ]	116.8% { 107.9% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 908197	(10.19, N/A) (N/A, 0.01, N/A)	1146.9	N/A	1.9084 [ 2.0000 ]	95.4% { 87.7% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 253716	(10.60, N/A) (N/A, 0.01, N/A)	1340.9	N/A	2.0769 [ 2.0000 ]	103.8% { 108.4% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 223470	(10.69, N/A) (N/A, 0.01, N/A)	1517.1	N/A	2.1085 [ 2.0000 ]	105.4% { 104.2% }			

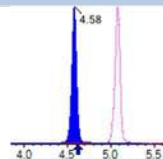
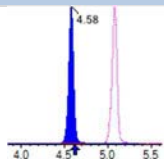
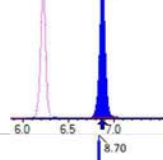
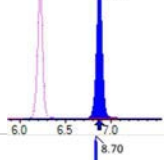
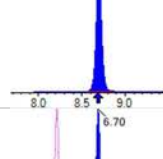
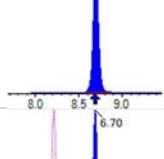
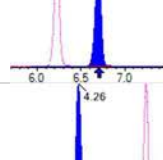
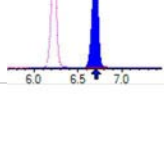
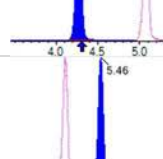
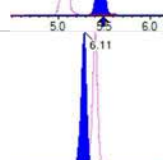
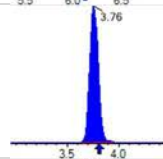

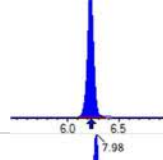
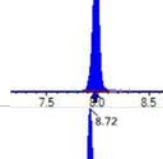
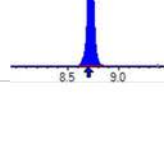
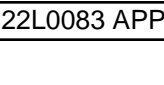
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 309586	(9.55, N/A) (N/A, 0.00, N/A)	419.4	N/A	4.1573 [ 4.0000 ]	103.9% { 97.9% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 263732	(9.71, N/A) (N/A, 0.00, N/A)	317.3	N/A	3.9139 [ 4.0000 ]	97.8% { 89.0% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 482842	(10.57, N/A) (N/A, 0.01, N/A)	1191.7	N/A	20.6172 [ 20.0000 ]	103.1% { 106.4% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 234695	(10.66, N/A) (N/A, 0.01, N/A)	1522.8	N/A	19.9997 [ 20.0000 ]	100.0% { 97.8% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 788228	(6.55, N/A) (N/A, -0.02, N/A)	964.4	N/A	8.1626 [ 8.0000 ]	102.0% { 105.2% }			

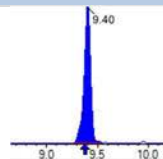
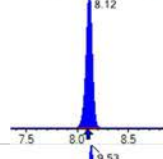
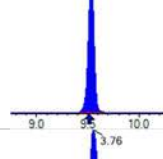
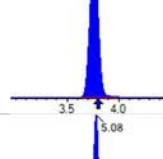
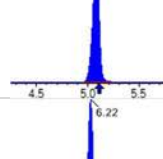
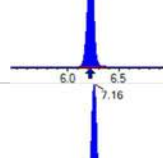
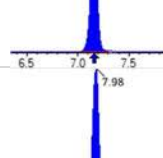
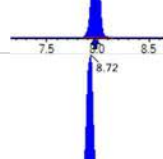
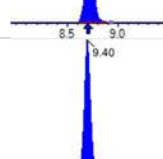
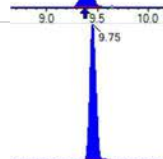



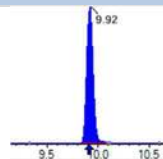
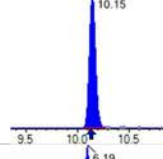
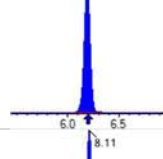
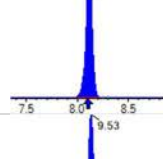
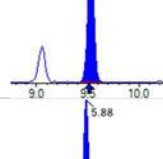
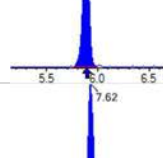
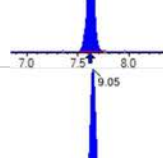
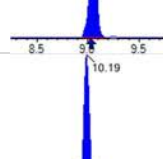
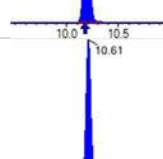
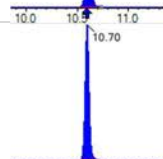

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 11470362	(3.76, 1.00) (0.00, N/A, 0.0)	66.5	N/A 0.0 0.0	202.6105 [ 200.0000 ]	101.3%			
PFPeA	(262.9 / 219.0) 8315567 (262.9 / 69.0) 91389	(5.08, 1.00) (0.00, N/A, 0.0)	723.9 723.5	0.0110 87.5 87.5	98.3425 [ 100.0000 ]	98.3%			
PFHxA	(313.0 / 269.0) 6767310 (313.0 / 119.0) 650518	(6.22, 1.00) (0.00, N/A, -0.1)	715.1 701.7	0.0961 103.8 103.8	47.6913 [ 50.0000 ]	95.4%			
PFHpA	(363.0 / 319.0) 5990106 (363.0 / 169.0) 1833124	(7.16, 1.00) (0.00, N/A, 0.0)	680.0 785.5	0.3060 98.3 98.3	51.2223 [ 50.0000 ]	102.4%			
PFOA	(413.0 / 369.0) 6041032 (413.0 / 169.0) 1990367	(7.98, 1.00) (0.00, N/A, -0.2)	703.7 824.1	0.3295 98.2 98.2	46.9755 [ 50.0000 ]	94.0%			
PFNA	(463.0 / 419.0) 4600977 (463.0 / 169.0) 910948	(8.72, 1.00) (0.00, N/A, 0.1)	760.0 104.5	0.1980 112.8 112.8	54.5440 [ 50.0000 ]	109.1%			
PFDA	(513.0 / 469.0) 6516009 (513.0 / 169.0) 654510	(9.40, 1.00) (0.00, N/A, -0.1)	529.6 381.3	0.1004 99.8 99.8	42.6385 [ 50.0000 ]	85.3%			
PFUnA	(563.0 / 519.0) 5799044 (563.0 / 169.0) 591475	(9.75, 1.00) (0.00, N/A, -0.1)	575.4 543.5	0.1020 111.4 111.4	48.1603 [ 50.0000 ]	96.3%			
PFDoA	(613.0 / 569.0) 8967714 (613.0 / 169.0) 982033	(9.92, 1.00) (0.00, N/A, 0.0)	1540.9 455.5	0.1095 85.4 85.4	51.5513 [ 50.0000 ]	103.1%			
PFTrDA	(663.0 / 619.0) 6376637 (663.0 / 169.0) 1321177	(10.05, 1.01) (N/A, 0.02, 0.0)	1119.7 848.5	0.2072 94.3 94.3	44.4621 [ 50.0000 ]	88.9%			
PFTeDA	(713.0 / 669.0) 5403890 (713.0 / 169.0) 1098990	(10.15, 1.00) (0.00, N/A, 0.1)	758.0 757.7	0.2034 109.3 109.3	46.1686 [ 50.0000 ]	92.3%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(298.9 / 80.0) 8541359 (298.9 / 99.0) 5686555	(6.19, 1.00) (0.00, N/A, 0.0)	934.8 766.6	0.6658 92.4 92.4	39.7256 [ 44.2367 ]	89.8%			
PFPeS	(349.0 / 80.0) 15452970 (349.0 / 99.0) 6191428	(7.24, 0.89) (N/A, 0.00, -0.1)	995.9 852.0	0.4007 107.0 107.0	43.9187 [ 46.9191 ]	93.6%			
PFHxS	(399.0 / 80.0) 13968968 (399.0 / 99.0) 4931016	(8.12, 1.00) (0.00, N/A, 0.0)	3622.1 4468.3	0.3530 109.4 109.4	43.4937 [ 45.5491 ]	95.5%			
PFHpS	(449.0 / 80.0) 13170515 (449.0 / 99.0) 3561220	(8.89, 0.93) (N/A, 0.02, 0.1)	692.2 785.4	0.2704 88.1 88.1	50.5623 [ 47.5703 ]	106.3%			
PFOS	(499.0 / 80.0) 14917353 (499.0 / 99.0) 3248846	(9.53, 1.00) (0.00, N/A, 0.1)	140.8 192.3	0.2178 94.9 94.9	47.1245 [ 46.3746 ]	101.6%			
PFNS	(549.0 / 80.0) 18226440 (549.0 / 99.0) 4379313	(9.80, 1.03) (N/A, 0.02, 0.1)	1740.0 1149.3	0.2403 92.7 92.7	46.7313 [ 47.9943 ]	97.4%			
PFDS	(599.0 / 80.0) 23076288 (599.0 / 99.0) 5772636	(9.94, 1.04) (N/A, 0.02, 0.1)	1279.5 795.7	0.2502 111.1 111.1	45.0053 [ 48.1553 ]	93.5%			
PFDoS	(698.9 / 80.0) 12186331 (698.9 / 99.0) 2982624	(10.13, 1.06) (N/A, 0.01, 0.2)	1053.8 1139.4	0.2448 120.9 120.9	46.9825 [ 48.4781 ]	96.9%			
4:2FTS	(327.0 / 307.0) 11644393 (327.0 / 81.0) 6324342	(5.88, 1.00) (0.00, N/A, -0.1)	786.8 696.4	0.5431 89.5 89.5	180.3049 [ 186.9055 ]	96.5%			
6:2FTS	(427.0 / 407.0) 7746824 (427.0 / 81.0) 5184764	(7.63, 1.00) (0.00, N/A, 0.0)	956.4 944.1	0.6693 103.0 103.0	168.3875 [ 189.8085 ]	88.7%			
8:2FTS	(527.0 / 507.0) 6761796 (527.0 / 81.0) 4489667	(9.05, 1.00) (0.00, N/A, 0.0)	525.4 582.4	0.6640 105.9 105.9	146.8970 [ 191.6577 ]	76.6%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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 ) 22092580 ( 498.0 / 478.0 ) 454296	( 10.19 , 1.00 ) ( 0.00 , N/A , 0.0 )	1270.8 861.7	0.0206 90.3 90.3	48.9364 [ 50.0000 ]	97.9%			
NMeFOSA	( 511.9 / 219.0 ) 16072494 ( 511.9 / 169.0 ) 11262982	( 10.61 , 1.00 ) ( 0.00 , N/A , 0.1 )	1047.8 1240.4	0.7008 109.8 109.8	153.3555 [ 200.0000 ]	76.7%			
NEIFOSA	( 526.0 / 219.0 ) 15694478 ( 526.0 / 169.0 ) 17174561	( 10.70 , 1.00 ) ( 0.00 , N/A , 0.0 )	1348.6 1422.8	1.0943 102.5 102.5	194.2715 [ 200.0000 ]	97.1%			
NMeFOSAA	( 570.0 / 419.0 ) 3005200 ( 570.0 / 483.0 ) 1479949	( 9.57 , 1.00 ) ( 0.00 , N/A , 0.1 )	852.9 828.7	0.4925 85.8 85.8	50.8089 [ 50.0000 ]	101.6%			
NEIFOSAA	( 584.0 / 419.0 ) 2418120 ( 584.0 / 526.0 ) 1556640	( 9.72 , 1.00 ) ( 0.00 , N/A , -0.1 )	1119.8 1415.0	0.6437 113.6 113.6	54.6864 [ 50.0000 ]	109.4%			
NMeFOSE	( 616.1 / 59.0 ) 5492001	( 10.58 , 1.00 ) ( 0.01 , N/A , 0.0 )	1238.2	N/A 0.0 0.0	185.1525 [ 200.0000 ]	92.6%			
NEIFOSE	( 630.0 / 59.0 ) 1261205	( 10.67 , 1.00 ) ( 0.01 , N/A , 0.0 )	1481.8	N/A 0.0 0.0	189.2354 [ 200.0000 ]	94.6%			
HFPO-DA	( 285.0 / 169.0 ) 5516478 ( 285.0 / 185.0 ) 15676308	( 6.58 , 1.00 ) ( 0.00 , N/A , -0.2 )	960.9 806.1	2.8417 108.0 108.0	103.1225 [ 100.0000 ]	103.1%			
ADONA	( 377.0 / 85.0 ) 20477129 ( 377.0 / 251.0 ) 2497987	( 7.48 , 1.14 ) ( N/A , 0.01 , 0.0 )	948.9 878.0	0.1220 103.5 103.5	89.7628 [ 94.2700 ]	95.2%			
9CI-Pf3ONS	( 531.0 / 351.0 ) 47772779 ( 533.0 / 353.0 ) 16446558	( 9.75 , 1.48 ) ( N/A , 0.02 , -0.1 )	678.9 678.9	0.3443 118.7 118.7	73.8570 [ 93.3254 ]	79.1%			
11CI-PF3OUDS	( 631.0 / 451.0 ) 33910798 ( 633.0 / 453.0 ) 12404060	( 10.02 , 1.52 ) ( N/A , 0.01 , 0.0 )	943.3 1236.0	0.3658 116.0 116.0	81.8070 [ 94.3208 ]	86.7%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 761112 (241.0 / 117.0) 1282860	(4.58 , 0.90) (N/A , -0.04 , 0.0)	705.6 770.3	1.6855 102.8 102.8	214.1791 [ 200.0000 ]	107.1%			
5:3FTCA	(341.0 / 236.7) 5575829 (341.0 / 217.0) 9233021	(6.87 , 1.10) (N/A , 0.00 , 0.0)	728.8 822.4	1.6559 105.1 105.1	196.3804 [ 200.0000 ]	98.2%			
7:3FTCA	(441.0 / 317.0) 6780790 (441.0 / 337.0) 5662108	(8.70 , 1.40) (N/A , 0.02 , 0.0)	704.1 693.4	0.8350 99.7 99.7	190.8734 [ 200.0000 ]	95.4%			
PFEESA	(315.0 / 135.0) 11558055 (315.0 / 83.0) 3704955	(6.70 , 1.08) (N/A , 0.00 , 0.0)	1032.2 1133.1	0.3206 104.5 104.5	74.7980 [ 89.2459 ]	83.8%			
PFMPA	(229.0 / 85.0) 2190560	(4.26 , 0.84) (N/A , -0.04 , 0.0)	1016.4	N/A 0.0 0.0	95.4364 [ 100.0000 ]	95.4%			
PFMBA	(279.0 / 85.0) 7139668	(5.46 , 1.08) (N/A , -0.03 , 0.0)	768.5	N/A 0.0 0.0	92.9435 [ 100.0000 ]	92.9%			
NFDHA	(201.0 / 85.0) 277330 (295.0 / 201.0) 1807093	(6.11 , 0.98) (N/A , -0.01 , 0.2)	795.4 744.3	6.5160 98.9 98.9	96.2635 [ 100.0000 ]	96.3%			
13C3_PFBA_IIS	(216.0 / 172.0) 104543	(3.76 , N/A) (N/A , -0.04 , N/A)	645.3	N/A	0.8616 [ 1.0000 ]	86.2% { 82.5% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 181809	(6.22 , N/A) (N/A , -0.01 , N/A)	454.1	N/A	0.9963 [ 1.0000 ]	99.6% { 92.9% }			
13C4_PFOA_IIS	(417.0 / 372.0) 163041	(7.98 , N/A) (N/A , 0.02 , N/A)	640.6	N/A	0.9340 [ 1.0000 ]	93.4% { 92.5% }			
13C5_PFNxA_IIS	(468.0 / 423.0) 139127	(8.72 , N/A) (N/A , 0.02 , N/A)	693.7	N/A	1.0238 [ 1.0000 ]	102.4% { 105.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[min], $\Delta$ RT-CV[min], $\Delta$ 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	(515.1 / 470.1) 128290	(9.40, N/A) (N/A, 0.03, N/A)	340.7	N/A	0.9246 [ 1.0000 ]	92.5% { 90.8% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 321490	(8.12, N/A) (N/A, 0.01, N/A)	974.0	N/A	0.9961 [ 1.0000 ]	99.6% { 95.9% }			
13C4_PFOS_IIS	(502.8 / 79.9) 273939	(9.53, N/A) (N/A, 0.02, N/A)	312.2	N/A	1.0878 [ 1.0000 ]	108.8% { 99.3% }			
13C4_PFBA_EIS	(217.0 / 172.0) 644745	(3.76, N/A) (N/A, -0.04, N/A)	795.5	N/A	8.0907 [ 8.0000 ]	101.1% { 81.1% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 381041	(5.08, N/A) (N/A, -0.03, N/A)	724.3	N/A	3.7846 [ 4.0000 ]	94.6% { 89.4% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 320241	(6.22, N/A) (N/A, 0.00, N/A)	776.8	N/A	2.0901 [ 2.0000 ]	104.5% { 101.1% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 252716	(7.16, N/A) (N/A, 0.00, N/A)	542.6	N/A	1.9000 [ 2.0000 ]	95.0% { 87.6% }			
13C8_PFOA_EIS	(421.0 / 376.0) 257379	(7.98, N/A) (N/A, 0.02, N/A)	708.6	N/A	2.0587 [ 2.0000 ]	102.9% { 94.9% }			
13C9_PFNA_EIS	(472.0 / 427.0) 92528	(8.72, N/A) (N/A, 0.02, N/A)	251.4	N/A	0.8632 [ 1.0000 ]	86.3% { 85.8% }			
13C6_PFDA_EIS	(519.0 / 474.0) 151137	(9.40, N/A) (N/A, 0.03, N/A)	419.3	N/A	1.2284 [ 1.0000 ]	122.8% { 124.2% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 138805	(9.75, N/A) (N/A, 0.02, N/A)	316.1	N/A	0.8214 [ 1.0000 ]	82.1% { 74.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 200876	(9.92, N/A) (N/A, 0.02, N/A)	471.6	N/A	0.9666 [ 1.0000 ]	96.7% { 82.2% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 128078	(10.15, N/A) (N/A, 0.02, N/A)	316.1	N/A	0.9816 [ 1.0000 ]	98.2% { 86.1% }			
13C3_PFBs_EIS	(302.0 / 80.0) 761055	(6.19, N/A) (N/A, -0.01, N/A)	1156.7	N/A	2.0574 [ 2.0000 ]	102.9% { 98.6% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 399943	(8.11, N/A) (N/A, 0.01, N/A)	910.5	N/A	1.9212 [ 2.0000 ]	96.1% { 89.3% }			
13C8_PFOS_EIS	(507.0 / 80.0) 575753	(9.53, N/A) (N/A, 0.02, N/A)	125.7	N/A	1.6881 [ 2.0000 ]	84.4% { 90.0% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 79224	(5.88, N/A) (N/A, -0.01, N/A)	509.6	N/A	3.6644 [ 4.0000 ]	91.6% { 84.8% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 112902	(7.62, N/A) (N/A, 0.01, N/A)	537.4	N/A	4.2710 [ 4.0000 ]	106.8% { 101.5% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 129285	(9.05, N/A) (N/A, 0.02, N/A)	546.8	N/A	4.9021 [ 4.0000 ]	122.6% { 116.8% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 920482	(10.19, N/A) (N/A, 0.02, N/A)	997.6	N/A	1.7842 [ 2.0000 ]	89.2% { 88.9% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 251952	(10.61, N/A) (N/A, 0.01, N/A)	739.2	N/A	1.9026 [ 2.0000 ]	95.1% { 107.7% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 174792	(10.70, N/A) (N/A, 0.01, N/A)	753.0	N/A	1.5213 [ 2.0000 ]	76.1% { 81.5% }			



Chemist: DAG  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03823-CAL8  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

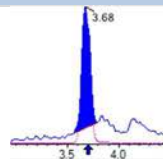
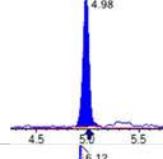
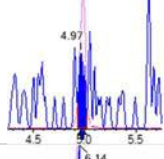
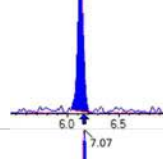
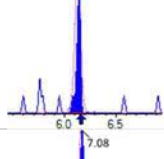
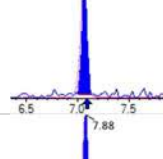
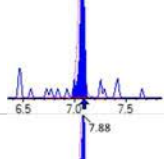
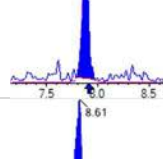
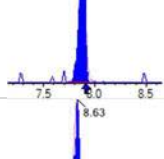
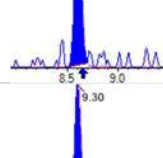
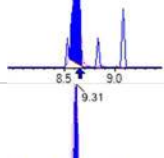
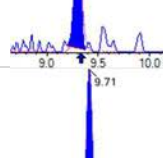
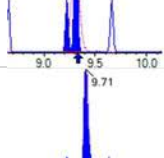
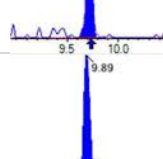
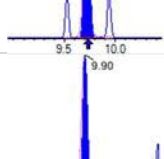
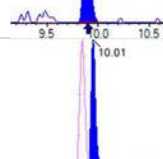
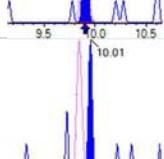
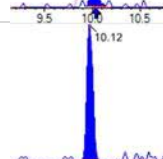
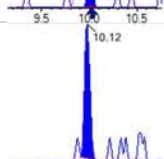

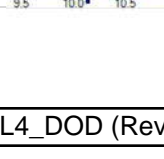
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 Path: S2022-12-13B012.wiff-0  
 Acquired: 2022/12/13 - 21:32

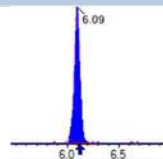
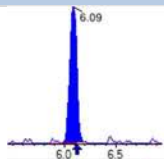
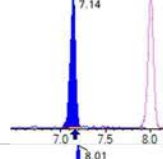
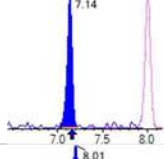
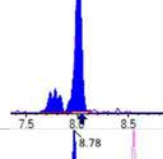
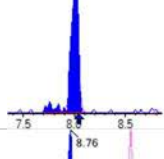
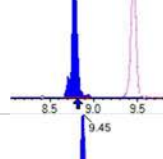
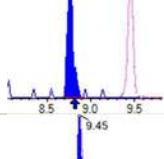
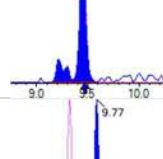
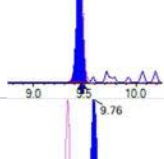
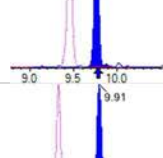
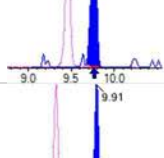
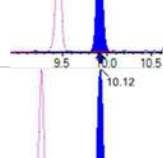
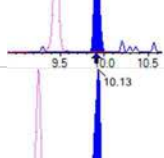
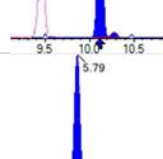
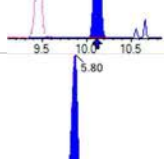
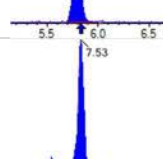
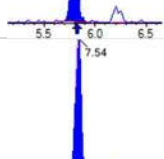
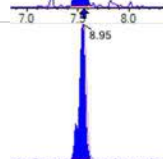
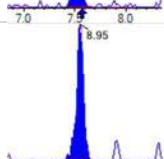

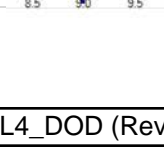
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 306054	(9.57, N/A) (N/A, 0.02, N/A)	360.1	N/A	3.7912 [ 4.0000 ]	94.8% { 96.8% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 203181	(9.72, N/A) (N/A, 0.01, N/A)	228.8	N/A	2.7816 [ 4.0000 ]	69.5% { 68.6% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 439714	(10.57, N/A) (N/A, 0.01, N/A)	1053.2	N/A	17.3200 [ 20.0000 ]	86.6% { 96.9% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 197021	(10.67, N/A) (N/A, 0.01, N/A)	1107.7	N/A	15.4877 [ 20.0000 ]	77.4% { 82.1% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 692021	(6.57, N/A) (N/A, 0.00, N/A)	808.8	N/A	7.3734 [ 8.0000 ]	92.2% { 92.4% }			

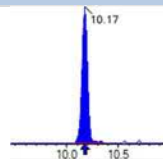
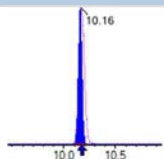
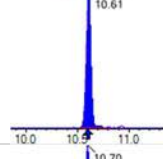
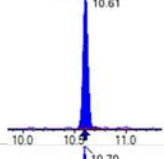
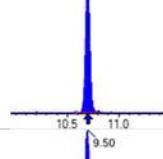
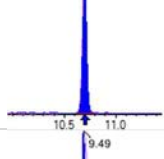
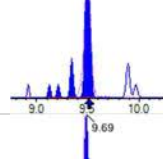
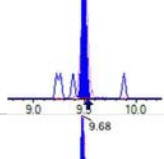
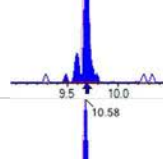
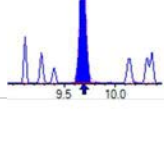
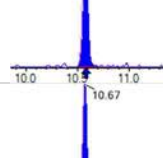
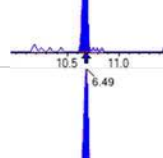
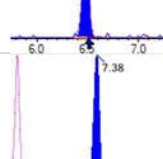
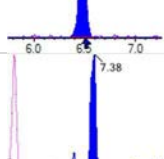
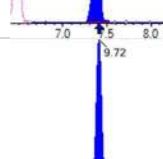
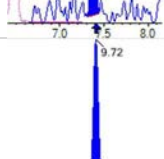
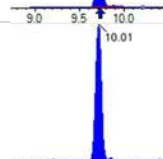
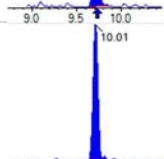

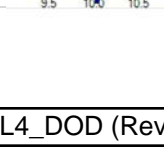
# EPA 1633

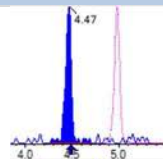
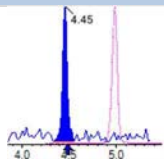
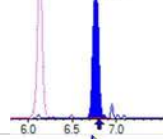
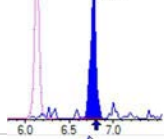
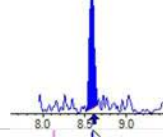
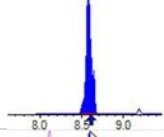
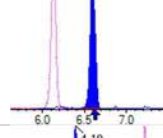
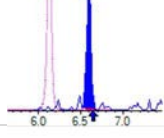
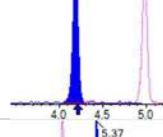
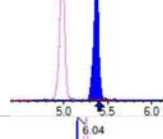
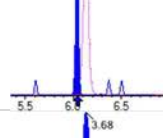
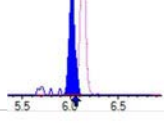
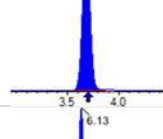
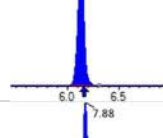
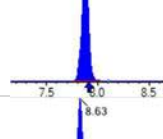
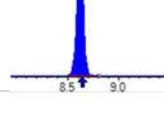
Initial Calibration: SB03856

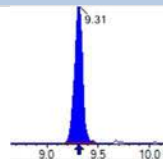
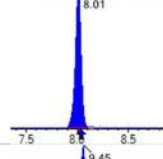
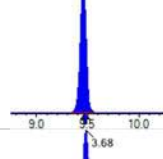
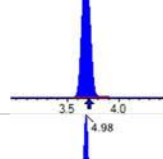
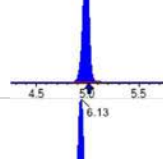
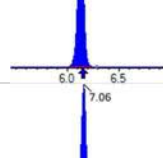
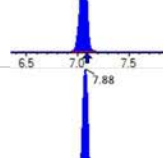
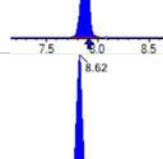
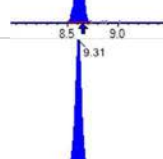
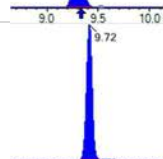



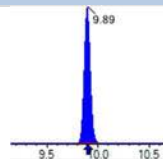
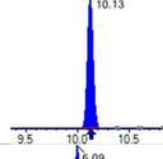
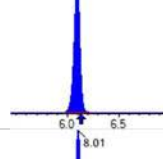
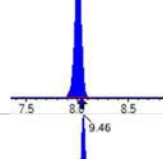
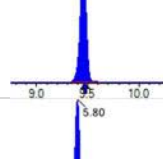
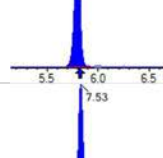
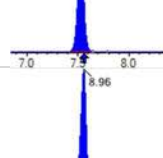
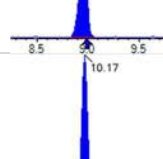
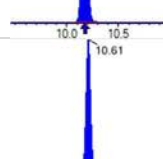
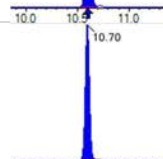

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-Imin, $\Delta$ RT-CVmin, $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 26202	(3.68, 1.00) (0.00, N/A, 0.0)	38.8	N/A 0.0 0.0	0.3877 [0.4000]	96.9%			
PFPeA	(262.9 / 219.0) 20216 (262.9 / 69.0) 118	(4.98, 1.00) (0.00, N/A, 0.9)	161.3 63.2	0.0059 6864.0 57.3	0.2206 [0.2000]	110.3%			
PFHxA	(313.0 / 269.0) 15940 (313.0 / 119.0) 1043	(6.12, 1.00) (0.00, N/A, -1.0)	92.3 71.7	0.0654 66.7 66.7	0.1041 [0.1000]	104.1%			
PFHpA	(363.0 / 319.0) 12365 (363.0 / 169.0) 2999	(7.07, 1.00) (0.01, N/A, -0.5)	96.0 43.8	0.2425 77.6 77.6	0.0983 [0.1000]	98.3%			
PFOA	(413.0 / 369.0) 13915 (413.0 / 169.0) 5087	(7.88, 1.00) (0.00, N/A, -0.1)	60.0 190.1	0.3656 108.6 108.6	0.0952 [0.1000]	95.2%			
PFNA	(463.0 / 419.0) 8342 (463.0 / 169.0) 1696	(8.61, 1.00) (-0.01, N/A, -1.2)	31.7 21.9	0.2033 101.3 101.3	0.0886 [0.1000]	88.6%			
PFDA	(513.0 / 469.0) 12858 (513.0 / 169.0) 1054	(9.30, 1.00) (-0.01, N/A, -0.7)	34.4 147.7	0.0820 103.0 103.0	0.0850 [0.1000]	85.0%			
PFUnA	(563.0 / 519.0) 19074 (563.0 / 169.0) 1321	(9.71, 1.00) (0.00, N/A, 0.3)	65.3 137.0	0.0692 61.8 61.8	0.1157 [0.1000]	115.7%			
PFDoA	(613.0 / 569.0) 18508 (613.0 / 169.0) 2538	(9.89, 1.00) (0.00, N/A, -0.9)	76.7 30.9	0.1371 109.2 109.2	0.1139 [0.1000]	113.9%			
PFTTrDA	(663.0 / 619.0) 16689 (663.0 / 169.0) 1589	(10.01, 1.01) (N/A, -0.02, -0.1)	81.3 32.2	0.0952 45.6 45.6	0.1245 [0.1000]	124.5%			IR1,
PFTeDA	(713.0 / 669.0) 15807 (713.0 / 169.0) 2743	(10.12, 1.00) (-0.01, N/A, -0.3)	76.1 24.1	0.1735 76.4 76.4	0.1168 [0.1000]	116.8%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-Imin, $\Delta$ RT-CVmin, $\Delta$ 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	(298.9 / 80.0) 19696 (298.9 / 99.0) 15679	(6.09, 1.00) (0.00, N/A, 0.4)	346.5 135.1	0.7961 117.1 117.1	0.0863 [0.0885]	97.6%			
PFPeS	(349.0 / 80.0) 38421 (349.0 / 99.0) 10824	(7.14, 0.89) (N/A, -0.02, 0.1)	287.9 110.0	0.2817 75.5 75.5	0.0955 [0.0938]	101.7%			
PFHxS	(399.0 / 80.0) 32405 (399.0 / 99.0) 12360	(8.01, 1.00) (0.00, N/A, 0.2)	192.6 958681.3	0.3814 111.3 111.3	0.0950 [0.0911]	104.3%			
PFHpS	(449.0 / 80.0) 30903 (449.0 / 99.0) 8109	(8.78, 0.93) (N/A, -0.03, 0.9)	217.4 94.8	0.2624 89.4 89.4	0.0936 [0.0951]	98.4%			
PFOS	(499.0 / 80.0) 41034 (499.0 / 99.0) 11653	(9.45, 1.00) (-0.01, N/A, 0.3)	127.5 60.7	0.2840 124.2 124.2	0.1003 [0.0927]	108.1%			
PFNS	(549.0 / 80.0) 42870 (549.0 / 99.0) 12433	(9.77, 1.03) (N/A, 0.00, 0.3)	192.6 63.8	0.2900 116.2 116.2	0.0911 [0.0960]	94.9%			
PFDS	(599.0 / 80.0) 56078 (599.0 / 99.0) 11971	(9.91, 1.05) (N/A, 0.00, 0.0)	254.4 94.1	0.2135 83.7 83.7	0.0966 [0.0963]	100.3%			
PFDoS	(698.9 / 80.0) 22048 (698.9 / 99.0) 9161	(10.12, 1.07) (N/A, 0.01, -0.4)	324.3 359.2	0.4155 202.2 202.2	0.0728 [0.0970]	75.0%			IR2,
4:2FTS	(327.0 / 307.0) 28317 (327.0 / 81.0) 18233	(5.79, 1.00) (0.00, N/A, -0.4)	356.8 138.5	0.6439 128.8 128.8	0.3965 [0.3738]	106.1%			
6:2FTS	(427.0 / 407.0) 20428 (427.0 / 81.0) 12748	(7.53, 1.00) (0.00, N/A, -0.3)	125.3 118.8	0.6240 87.1 87.1	0.3912 [0.3796]	103.1%			
8:2FTS	(527.0 / 507.0) 14799 (527.0 / 81.0) 12046	(8.95, 1.00) (-0.01, N/A, -0.4)	578549.0 72.9	0.8140 115.7 115.7	0.4163 [0.3833]	108.6%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-Imin, $\Delta$ RT-CVmin, $\Delta$ 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) 49903 (498.0 / 478.0) 619	(10.17, 1.00) (0.00, N/A, 0.9)	308.0 55462.2	0.0124 52.5 52.5	0.1011 [0.1000]	101.1%			
NMeFOSA	(511.9 / 219.0) 36977 (511.9 / 169.0) 25518	(10.61, 1.00) (0.00, N/A, 0.2)	276.3 319.1	0.6901 99.0 99.0	0.4203 [0.4000]	105.1%			
NEIFOSA	(526.0 / 219.0) 41770 (526.0 / 169.0) 41732	(10.70, 1.00) (0.00, N/A, 0.0)	528.0 379.3	0.9991 88.7 88.7	0.4502 [0.4000]	112.6%			
NMeFOSAA	(570.0 / 419.0) 5967 (570.0 / 483.0) 2187	(9.50, 1.00) (0.00, N/A, 0.4)	237539.6 67.4	0.3665 78.0 78.0	0.0904 [0.1000]	90.4%			
NEIFOSAA	(584.0 / 419.0) 8488 (584.0 / 526.0) 4249	(9.69, 1.00) (0.01, N/A, 0.6)	434.2 8600.2	0.5006 65.0 65.0	0.1133 [0.1000]	113.3%			
NMeFOSE	(616.1 / 59.0) 10652	(10.58, 1.00) (0.01, N/A, 0.0)	177.5	N/A 0.0 0.0	0.3682 [0.4000]	92.0%			
NEtFOSE	(630.0 / 59.0) 3054	(10.67, 1.00) (0.01, N/A, 0.0)	99.4	N/A 0.0 0.0	0.4362 [0.4000]	109.0%			
HFPO-DA	(285.0 / 169.0) 11751 (285.0 / 185.0) 34089	(6.49, 1.00) (0.00, N/A, 0.2)	193.0 305.0	2.9009 113.7 113.7	0.2048 [0.2000]	102.4%			
ADONA	(377.0 / 85.0) 47431 (377.0 / 251.0) 6004	(7.38, 1.14) (N/A, -0.03, 0.4)	368.7 23.4	0.1266 100.9 100.9	0.1994 [0.1885]	105.8%			
9CI-Pr3ONS	(531.0 / 351.0) 145371 (533.0 / 353.0) 49653	(9.72, 1.50) (N/A, 0.00, 0.1)	394.3 126.1	0.3416 107.8 107.8	0.2155 [0.1867]	115.5%			
11Cl-PF3OUDS	(631.0 / 451.0) 83924 (633.0 / 453.0) 28869	(10.01, 1.54) (N/A, 0.00, 0.0)	397.1 340.6	0.3440 117.6 117.6	0.1888 [0.1886]	100.1%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-Imin, $\Delta$ RT-CVmin, $\Delta$ 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) 1207 (241.0 / 117.0) 3221	(4.47, 0.90) (N/A, -0.02, 0.8)	576.8 51.4	2.6679 0.2 161.2	0.3072 [0.4000]	76.8%			IR1,IR2,
5:3FTCA	(341.0 / 236.7) 11316 (341.0 / 217.0) 17605	(6.76, 1.10) (N/A, -0.03, -0.5)	127.0 69.0	1.5557 98.5 98.5	0.3628 [0.4000]	90.7%			
7:3FTCA	(441.0 / 317.0) 13582 (441.0 / 337.0) 10341	(8.58, 1.40) (N/A, -0.03, 0.3)	40.4 1069.8	0.7614 93.6 93.6	0.3859 [0.4000]	96.5%			
PFEESA	(315.0 / 135.0) 26919 (315.0 / 83.0) 8686	(6.60, 1.08) (N/A, -0.03, -0.2)	273.9 76.5	0.3227 114.2 114.2	0.1711 [0.1785]	95.9%			
PFMPA	(229.0 / 85.0) 4993	(4.19, 0.84) (N/A, -0.03, 0.0)	281.2	N/A 0.0 0.0	0.2019 [0.2000]	100.9%			
PFMBA	(279.0 / 85.0) 16059	(5.37, 1.08) (N/A, -0.03, 0.0)	473.8	N/A 0.0 0.0	0.1989 [0.2000]	99.4%			
NFDHA	(201.0 / 85.0) 904 (295.0 / 201.0) 3250	(6.04, 0.99) (N/A, 0.00, 1.4)	473.6 86.3	3.5968 0.5 43.7	0.1832 [0.2000]	91.6%			IR1,
13C3_PFBA_IIS	(216.0 / 172.0) 95921	(3.68, N/A) (N/A, -0.03, N/A)	683.2	N/A	1.0971 [1.0000]	109.7% {103.9%}			
13C2_PFHxA_IIS	(315.1 / 270.0) 115566	(6.13, N/A) (N/A, -0.03, N/A)	682.1	N/A	0.8783 [1.0000]	87.8% {91.8%}			
13C4_PFOA_IIS	(417.0 / 372.0) 122944	(7.88, N/A) (N/A, -0.03, N/A)	810.6	N/A	0.9822 [1.0000]	98.2% {96.6%}			
13C5_PFNA_IIS	(468.0 / 423.0) 100316	(8.63, N/A) (N/A, -0.02, N/A)	308.2	N/A	1.0050 [1.0000]	100.5% {91.3%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-Imin, $\Delta$ RT-CVmin, $\Delta$ 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	(515.1 / 470.1) 92290	(9.31, N/A) (N/A, -0.01, N/A)	224.1	N/A	0.8899 [1.0000]	89.0% {93.9%}			
18O2_PFHxS_IIS	(403.0 / 83.9) 246307	(8.01, N/A) (N/A, -0.03, N/A)	713.6	N/A	1.0411 [1.0000]	104.1% {97.4%}			
13C4_PFOS_IIS	(502.8 / 79.9) 213167	(9.45, N/A) (N/A, -0.02, N/A)	516.3	N/A	1.0625 [1.0000]	106.3% {96.5%}			
13C4_PFBA_EIS	(217.0 / 172.0) 814007	(3.68, N/A) (N/A, -0.03, N/A)	900.6	N/A	8.1967 [8.0000]	102.5% {112.3%}			
13C5_PFPeA_EIS	(267.9 / 223.0) 404862	(4.98, N/A) (N/A, -0.03, N/A)	945.0	N/A	4.7585 [4.0000]	119.0% {107.3%}			
13C5_PFHxA_EIS	(318.0 / 273.0) 337635	(6.13, N/A) (N/A, -0.03, N/A)	683.6	N/A	2.4818 [2.0000]	124.1% {111.4%}			
13C4_PFHpA_EIS	(367.0 / 322.0) 278644	(7.06, N/A) (N/A, -0.04, N/A)	609.2	N/A	2.3183 [2.0000]	115.9% {101.7%}			
13C8_PFOA_EIS	(421.0 / 376.0) 308557	(7.88, N/A) (N/A, -0.03, N/A)	683.9	N/A	2.2713 [2.0000]	113.6% {121.8%}			
13C9_PFNA_EIS	(472.0 / 427.0) 111370	(8.62, N/A) (N/A, -0.03, N/A)	437.3	N/A	1.0164 [1.0000]	101.6% {106.5%}			
13C6_PFDA_EIS	(519.0 / 474.0) 164122	(9.31, N/A) (N/A, -0.02, N/A)	310.9	N/A	1.3124 [1.0000]	131.2% {115.1%}			
13C7_PFUnA_EIS	(570.0 / 525.0) 221111	(9.72, N/A) (N/A, 0.00, N/A)	288.8	N/A	1.2280 [1.0000]	122.8% {118.2%}			

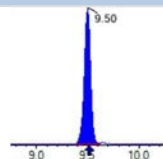
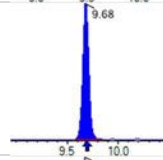
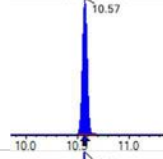
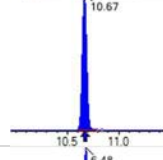
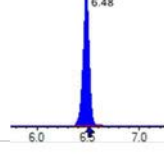
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-Imin, $\Delta$ RT-CVmin, $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 202842	(9.89, N/A) (N/A, 0.00, N/A)	463.1	N/A	0.9989 [1.0000]	99.9% {94.0%}			
13C2_PFTeDA_EIS	(715.0 / 670.0) 141467	(10.13, N/A) (N/A, 0.00, N/A)	332.4	N/A	1.1462 [1.0000]	114.6% {117.0%}			
13C3_PFBs_EIS	(302.0 / 80.0) 835308	(6.09, N/A) (N/A, -0.03, N/A)	911.2	N/A	2.0765 [2.0000]	103.8% {110.0%}			
13C3_PFHxS_EIS	(402.0 / 80.0) 429028	(8.01, N/A) (N/A, -0.03, N/A)	1084.1	N/A	2.0565 [2.0000]	102.8% {111.3%}			
13C8_PFOS_EIS	(507.0 / 80.0) 744475	(9.46, N/A) (N/A, -0.02, N/A)	460.3	N/A	2.1261 [2.0000]	106.3% {111.4%}			
13C2_4:2FTS_EIS	(329.0 / 81.0) 89571	(5.80, N/A) (N/A, -0.03, N/A)	542.9	N/A	3.9488 [4.0000]	98.7% {101.6%}			
13C2_6:2FTS_EIS	(429.0 / 81.0) 135267	(7.53, N/A) (N/A, -0.04, N/A)	685.8	N/A	4.6533 [4.0000]	116.3% {126.6%}			
13C2_8:2FTS_EIS	(529.0 / 81.0) 97003	(8.96, N/A) (N/A, -0.03, N/A)	396.1	N/A	3.7222 [4.0000]	93.1% {102.7%}			
13C8_PFOsa_EIS	(506.0 / 78.0) 991681	(10.17, N/A) (N/A, -0.01, N/A)	1139.4	N/A	1.9460 [2.0000]	97.3% {101.9%}			
D3_NMeFOSA_EIS	(515.0 / 169.0) 220542	(10.61, N/A) (N/A, 0.00, N/A)	881.0	N/A	1.7371 [2.0000]	86.9% {91.9%}			
D5_NEiFOSA_EIS	(531.1 / 169.0) 203470	(10.70, N/A) (N/A, 0.00, N/A)	1035.3	N/A	1.7163 [2.0000]	85.8% {88.5%}			

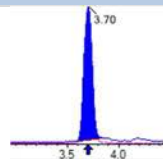
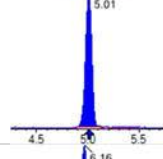
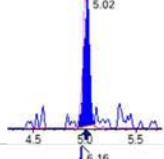
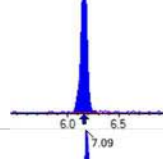
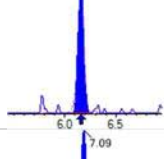
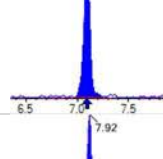
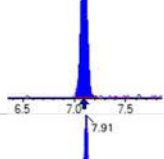
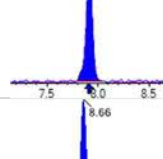
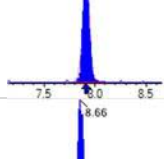
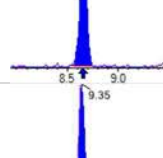
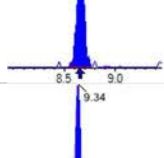
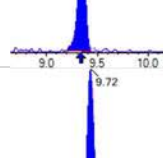
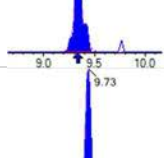
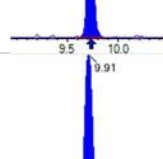
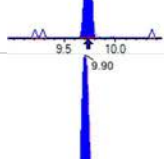
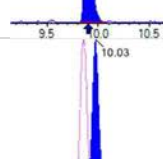
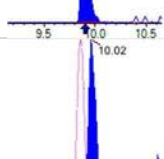
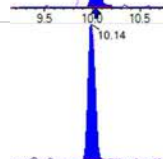
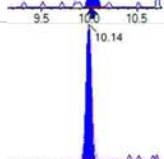

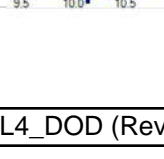


Chemist: DAG  
 Instrument: Saphira  
 Type: Sciex Q3 5500

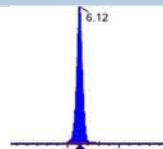
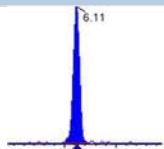
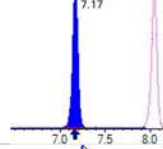
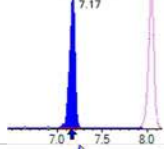
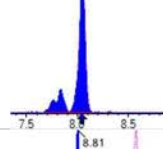
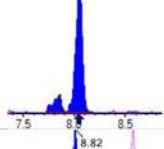
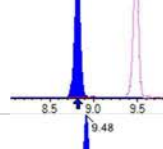
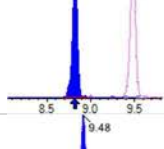
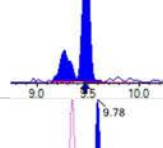
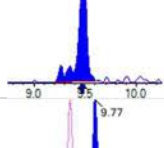
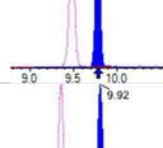
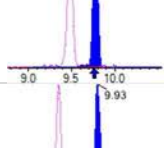
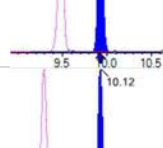
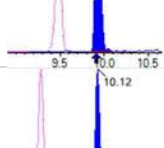
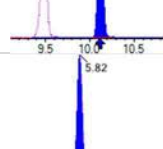
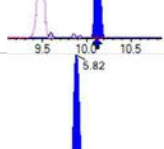
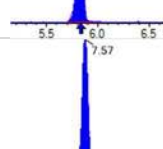
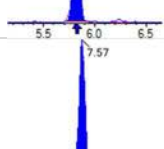
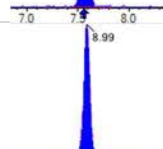
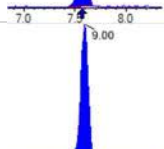

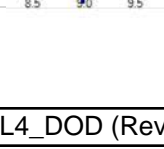
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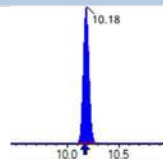
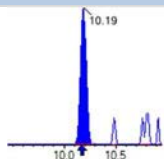
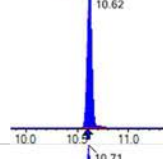
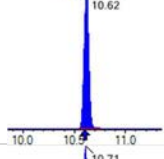
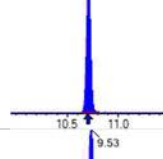
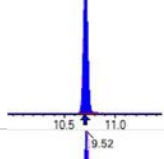
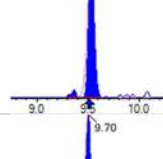
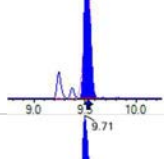
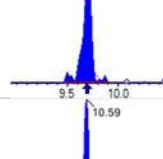
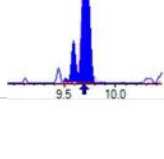
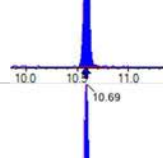
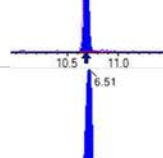
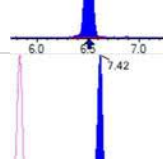
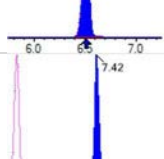
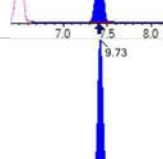
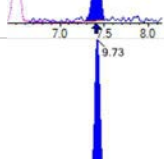
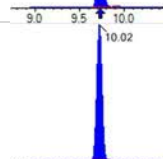
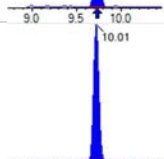

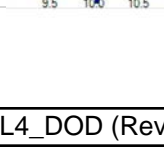
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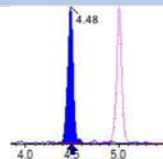
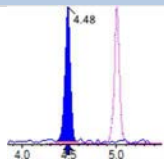
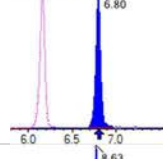
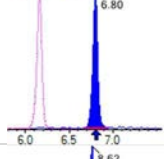
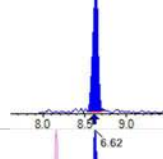
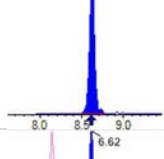
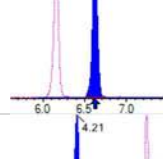
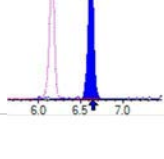
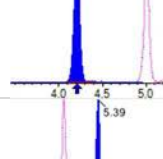
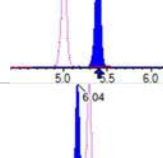
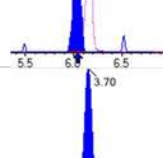
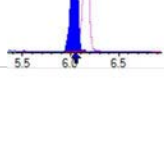
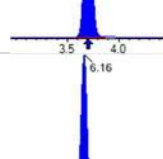
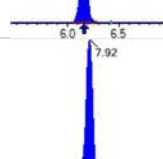
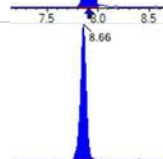

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-Imin, ΔRT-CVmin, ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration True ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	(573.0 / 419.0) 364127	(9.50, N/A) (N/A, -0.02, N/A)	305.6	N/A	4.4330 [4.0000]	110.8% {127.8%}			
D5_EtFOSAA_EIS	(589.0 / 419.0) 332493	(9.68, N/A) (N/A, -0.01, N/A)	393.7	N/A	4.8706 [4.0000]	121.8% {129.8%}			
D7_NMeFOSE_EIS	(623.2 / 58.9) 454423	(10.57, N/A) (N/A, 0.00, N/A)	991.8	N/A	18.6078 [20.0000]	93.0% {90.7%}			
D9_NEtFOSE_EIS	(639.2 / 58.9) 219374	(10.67, N/A) (N/A, 0.00, N/A)	808.9	N/A	16.6816 [20.0000]	83.4% {82.8%}			
13C3_HFPODA_EIS	(287.0 / 169.0) 751271	(6.48, N/A) (N/A, -0.03, N/A)	846.5	N/A	9.0699 [8.0000]	113.4% {101.0%}			

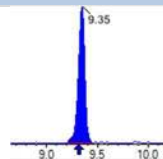
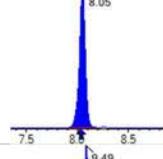
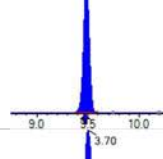
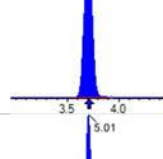
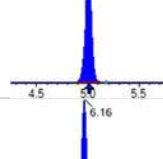
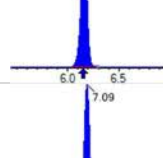
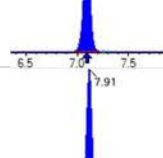
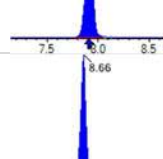
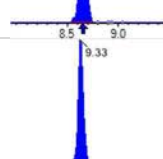
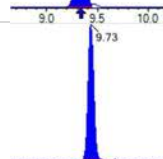

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 125935	(3.70, 1.00) (0.00, N/A, 0.0)	60.6	N/A 0.0 0.0	2.0060 [2.0000]	100.3%			
PFPeA	(262.9 / 219.0) 83381 (262.9 / 69.0) 860	(5.01, 1.00) (0.00, N/A, -0.8)	466.4 41.6	0.0103 12088.7 101.0	0.8863 [1.0000]	88.6%			
PFHxA	(313.0 / 269.0) 67856 (313.0 / 119.0) 6616	(6.16, 1.00) (0.00, N/A, 0.2)	237.0 85.6	0.0975 99.4 99.4	0.5098 [0.5000]	102.0%			
PFHpA	(363.0 / 319.0) 59295 (363.0 / 169.0) 21534	(7.09, 1.00) (0.00, N/A, 0.1)	173.5 225.2	0.3632 116.2 116.2	0.4596 [0.5000]	91.9%			
PFOA	(413.0 / 369.0) 69518 (413.0 / 169.0) 24309	(7.92, 1.00) (0.00, N/A, 0.3)	218.4 295.0	0.3497 103.8 103.8	0.5224 [0.5000]	104.5%			
PFNA	(463.0 / 419.0) 49099 (463.0 / 169.0) 10673	(8.66, 1.00) (0.00, N/A, -0.1)	191.2 71.3	0.2174 108.3 108.3	0.5370 [0.5000]	107.4%			
PFDA	(513.0 / 469.0) 68516 (513.0 / 169.0) 6591	(9.35, 1.00) (0.01, N/A, 0.4)	136.0 554.4	0.0962 120.9 120.9	0.5079 [0.5000]	101.6%			
PFUnA	(563.0 / 519.0) 70748 (563.0 / 169.0) 8146	(9.72, 1.00) (-0.01, N/A, -0.5)	232.7 195.0	0.1151 102.8 102.8	0.4345 [0.5000]	86.9%			
PFDoA	(613.0 / 569.0) 80069 (613.0 / 169.0) 13933	(9.91, 1.00) (0.00, N/A, 0.3)	344.0 84.0	0.1740 138.5 138.5	0.4488 [0.5000]	89.8%			
PFTTrDA	(663.0 / 619.0) 63205 (663.0 / 169.0) 14290	(10.03, 1.01) (N/A, 0.01, 0.4)	385.0 80.7	0.2261 108.2 108.2	0.4293 [0.5000]	85.9%			
PFTeDA	(713.0 / 669.0) 64304 (713.0 / 169.0) 10370	(10.14, 1.00) (-0.01, N/A, -0.2)	237.2 180.0	0.1613 71.0 71.0	0.4563 [0.5000]	91.3%			

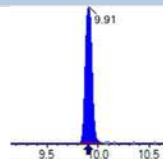
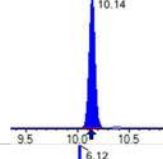
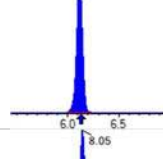
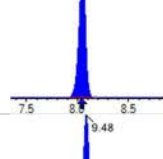
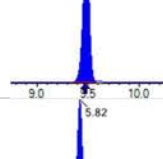
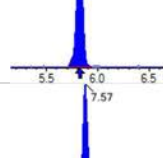
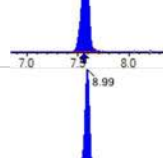
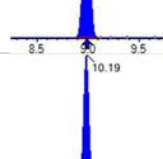
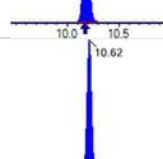
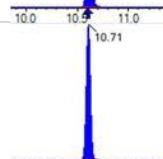



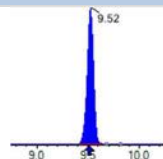
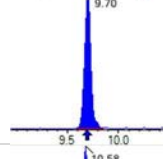
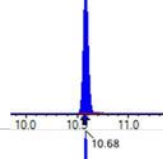
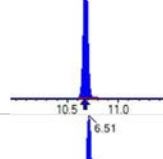
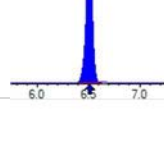
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 94901 (298.9 / 99.0) 64012	(6.12, 1.00) (0.00, N/A, 0.0)	449.9 323.0	0.6745 99.2 99.2	0.4106 [0.4424]	92.8%			
PFPeS	(349.0 / 80.0) 163811 (349.0 / 99.0) 65481	(7.17, 0.89) (N/A, 0.00, -0.3)	655.4 520.9	0.3997 107.1 107.1	0.4312 [0.4692]	91.9%			
PFHxS	(399.0 / 80.0) 146986 (399.0 / 99.0) 49536	(8.05, 1.00) (0.00, N/A, 0.0)	4139.7 177794.8	0.3370 98.3 98.3	0.4564 [0.4555]	100.2%			
PFHpS	(449.0 / 80.0) 141968 (449.0 / 99.0) 41741	(8.81, 0.93) (N/A, 0.01, -0.4)	579.2 247.2	0.2940 100.2 100.2	0.5119 [0.4757]	107.6%			
PFOS	(499.0 / 80.0) 152442 (499.0 / 99.0) 33844	(9.48, 1.00) (0.00, N/A, 0.0)	196.3 67.2	0.2220 97.1 97.1	0.4434 [0.4637]	95.6%			
PFNS	(549.0 / 80.0) 195844 (549.0 / 99.0) 42470	(9.78, 1.03) (N/A, 0.01, 0.2)	406.9 204.6	0.2169 86.9 86.9	0.4954 [0.4799]	103.2%			
PFDS	(599.0 / 80.0) 249653 (599.0 / 99.0) 56760	(9.92, 1.05) (N/A, 0.01, 0.0)	552.8 198.1	0.2274 89.2 89.2	0.5117 [0.4816]	106.3%			
PFDoS	(698.9 / 80.0) 133694 (698.9 / 99.0) 30985	(10.12, 1.07) (N/A, 0.01, -0.2)	473.6 304.5	0.2318 112.8 112.8	0.5250 [0.4848]	108.3%			
4:2FTS	(327.0 / 307.0) 142430 (327.0 / 81.0) 79086	(5.82, 1.00) (0.00, N/A, 0.1)	754.8 419.1	0.5553 111.1 111.1	1.9023 [1.8691]	101.8%			
6:2FTS	(427.0 / 407.0) 85076 (427.0 / 81.0) 61118	(7.57, 1.00) (0.00, N/A, 0.0)	336.6 342.7	0.7184 100.3 100.3	2.0699 [1.8981]	109.1%			
8:2FTS	(527.0 / 507.0) 70392 (527.0 / 81.0) 47293	(8.99, 1.00) (0.00, N/A, -0.4)	276.5 188.8	0.6719 95.5 95.5	1.8760 [1.9166]	97.9%			

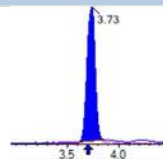
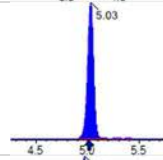
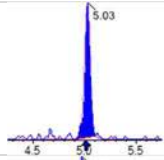
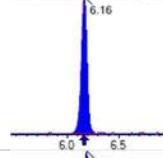
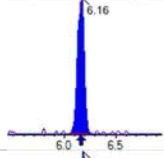
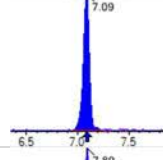
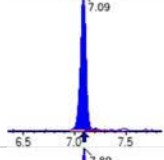
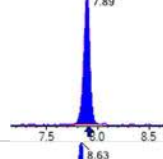
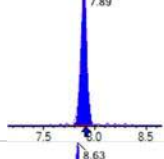
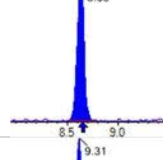
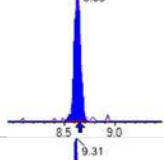
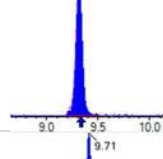
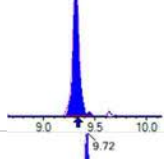
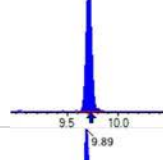
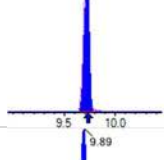
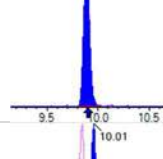
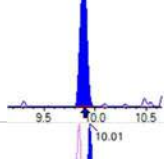
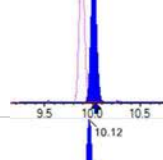
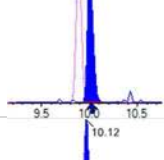
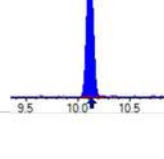
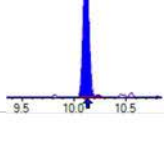
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 246376 (498.0 / 478.0) 2721	(10.18, 1.00) (0.00, N/A, -0.2)	684.3 57.0	0.0110 46.7 46.7	0.4560 [0.5000]	91.2%			
NMeFOSA	(511.9 / 219.0) 195687 (511.9 / 169.0) 125345	(10.62, 1.00) (0.00, N/A, 0.1)	1138.4 1092.6	0.6405 91.9 91.9	2.2683 [2.0000]	113.4%			
NEIFOSA	(526.0 / 219.0) 195155 (526.0 / 169.0) 212089	(10.71, 1.00) (0.00, N/A, 0.1)	1386.3 975.7	1.0868 96.5 96.5	1.8947 [2.0000]	94.7%			
NMeFOSAA	(570.0 / 419.0) 23920 (570.0 / 483.0) 11463	(9.53, 1.00) (0.01, N/A, 0.9)	215.1 125.1	0.4792 102.0 102.0	0.4311 [0.5000]	86.2%			MI5 DG 2022-12-15
NEIFOSAA	(584.0 / 419.0) 26579 (584.0 / 526.0) 19365	(9.70, 1.00) (0.00, N/A, -0.2)	946.9 621744.1	0.7286 94.6 94.6	0.4487 [0.5000]	89.7%			
NMeFOSE	(616.1 / 59.0) 55696	(10.59, 1.00) (0.01, N/A, 0.0)	345.7	N/A 0.0 0.0	1.9707 [2.0000]	98.5%			
NEtFOSE	(630.0 / 59.0) 15539	(10.69, 1.00) (0.01, N/A, 0.0)	550.5	N/A 0.0 0.0	1.9603 [2.0000]	98.0%			
HFPO-DA	(285.0 / 169.0) 55056 (285.0 / 185.0) 186281	(6.51, 1.00) (0.00, N/A, -0.1)	404.6 872.5	3.3835 132.6 132.6	0.9060 [1.0000]	90.6%			
ADONA	(377.0 / 85.0) 219376 (377.0 / 251.0) 26210	(7.42, 1.14) (N/A, 0.01, 0.2)	719.5 105.0	0.1195 95.3 95.3	0.8708 [0.9427]	92.4%			
9CI-PI3ONS	(531.0 / 351.0) 677282 (533.0 / 353.0) 221740	(9.73, 1.49) (N/A, 0.01, 0.0)	505.8 340.2	0.3274 103.4 103.4	0.9480 [0.9333]	101.6%			
11CI-PF3OUDS	(631.0 / 451.0) 420764 (633.0 / 453.0) 137837	(10.02, 1.54) (N/A, 0.01, 0.1)	711.1 793.4	0.3276 112.0 112.0	0.8938 [0.9432]	94.8%			

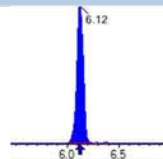
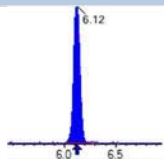
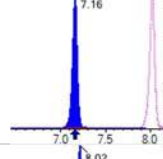
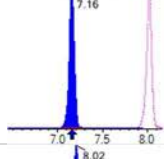
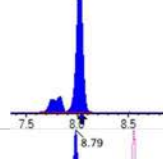
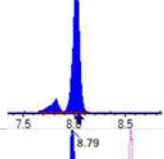
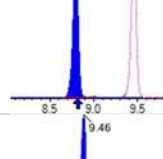
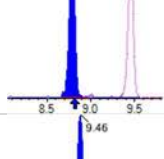
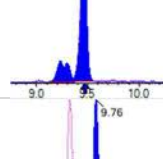
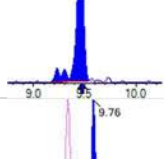
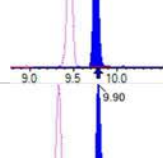
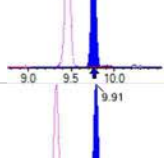
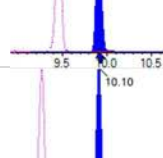
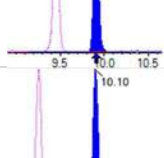
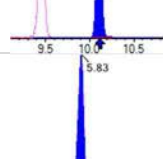
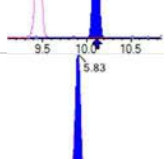
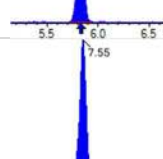
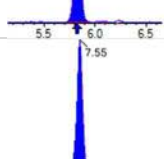
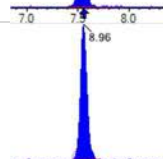
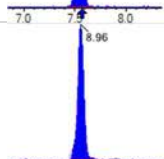

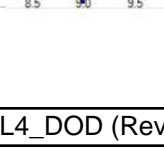
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 8063 (241.0 / 117.0) 11957	(4.48, 0.90) (N/A, -0.01, 0.1)	267.6 159.9	1.4830 0.1 89.6	1.9982 [2.0000]	99.9%			IR1,
5:3FTCA	(341.0 / 236.7) 58587 (341.0 / 217.0) 98879	(6.80, 1.10) (N/A, 0.00, -0.1)	344.3 260.9	1.6877 106.8 106.8	2.1615 [2.0000]	108.1%			
7:3FTCA	(441.0 / 317.0) 62197 (441.0 / 337.0) 56220	(8.63, 1.40) (N/A, 0.01, 0.5)	146.7 253.8	0.9039 111.1 111.1	2.0333 [2.0000]	101.7%			
PFEESA	(315.0 / 135.0) 134371 (315.0 / 83.0) 38381	(6.62, 1.08) (N/A, 0.00, 0.1)	774.4 241.4	0.2856 101.1 101.1	0.9830 [0.8925]	110.1%			
PFMPA	(229.0 / 85.0) 23201	(4.21, 0.84) (N/A, 0.00, 0.0)	590.9	N/A 0.0 0.0	0.9137 [1.0000]	91.4%			
PFMBA	(279.0 / 85.0) 82301	(5.39, 1.08) (N/A, -0.01, 0.0)	837.9	N/A 0.0 0.0	0.9928 [1.0000]	99.3%			
NFDHA	(201.0 / 85.0) 3080 (295.0 / 201.0) 20638	(6.04, 0.98) (N/A, 0.00, 0.2)	526.3 304.5	6.7007 0.8 81.3	1.0583 [1.0000]	105.8%			IR1,
13C3_PFBA_IIS	(216.0 / 172.0) 92259	(3.70, N/A) (N/A, 0.00, N/A)	849.5	N/A	1.0552 [1.0000]	105.5% {100.0%}			
13C2_PFHxA_IIS	(315.1 / 270.0) 134985	(6.16, N/A) (N/A, 0.00, N/A)	615.4	N/A	1.0259 [1.0000]	102.6% {107.3%}			
13C4_PFOA_IIS	(417.0 / 372.0) 132157	(7.92, N/A) (N/A, 0.01, N/A)	465.6	N/A	1.0558 [1.0000]	105.6% {103.9%}			
13C5_PFNA_IIS	(468.0 / 423.0) 108681	(8.66, N/A) (N/A, 0.02, N/A)	569.6	N/A	1.0888 [1.0000]	108.9% {98.9%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 95710	(9.35, N/A) (N/A, 0.02, N/A)	351.0	N/A	0.9229 [ 1.0000 ]	92.3% { 97.4% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 236997	(8.05, N/A) (N/A, 0.01, N/A)	617.5	N/A	1.0018 [ 1.0000 ]	100.2% { 93.7% }			
13C4_PFOS_IIS	(502.8 / 79.9) 200395	(9.49, N/A) (N/A, 0.01, N/A)	455.4	N/A	0.9989 [ 1.0000 ]	99.9% { 90.8% }			
13C4_PFBA_EIS	(217.0 / 172.0) 756165	(3.70, N/A) (N/A, -0.01, N/A)	916.8	N/A	7.9165 [ 8.0000 ]	99.0% { 104.3% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 415663	(5.01, N/A) (N/A, -0.01, N/A)	783.6	N/A	4.1826 [ 4.0000 ]	104.6% { 110.1% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 293436	(6.16, N/A) (N/A, 0.00, N/A)	543.5	N/A	1.8466 [ 2.0000 ]	92.3% { 96.8% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 285768	(7.09, N/A) (N/A, 0.00, N/A)	565.8	N/A	2.0355 [ 2.0000 ]	101.8% { 104.3% }			
13C8_PFOA_EIS	(421.0 / 376.0) 280809	(7.91, N/A) (N/A, 0.01, N/A)	622.0	N/A	1.9229 [ 2.0000 ]	96.1% { 110.8% }			
13C9_PFNA_EIS	(472.0 / 427.0) 108207	(8.66, N/A) (N/A, 0.01, N/A)	317.5	N/A	0.9115 [ 1.0000 ]	91.1% { 103.5% }			
13C6_PFDA_EIS	(519.0 / 474.0) 146319	(9.33, N/A) (N/A, 0.00, N/A)	283.1	N/A	1.1282 [ 1.0000 ]	112.8% { 102.6% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 218485	(9.73, N/A) (N/A, 0.01, N/A)	483.0	N/A	1.1700 [ 1.0000 ]	117.0% { 116.8% }			

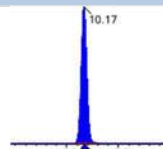
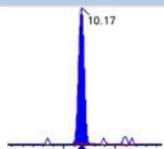
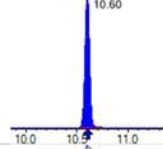
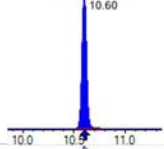
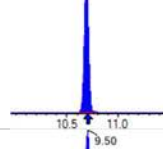
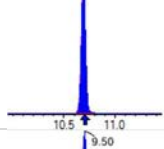
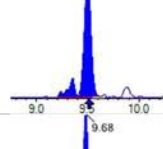
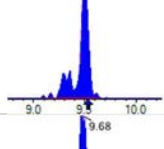
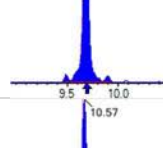
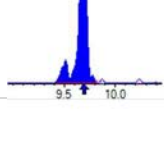
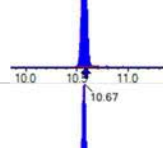
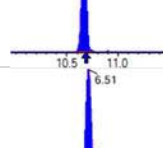
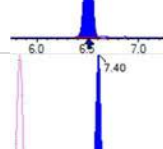
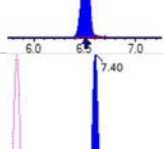
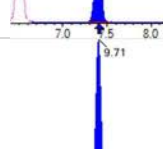
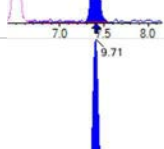
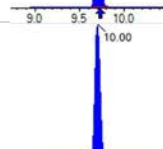
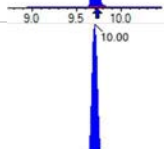

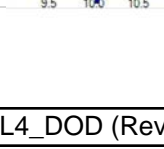
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 222714	(9.91, N/A) (N/A, 0.01, N/A)	333.1	N/A	1.0576 [ 1.0000 ]	105.8% { 103.3% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 147242	(10.14, N/A) (N/A, 0.01, N/A)	499.6	N/A	1.1504 [ 1.0000 ]	115.0% { 121.7% }			
13C3_PFBs_EIS	(302.0 / 80.0) 846308	(6.12, N/A) (N/A, -0.01, N/A)	852.5	N/A	2.1865 [ 2.0000 ]	109.3% { 111.5% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 404991	(8.05, N/A) (N/A, 0.01, N/A)	823.4	N/A	2.0176 [ 2.0000 ]	100.9% { 105.1% }			
13C8_PFOS_EIS	(507.0 / 80.0) 625646	(9.48, N/A) (N/A, 0.01, N/A)	504.3	N/A	1.9006 [ 2.0000 ]	95.0% { 93.6% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 93907	(5.82, N/A) (N/A, 0.00, N/A)	535.3	N/A	4.3026 [ 4.0000 ]	107.6% { 106.5% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 106480	(7.57, N/A) (N/A, 0.01, N/A)	575.8	N/A	3.8069 [ 4.0000 ]	95.2% { 99.7% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 102397	(8.99, N/A) (N/A, 0.01, N/A)	382.0	N/A	4.0835 [ 4.0000 ]	102.1% { 108.4% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 1085721	(10.19, N/A) (N/A, 0.01, N/A)	847.3	N/A	2.2663 [ 2.0000 ]	113.3% { 111.6% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 216263	(10.62, N/A) (N/A, 0.01, N/A)	858.4	N/A	1.8120 [ 2.0000 ]	90.6% { 90.1% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 225897	(10.71, N/A) (N/A, 0.01, N/A)	1086.7	N/A	2.0269 [ 2.0000 ]	101.3% { 98.2% }			

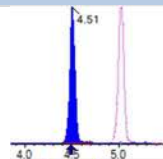
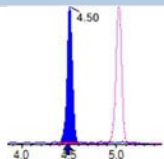
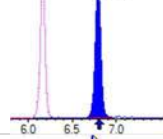
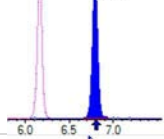
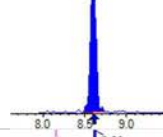
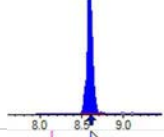
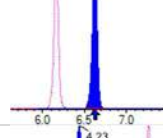
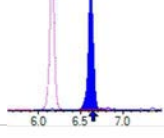
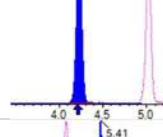
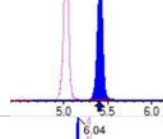
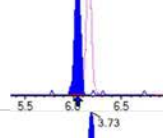
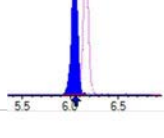
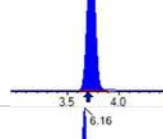
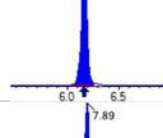
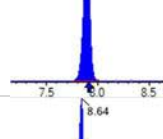
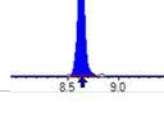
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	( 573.0 / 419.0 ) 306249	( 9.52, N/A ) ( N/A, 0.01, N/A )	299.2	N/A	3.9660 [ 4.0000 ]	99.2% { 107.5% }			
D5_EtFOSAA_EIS	( 589.0 / 419.0 ) 262860	( 9.70, N/A ) ( N/A, 0.01, N/A )	374.8	N/A	4.0959 [ 4.0000 ]	102.4% { 102.6% }			
D7_NMeFOSE_EIS	( 623.2 / 58.9 ) 443916	( 10.58, N/A ) ( N/A, 0.01, N/A )	889.6	N/A	19.3361 [ 20.0000 ]	96.7% { 88.6% }			
D9_NEtFOSE_EIS	( 639.2 / 58.9 ) 248348	( 10.68, N/A ) ( N/A, 0.01, N/A )	1198.5	N/A	20.0883 [ 20.0000 ]	100.4% { 93.8% }			
13C3_HFPODA_EIS	( 287.0 / 169.0 ) 795642	( 6.51, N/A ) ( N/A, 0.00, N/A )	779.9	N/A	8.2237 [ 8.0000 ]	102.8% { 107.0% }			

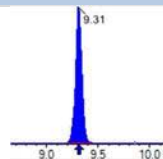
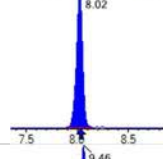
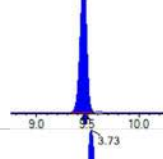
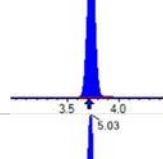
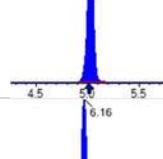
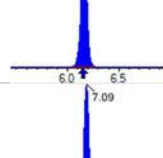
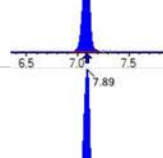
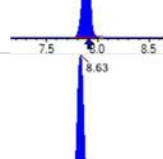
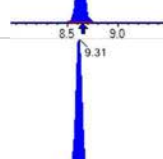
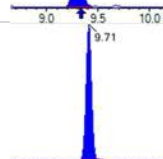

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 242781	(3.73, 1.00) (0.00, N/A, 0.0)	55.5	N/A 0.0 0.0	3.7127 [4.0000]	92.8%			
PFPeA	(262.9 / 219.0) 175499 (262.9 / 69.0) 1821	(5.03, 1.00) (0.00, N/A, 0.1)	627.6 95.3	0.0104 12160.2 101.6	1.8646 [2.0000]	93.2%			
PFHxA	(313.0 / 269.0) 141999 (313.0 / 119.0) 12558	(6.16, 1.00) (0.00, N/A, 0.3)	422.5 123.8	0.0884 90.2 90.2	1.0016 [1.0000]	100.2%			
PFHpA	(363.0 / 319.0) 118537 (363.0 / 169.0) 35723	(7.09, 1.00) (0.00, N/A, 0.0)	310.3 273.9	0.3014 96.4 96.4	0.9545 [1.0000]	95.4%			
PFOA	(413.0 / 369.0) 122924 (413.0 / 169.0) 45734	(7.89, 1.00) (0.00, N/A, 0.1)	358.9 253.7	0.3720 110.5 110.5	0.9149 [1.0000]	91.5%			
PFNA	(463.0 / 419.0) 98102 (463.0 / 169.0) 19342	(8.63, 1.00) (0.00, N/A, 0.3)	232.8 85.5	0.1972 98.3 98.3	1.0072 [1.0000]	100.7%			
PFDA	(513.0 / 469.0) 128169 (513.0 / 169.0) 15093	(9.31, 1.00) (0.00, N/A, 0.2)	316.1 510.7	0.1178 148.0 148.0	0.9853 [1.0000]	98.5%			
PFUnA	(563.0 / 519.0) 161610 (563.0 / 169.0) 16695	(9.71, 1.00) (0.00, N/A, -0.7)	396.2 496.2	0.1033 92.2 92.2	1.0293 [1.0000]	102.9%			
PFDoA	(613.0 / 569.0) 192579 (613.0 / 169.0) 29493	(9.89, 1.00) (0.00, N/A, 0.0)	497.6 125.3	0.1531 121.9 121.9	0.9661 [1.0000]	96.6%			
PFTrDA	(663.0 / 619.0) 143079 (663.0 / 169.0) 26671	(10.01, 1.01) (N/A, -0.01, 0.4)	435.6 149.1	0.1864 89.2 89.2	0.8697 [1.0000]	87.0%			
PFTeDA	(713.0 / 669.0) 123213 (713.0 / 169.0) 25972	(10.12, 1.00) (0.00, N/A, -0.1)	334.4 147.5	0.2108 92.9 92.9	0.9785 [1.0000]	97.9%			

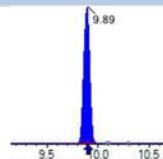
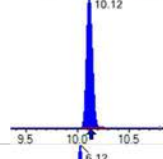
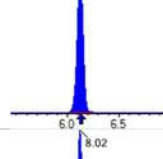
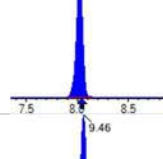
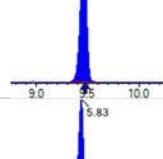
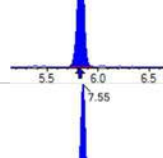
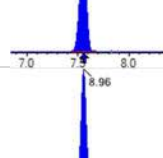
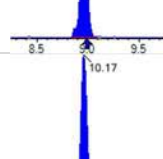
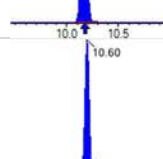
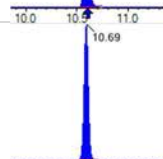

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 186405 (298.9 / 99.0) 120206	(6.12, 1.00) (0.00, N/A, 0.3)	561.7 450.3	0.6449 94.8 94.8	0.8347 [0.8847]	94.3%			
PFPeS	(349.0 / 80.0) 351774 (349.0 / 99.0) 128918	(7.16, 0.89) (N/A, 0.00, 0.2)	771.0 812.1	0.3665 98.2 98.2	0.8695 [0.9384]	92.7%			
PFHxS	(399.0 / 80.0) 293699 (399.0 / 99.0) 99285	(8.02, 1.00) (0.00, N/A, 0.2)	2168.9 33504.3	0.3380 98.6 98.6	0.8563 [0.9110]	94.0%			
PFHpS	(449.0 / 80.0) 289945 (449.0 / 99.0) 75507	(8.79, 0.93) (N/A, -0.01, 0.3)	563.7 283.8	0.2604 88.8 88.8	0.9814 [0.9514]	103.1%			
PFOS	(499.0 / 80.0) 335940 (499.0 / 99.0) 71358	(9.46, 1.00) (0.00, N/A, 0.3)	115.7 95.1	0.2124 92.9 92.9	0.9171 [0.9275]	98.9%			
PFNS	(549.0 / 80.0) 406038 (549.0 / 99.0) 113321	(9.76, 1.03) (N/A, -0.01, 0.2)	640.6 330.1	0.2791 111.8 111.8	0.9640 [0.9599]	100.4%			
PFDS	(599.0 / 80.0) 459883 (599.0 / 99.0) 116836	(9.90, 1.05) (N/A, -0.01, -0.1)	394.2 329.2	0.2541 99.7 99.7	0.8848 [0.9631]	91.9%			
PFDoS	(698.9 / 80.0) 270336 (698.9 / 99.0) 59050	(10.10, 1.07) (N/A, -0.01, 0.2)	385.7 330.2	0.2184 106.3 106.3	0.9965 [0.9696]	102.8%			
4:2FTS	(327.0 / 307.0) 218825 (327.0 / 81.0) 135498	(5.83, 1.00) (0.00, N/A, 0.0)	843.6 544.1	0.6192 123.9 123.9	3.6753 [3.7381]	98.3%			
6:2FTS	(427.0 / 407.0) 151420 (427.0 / 81.0) 98295	(7.55, 1.00) (0.00, N/A, 0.2)	457.2 448.0	0.6492 90.6 90.6	3.6464 [3.7962]	96.1%			
8:2FTS	(527.0 / 507.0) 129977 (527.0 / 81.0) 81360	(8.96, 1.00) (0.00, N/A, -0.1)	436.3 337.4	0.6260 89.0 89.0	4.0635 [3.8332]	106.0%			



Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 474763 (498.0 / 478.0) 10707	(10.17, 1.00) (0.00, N/A, -0.3)	586.8 187.2	0.0226 95.4 95.4	0.9163 [ 1.0000 ]	91.6%			
NMeFOSA	(511.9 / 219.0) 379988 (511.9 / 169.0) 259345	(10.60, 1.00) (0.00, N/A, 0.0)	797.8 732.5	0.6825 97.9 97.9	3.9031 [ 4.0000 ]	97.6%			
NEIFOSA	(526.0 / 219.0) 413880 (526.0 / 169.0) 443168	(10.69, 1.00) (0.00, N/A, 0.0)	1591.2 1283.7	1.0708 95.1 95.1	3.8021 [ 4.0000 ]	95.1%			
NMeFOSAA	(570.0 / 419.0) 53361 (570.0 / 483.0) 33655	(9.50, 1.00) (0.00, N/A, -0.1)	182.3 5064.0	0.6307 134.3 134.3	1.0921 [ 1.0000 ]	109.2%			
NEIFOSAA	(584.0 / 419.0) 52646 (584.0 / 526.0) 26638	(9.68, 1.00) (0.00, N/A, -0.1)	1519.9 109.5	0.5060 65.7 65.7	0.9761 [ 1.0000 ]	97.6%			
NMeFOSE	(616.1 / 59.0) 113948	(10.57, 1.00) (0.01, N/A, 0.0)	625.5	N/A 0.0 0.0	3.5172 [ 4.0000 ]	87.9%			
NEtFOSE	(630.0 / 59.0) 32510	(10.67, 1.00) (0.01, N/A, 0.0)	588.6	N/A 0.0 0.0	3.8660 [ 4.0000 ]	96.7%			
HFPO-DA	(285.0 / 169.0) 99125 (285.0 / 185.0) 320849	(6.51, 1.00) (0.00, N/A, -0.1)	651.9 732.3	3.2368 126.9 126.9	1.7889 [ 2.0000 ]	89.4%			
ADONA	(377.0 / 85.0) 483577 (377.0 / 251.0) 55664	(7.40, 1.14) (N/A, -0.01, 0.1)	839.4 223.8	0.1151 91.8 91.8	2.1052 [ 1.8854 ]	111.7%			
9CI-Pf3ONS	(531.0 / 351.0) 1367263 (533.0 / 353.0) 421697	(9.71, 1.49) (N/A, -0.01, -0.1)	931.3 551.8	0.3084 97.4 97.4	2.0990 [ 1.8665 ]	112.5%			
11CI-PF3OUDS	(631.0 / 451.0) 898698 (633.0 / 453.0) 262872	(10.00, 1.54) (N/A, -0.01, -0.1)	624.7 881.0	0.2925 100.0 100.0	2.0937 [ 1.8864 ]	111.0%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 14022 (241.0 / 117.0) 25990	(4.51, 0.90) (N/A, 0.01, 0.0)	451.2 359.3	1.8536 0.1 112.0	3.4734 [4.0000]	86.8%			IR1,
5:3FTCA	(341.0 / 236.7) 118339 (341.0 / 217.0) 191184	(6.79, 1.10) (N/A, -0.01, 0.0)	382.5 454.3	1.6156 102.3 102.3	4.0994 [4.0000]	102.5%			
7:3FTCA	(441.0 / 317.0) 125135 (441.0 / 337.0) 105902	(8.60, 1.40) (N/A, -0.02, 0.3)	251.8 289.5	0.8463 104.1 104.1	3.8411 [4.0000]	96.0%			
PFEESA	(315.0 / 135.0) 252682 (315.0 / 83.0) 67297	(6.62, 1.07) (N/A, 0.00, 0.2)	931.2 358.6	0.2663 94.2 94.2	1.7356 [1.7849]	97.2%			
PFMPA	(229.0 / 85.0) 50570	(4.23, 0.84) (N/A, 0.02, 0.0)	866.7	N/A 0.0 0.0	1.9906 [2.0000]	99.5%			
PFMBA	(279.0 / 85.0) 157043	(5.41, 1.08) (N/A, 0.01, 0.0)	856.4	N/A 0.0 0.0	1.8937 [2.0000]	94.7%			
NFDHA	(201.0 / 85.0) 5618 (295.0 / 201.0) 38932	(6.04, 0.98) (N/A, 0.00, 0.1)	240.1 546.2	6.9300 0.9 84.1	1.8955 [2.0000]	94.8%			IR1,
13C3_PFBA_IIS	(216.0 / 172.0) 85249	(3.73, N/A) (N/A, 0.02, N/A)	718.2	N/A	0.9751 [1.0000]	97.5% {92.4%}			
13C2_PFHxA_IIS	(315.1 / 270.0) 121139	(6.16, N/A) (N/A, 0.00, N/A)	475.7	N/A	0.9207 [1.0000]	92.1% {96.3%}			
13C4_PFOA_IIS	(417.0 / 372.0) 116431	(7.89, N/A) (N/A, -0.01, N/A)	611.0	N/A	0.9302 [1.0000]	93.0% {91.5%}			
13C5_PFNA_IIS	(468.0 / 423.0) 102082	(8.64, N/A) (N/A, 0.00, N/A)	325.5	N/A	1.0227 [1.0000]	102.3% {92.9%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 115476	(9.31, N/A) (N/A, -0.02, N/A)	752.6	N/A	1.1135 [ 1.0000 ]	111.4% { 117.5% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 226839	(8.02, N/A) (N/A, -0.02, N/A)	640.6	N/A	0.9588 [ 1.0000 ]	95.9% { 89.7% }			
13C4_PFOS_IIS	(502.8 / 79.9) 199105	(9.46, N/A) (N/A, -0.02, N/A)	383.4	N/A	0.9924 [ 1.0000 ]	99.2% { 90.2% }			
13C4_PFBA_EIS	(217.0 / 172.0) 787664	(3.73, N/A) (N/A, 0.02, N/A)	1068.8	N/A	8.9243 [ 8.0000 ]	111.6% { 108.6% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 415840	(5.03, N/A) (N/A, 0.01, N/A)	778.2	N/A	4.6627 [ 4.0000 ]	116.6% { 110.2% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 312517	(6.16, N/A) (N/A, 0.00, N/A)	753.4	N/A	2.1915 [ 2.0000 ]	109.6% { 103.1% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 275072	(7.09, N/A) (N/A, -0.01, N/A)	569.2	N/A	2.1833 [ 2.0000 ]	109.2% { 100.4% }			
13C8_PFOA_EIS	(421.0 / 376.0) 283507	(7.89, N/A) (N/A, -0.02, N/A)	571.7	N/A	2.2036 [ 2.0000 ]	110.2% { 111.9% }			
13C9_PFNA_EIS	(472.0 / 427.0) 115267	(8.63, N/A) (N/A, -0.02, N/A)	561.3	N/A	1.0337 [ 1.0000 ]	103.4% { 110.3% }			
13C6_PFDA_EIS	(519.0 / 474.0) 141096	(9.31, N/A) (N/A, -0.02, N/A)	339.0	N/A	0.9017 [ 1.0000 ]	90.2% { 98.9% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 210664	(9.71, N/A) (N/A, -0.01, N/A)	592.2	N/A	0.9350 [ 1.0000 ]	93.5% { 112.6% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 248859	(9.89, N/A) (N/A, -0.01, N/A)	452.6	N/A	0.9794 [ 1.0000 ]	97.9% { 115.4% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 131568	(10.12, N/A) (N/A, -0.01, N/A)	423.9	N/A	0.8520 [ 1.0000 ]	85.2% { 108.8% }			
13C3_PFBs_EIS	(302.0 / 80.0) 817623	(6.12, N/A) (N/A, 0.00, N/A)	1067.7	N/A	2.2070 [ 2.0000 ]	110.3% { 107.7% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 431333	(8.02, N/A) (N/A, -0.02, N/A)	917.9	N/A	2.2450 [ 2.0000 ]	112.3% { 111.9% }			
13C8_PFOS_EIS	(507.0 / 80.0) 666528	(9.46, N/A) (N/A, -0.01, N/A)	608.3	N/A	2.0379 [ 2.0000 ]	101.9% { 99.7% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 74678	(5.83, N/A) (N/A, 0.01, N/A)	502.0	N/A	3.5748 [ 4.0000 ]	89.4% { 84.7% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 107578	(7.55, N/A) (N/A, -0.01, N/A)	664.0	N/A	4.0184 [ 4.0000 ]	100.5% { 100.7% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 87292	(8.96, N/A) (N/A, -0.03, N/A)	319.9	N/A	3.6370 [ 4.0000 ]	90.9% { 92.4% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 1041124	(10.17, N/A) (N/A, -0.01, N/A)	1023.0	N/A	2.1873 [ 2.0000 ]	109.4% { 107.0% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 244043	(10.60, N/A) (N/A, -0.01, N/A)	622.0	N/A	2.0580 [ 2.0000 ]	102.9% { 101.7% }			
D5_NeIFOSA_EIS	(531.1 / 169.0) 238745	(10.69, N/A) (N/A, -0.01, N/A)	1061.6	N/A	2.1561 [ 2.0000 ]	107.8% { 103.8% }			

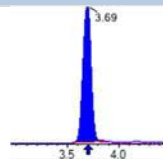
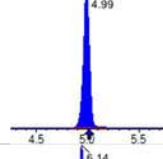
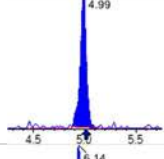
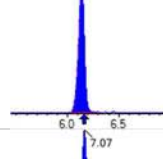
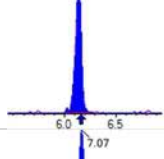
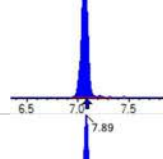
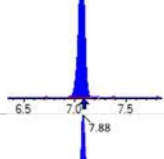
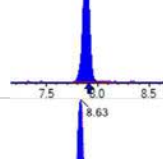
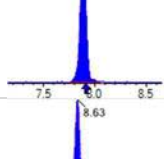
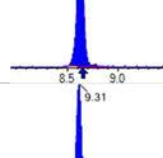
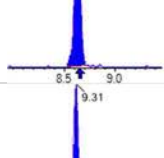
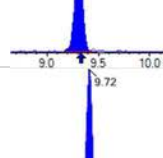
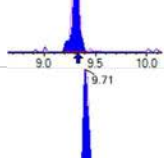
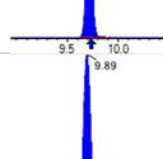
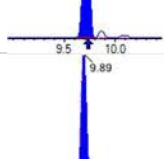
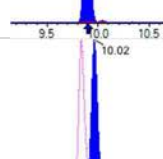
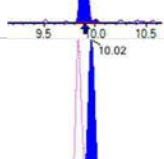
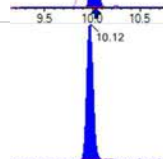
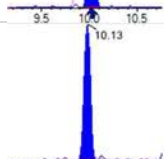

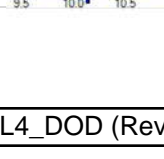


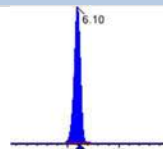
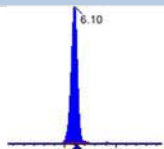
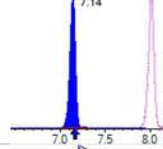
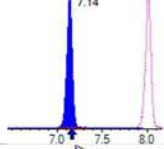
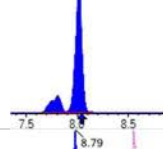
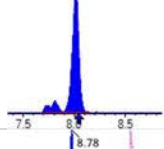
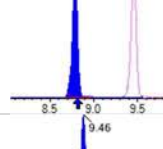
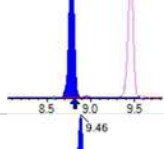
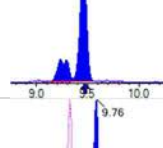
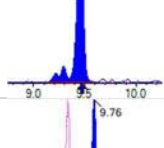
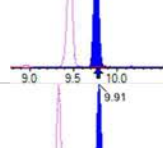
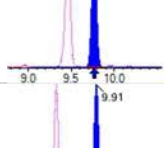
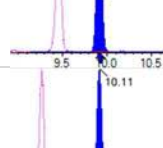
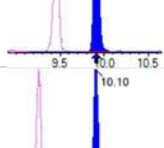
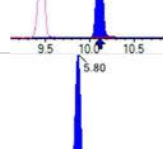
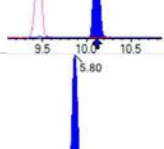
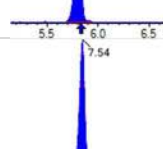
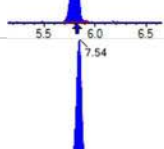
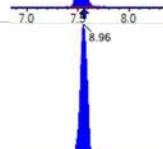
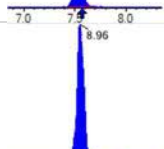

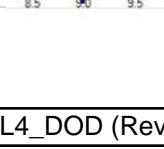
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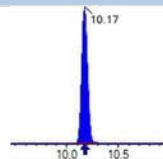
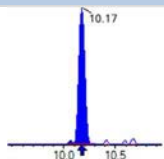
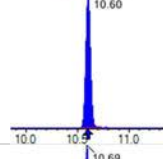
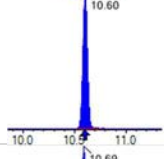
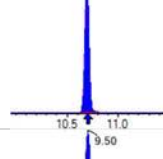
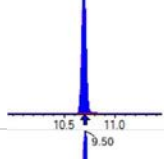
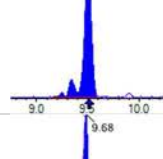
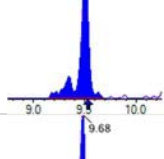
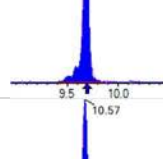
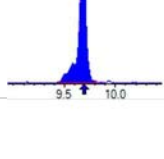
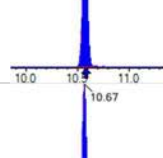
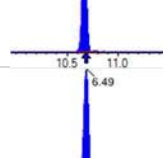
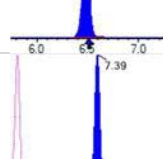
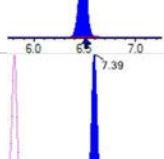
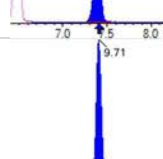
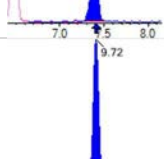
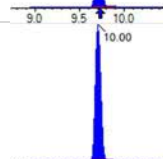
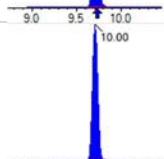

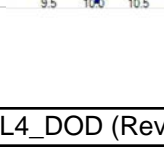
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 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - 2022-12-15A  
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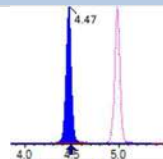
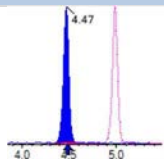
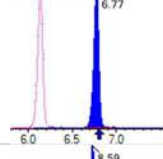
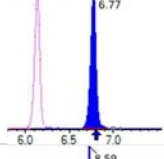
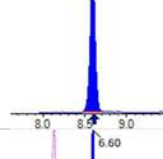
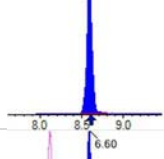
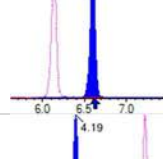
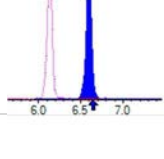
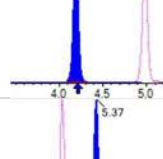
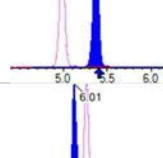
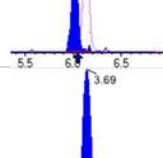
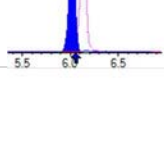
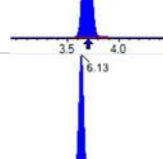
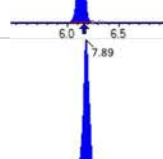
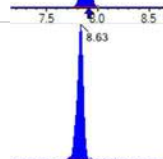

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	( 573.0 / 419.0 ) 269684	( 9.50, N/A ) ( N/A, -0.02, N/A )	363.7	N/A	3.5151 [ 4.0000 ]	87.9% { 94.6% }			
D5_EtFOSAA_EIS	( 589.0 / 419.0 ) 239335	( 9.68, N/A ) ( N/A, -0.01, N/A )	309.9	N/A	3.7535 [ 4.0000 ]	93.8% { 93.4% }			
D7_NMeFOSE_EIS	( 623.2 / 58.9 ) 508851	( 10.56, N/A ) ( N/A, -0.01, N/A )	963.1	N/A	22.3081 [ 20.0000 ]	111.5% { 101.6% }			
D9_NEtFOSE_EIS	( 639.2 / 58.9 ) 263466	( 10.66, N/A ) ( N/A, -0.01, N/A )	1380.8	N/A	21.4493 [ 20.0000 ]	107.2% { 99.5% }			
13C3_HFPODA_EIS	( 287.0 / 169.0 ) 725465	( 6.51, N/A ) ( N/A, 0.00, N/A )	755.7	N/A	8.3555 [ 8.0000 ]	104.4% { 97.6% }			

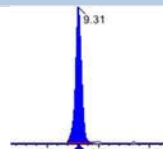
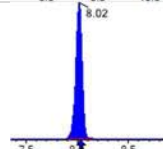
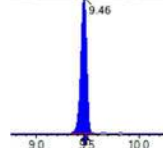
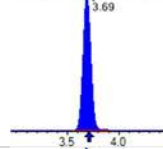
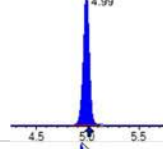
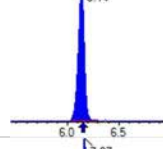
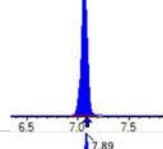
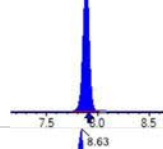
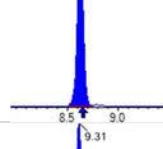
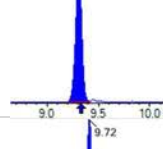
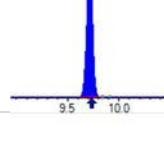
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 507523	(3.69, 1.00) (0.00, N/A, 0.0)	71.5	N/A 0.0 0.0	8.2406 [ 8.0000 ]	103.0%			
PFPeA	(262.9 / 219.0) 343558 (262.9 / 69.0) 3693	(4.99, 1.00) (0.00, N/A, 0.1)	804.9 115.5	0.0107 12593.6 105.2	4.0387 [ 4.0000 ]	101.0%			
PFHxA	(313.0 / 269.0) 280919 (313.0 / 119.0) 24927	(6.14, 1.00) (0.00, N/A, 0.0)	562.3 294.8	0.0887 90.5 90.5	1.9743 [ 2.0000 ]	98.7%			
PFHpA	(363.0 / 319.0) 253335 (363.0 / 169.0) 73465	(7.07, 1.00) (0.00, N/A, -0.1)	512.3 401.4	0.2900 92.8 92.8	2.0470 [ 2.0000 ]	102.3%			
PFOA	(413.0 / 369.0) 255405 (413.0 / 169.0) 83564	(7.89, 1.00) (0.00, N/A, 0.1)	466.1 436.2	0.3272 97.2 97.2	2.0090 [ 2.0000 ]	100.4%			
PFNA	(463.0 / 419.0) 182833 (463.0 / 169.0) 36188	(8.63, 1.00) (0.00, N/A, -0.1)	305.9 104.7	0.1979 98.6 98.6	1.9038 [ 2.0000 ]	95.2%			
PFDA	(513.0 / 469.0) 262475 (513.0 / 169.0) 22751	(9.31, 1.00) (0.00, N/A, -0.2)	305.0 165.9	0.0867 108.9 108.9	2.1573 [ 2.0000 ]	107.9%			
PFUnA	(563.0 / 519.0) 320880 (563.0 / 169.0) 29884	(9.72, 1.00) (0.00, N/A, 0.4)	603.0 154.2	0.0931 83.1 83.1	2.0656 [ 2.0000 ]	103.3%			
PFDoA	(613.0 / 569.0) 394907 (613.0 / 169.0) 50232	(9.89, 1.00) (0.01, N/A, 0.1)	479.7 183.1	0.1272 101.3 101.3	2.0156 [ 2.0000 ]	100.8%			
PFTrDA	(663.0 / 619.0) 312546 (663.0 / 169.0) 59075	(10.02, 1.01) (N/A, 0.00, -0.1)	585.1 268.1	0.1890 90.4 90.4	1.9330 [ 2.0000 ]	96.6%			
PFTeDA	(713.0 / 669.0) 263218 (713.0 / 169.0) 41014	(10.12, 1.00) (0.00, N/A, -0.3)	415.7 136.9	0.1558 68.6 68.6	1.7693 [ 2.0000 ]	88.5%			

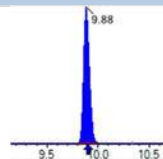
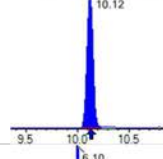
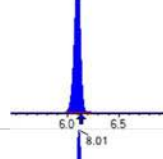
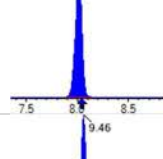
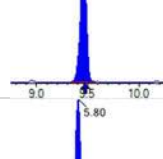
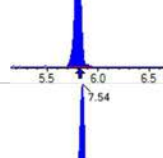
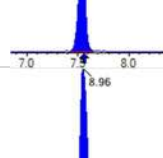
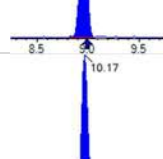
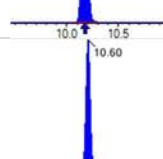
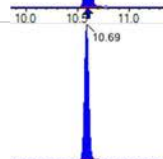

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	( 298.9 / 80.0 ) 387869 ( 298.9 / 99.0 ) 263941	( 6.10 , 1.00 ) ( 0.00 , N/A , 0.0 )	811.9 625.6	0.6805 100.1 100.1	1.9481 [ 1.7695 ]	110.1%			
PFPeS	( 349.0 / 80.0 ) 717526 ( 349.0 / 99.0 ) 241169	( 7.14 , 0.89 ) ( N/A , -0.02 , 0.0 )	883.8 587.6	0.3361 90.0 90.0	1.9665 [ 1.8768 ]	104.8%			
PFHxS	( 399.0 / 80.0 ) 606563 ( 399.0 / 99.0 ) 205320	( 8.01 , 1.00 ) ( 0.00 , N/A , 0.0 )	7059.3 9205.6	0.3385 98.7 98.7	1.9609 [ 1.8220 ]	107.6%			
PFHpS	( 449.0 / 80.0 ) 566099 ( 449.0 / 99.0 ) 161220	( 8.79 , 0.93 ) ( N/A , -0.02 , 0.4 )	565.5 563.4	0.2848 97.1 97.1	2.0631 [ 1.9028 ]	108.4%			
PFOS	( 499.0 / 80.0 ) 678992 ( 499.0 / 99.0 ) 143039	( 9.46 , 1.00 ) ( 0.00 , N/A , 0.0 )	120.4 100.0	0.2107 92.2 92.2	1.9959 [ 1.8550 ]	107.6%			
PFNS	( 549.0 / 80.0 ) 795749 ( 549.0 / 99.0 ) 200156	( 9.76 , 1.03 ) ( N/A , -0.01 , -0.1 )	480.9 569.0	0.2515 100.8 100.8	2.0342 [ 1.9198 ]	106.0%			
PFDS	( 599.0 / 80.0 ) 1013064 ( 599.0 / 99.0 ) 235031	( 9.91 , 1.05 ) ( N/A , -0.01 , 0.1 )	904.5 657.1	0.2320 91.0 91.0	2.0988 [ 1.9262 ]	109.0%			
PFDoS	( 698.9 / 80.0 ) 537827 ( 698.9 / 99.0 ) 125026	( 10.11 , 1.07 ) ( N/A , 0.00 , 0.3 )	831.2 437.1	0.2325 113.1 113.1	2.1346 [ 1.9391 ]	110.1%			
4:2FTS	( 327.0 / 307.0 ) 511163 ( 327.0 / 81.0 ) 282129	( 5.80 , 1.00 ) ( 0.00 , N/A , 0.1 )	911.2 701.5	0.5519 110.4 110.4	8.4974 [ 7.4762 ]	113.7%			
6:2FTS	( 427.0 / 407.0 ) 309051 ( 427.0 / 81.0 ) 217287	( 7.54 , 1.00 ) ( 0.00 , N/A , 0.1 )	857.9 771.9	0.7031 98.1 98.1	7.8502 [ 7.5923 ]	103.4%			
8:2FTS	( 527.0 / 507.0 ) 268464 ( 527.0 / 81.0 ) 150349	( 8.96 , 1.00 ) ( 0.00 , N/A , 0.3 )	351.0 377.4	0.5600 79.6 79.6	8.1579 [ 7.6663 ]	106.4%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 1043070 (498.0 / 478.0) 17408	(10.17, 1.00) (0.00, N/A, -0.2)	1089.6 213.3	0.0167 70.6 70.6	2.2171 [2.0000]	110.9%			
NMeFOSA	(511.9 / 219.0) 797988 (511.9 / 169.0) 561632	(10.60, 1.00) (0.00, N/A, 0.0)	1263.3 1318.1	0.7038 100.9 100.9	8.8872 [8.0000]	111.1%			
NEIFOSA	(526.0 / 219.0) 884913 (526.0 / 169.0) 915802	(10.69, 1.00) (0.00, N/A, 0.0)	1133.4 1280.9	1.0349 91.9 91.9	8.5402 [8.0000]	106.8%			
NMeFOSAA	(570.0 / 419.0) 114866 (570.0 / 483.0) 55837	(9.50, 1.00) (0.00, N/A, -0.2)	292.2 166.1	0.4861 103.5 103.5	2.2031 [2.0000]	110.2%			
NEIFOSAA	(584.0 / 419.0) 116426 (584.0 / 526.0) 77441	(9.68, 1.00) (0.00, N/A, 0.1)	768.2 364.2	0.6652 86.3 86.3	2.0164 [2.0000]	100.8%			
NMeFOSE	(616.1 / 59.0) 249979	(10.57, 1.00) (0.01, N/A, 0.0)	663.7	N/A 0.0 0.0	8.3254 [8.0000]	104.1%			
NEtFOSE	(630.0 / 59.0) 74529	(10.67, 1.00) (0.01, N/A, 0.0)	1235.3	N/A 0.0 0.0	8.9015 [8.0000]	111.3%			
HFPO-DA	(285.0 / 169.0) 240350 (285.0 / 185.0) 620940	(6.49, 1.00) (0.00, N/A, 0.2)	496.5 845.2	2.5835 101.3 101.3	4.1698 [4.0000]	104.2%			
ADONA	(377.0 / 85.0) 910558 (377.0 / 251.0) 114469	(7.39, 1.14) (N/A, -0.02, 0.1)	1009.9 310.9	0.1257 100.2 100.2	3.8107 [3.7708]	101.1%			
9CI-Pf3ONS	(531.0 / 351.0) 2453494 (533.0 / 353.0) 794217	(9.71, 1.50) (N/A, -0.01, -0.2)	748.6 840.4	0.3237 102.2 102.2	3.6207 [3.7330]	97.0%			
11CI-PF3OUDS	(631.0 / 451.0) 1531795 (633.0 / 453.0) 528327	(10.00, 1.54) (N/A, -0.01, 0.0)	780.6 921.4	0.3449 117.9 117.9	3.4306 [3.7728]	90.9%			



Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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) 32190 (241.0 / 117.0) 51962	(4.47, 0.90) (N/A, -0.02, -0.1)	598.7 480.7	1.6142 0.1 97.5	8.8229 [ 8.0000 ]	110.3%			IR1,
5:3FTCA	(341.0 / 236.7) 225487 (341.0 / 217.0) 362449	(6.77, 1.10) (N/A, -0.03, 0.0)	507.4 574.4	1.6074 101.7 101.7	7.7824 [ 8.0000 ]	97.3%			
7:3FTCA	(441.0 / 317.0) 245106 (441.0 / 337.0) 227732	(8.59, 1.40) (N/A, -0.02, 0.2)	452.6 367.7	0.9291 114.2 114.2	7.4960 [ 8.0000 ]	93.7%			
PFEESA	(315.0 / 135.0) 538330 (315.0 / 83.0) 160480	(6.60, 1.08) (N/A, -0.03, 0.0)	874.3 551.7	0.2981 105.5 105.5	3.6841 [ 3.5698 ]	103.2%			
PFMPA	(229.0 / 85.0) 100086	(4.19, 0.84) (N/A, -0.02, 0.0)	1269.5	N/A 0.0 0.0	4.3591 [ 4.0000 ]	109.0%			
PFMBA	(279.0 / 85.0) 312739	(5.37, 1.08) (N/A, -0.03, 0.0)	909.1	N/A 0.0 0.0	4.1725 [ 4.0000 ]	104.3%			
NFDHA	(201.0 / 85.0) 11598 (295.0 / 201.0) 84450	(6.01, 0.98) (N/A, -0.03, -0.4)	238.5 728.8	7.2812 0.9 88.4	4.0218 [ 4.0000 ]	100.5%			IR1,
13C3_PFBA_IIS	(216.0 / 172.0) 86775	(3.69, N/A) (N/A, -0.02, N/A)	815.1	N/A	0.9925 [ 1.0000 ]	99.3% { 94.0% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 140097	(6.13, N/A) (N/A, -0.03, N/A)	656.2	N/A	1.0648 [ 1.0000 ]	106.5% { 111.3% }			
13C4_PFOA_IIS	(417.0 / 372.0) 122142	(7.89, N/A) (N/A, -0.02, N/A)	729.6	N/A	0.9758 [ 1.0000 ]	97.6% { 96.0% }			
13C5_PFNA_IIS	(468.0 / 423.0) 89059	(8.63, N/A) (N/A, -0.01, N/A)	390.2	N/A	0.8922 [ 1.0000 ]	89.2% { 81.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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	(515.1 / 470.1) 99726	(9.31, N/A) (N/A, -0.02, N/A)	264.5	N/A	0.9616 [ 1.0000 ]	96.2% { 101.5% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 222942	(8.02, N/A) (N/A, -0.02, N/A)	840.3	N/A	0.9423 [ 1.0000 ]	94.2% { 88.2% }			
13C4_PFOS_IIS	(502.8 / 79.9) 173042	(9.46, N/A) (N/A, -0.01, N/A)	299.4	N/A	0.8625 [ 1.0000 ]	86.3% { 78.4% }			
13C4_PFBA_EIS	(217.0 / 172.0) 741836	(3.69, N/A) (N/A, -0.02, N/A)	828.2	N/A	8.2573 [ 8.0000 ]	103.2% { 102.3% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 375839	(4.99, N/A) (N/A, -0.03, N/A)	868.0	N/A	3.6439 [ 4.0000 ]	91.1% { 99.6% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 313669	(6.14, N/A) (N/A, -0.03, N/A)	658.5	N/A	1.9019 [ 2.0000 ]	95.1% { 103.5% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 274112	(7.07, N/A) (N/A, -0.03, N/A)	551.8	N/A	1.8812 [ 2.0000 ]	94.1% { 100.0% }			
13C8_PFOA_EIS	(421.0 / 376.0) 268268	(7.89, N/A) (N/A, -0.02, N/A)	585.3	N/A	1.9877 [ 2.0000 ]	99.4% { 105.9% }			
13C9_PFNA_EIS	(472.0 / 427.0) 113651	(8.63, N/A) (N/A, -0.02, N/A)	336.1	N/A	1.1683 [ 1.0000 ]	116.8% { 108.7% }			
13C6_PFDA_EIS	(519.0 / 474.0) 131969	(9.31, N/A) (N/A, -0.02, N/A)	329.5	N/A	0.9766 [ 1.0000 ]	97.7% { 92.5% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 208438	(9.72, N/A) (N/A, -0.01, N/A)	295.6	N/A	1.0713 [ 1.0000 ]	107.1% { 111.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 244597	(9.88, N/A) (N/A, -0.01, N/A)	439.4	N/A	1.1147 [ 1.0000 ]	111.5% { 113.4% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 155445	(10.12, N/A) (N/A, -0.01, N/A)	302.9	N/A	1.1656 [ 1.0000 ]	116.6% { 128.5% }			
13C3_PFBs_EIS	(302.0 / 80.0) 728982	(6.10, N/A) (N/A, -0.03, N/A)	970.8	N/A	2.0021 [ 2.0000 ]	100.1% { 96.0% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 389000	(8.01, N/A) (N/A, -0.02, N/A)	957.8	N/A	2.0601 [ 2.0000 ]	103.0% { 101.0% }			
13C8_PFOS_EIS	(507.0 / 80.0) 619035	(9.46, N/A) (N/A, -0.01, N/A)	449.9	N/A	2.1778 [ 2.0000 ]	108.9% { 92.6% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 75450	(5.80, N/A) (N/A, -0.02, N/A)	500.7	N/A	3.6749 [ 4.0000 ]	91.9% { 85.6% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 101990	(7.54, N/A) (N/A, -0.02, N/A)	527.7	N/A	3.8763 [ 4.0000 ]	96.9% { 95.5% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 89806	(8.96, N/A) (N/A, -0.03, N/A)	362.4	N/A	3.8072 [ 4.0000 ]	95.2% { 95.1% }			
13C8_PFOA_EIS	(506.0 / 78.0) 945362	(10.17, N/A) (N/A, -0.01, N/A)	944.6	N/A	2.2852 [ 2.0000 ]	114.3% { 97.2% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 225082	(10.60, N/A) (N/A, -0.01, N/A)	736.5	N/A	2.1840 [ 2.0000 ]	109.2% { 93.8% }			
D5_NeIFOSA_EIS	(531.1 / 169.0) 227254	(10.69, N/A) (N/A, -0.01, N/A)	1478.9	N/A	2.3614 [ 2.0000 ]	118.1% { 98.8% }			

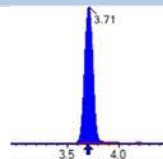
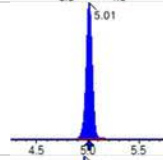
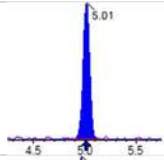
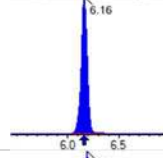
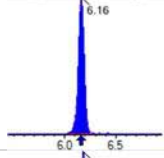
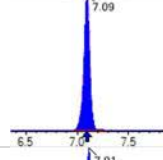
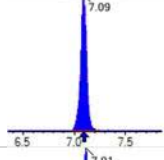
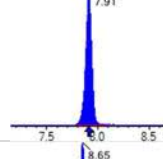
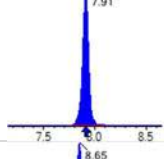
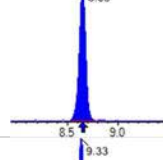
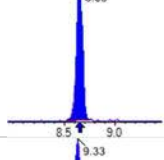
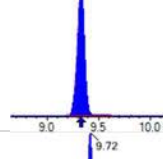
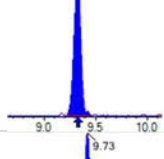
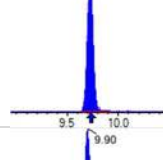
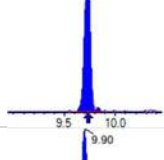
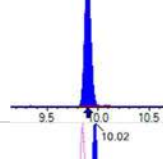
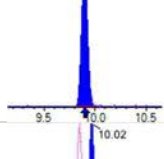
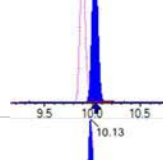
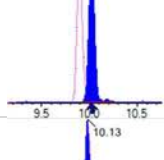
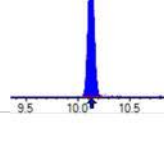
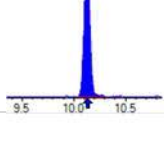


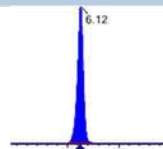
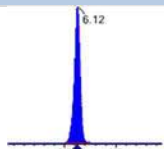
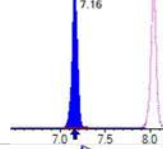
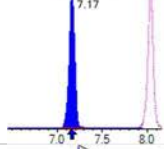
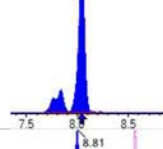
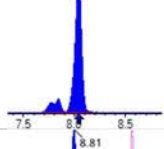
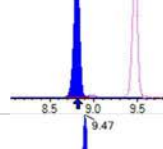
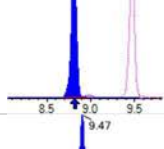
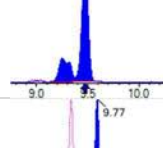
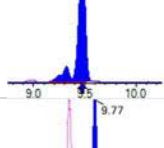
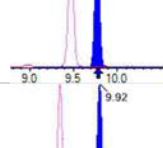
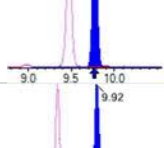
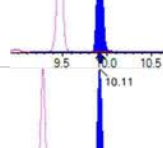
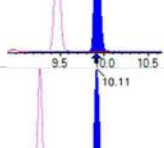
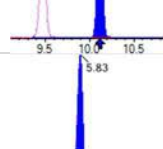
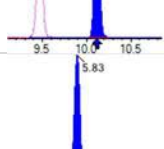
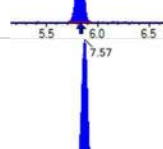
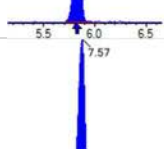
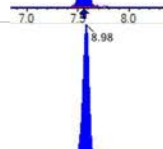
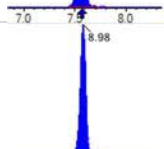

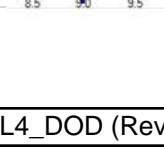
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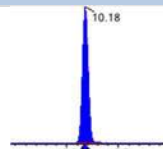
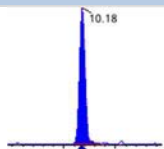
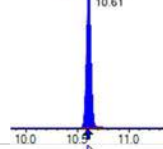
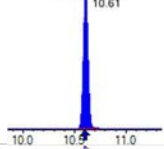
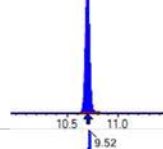
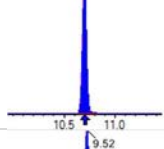
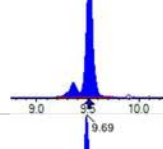
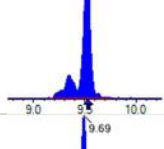
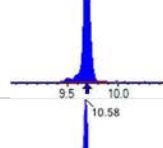
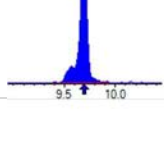
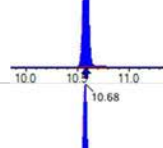
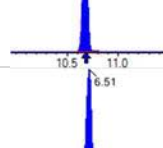
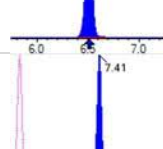
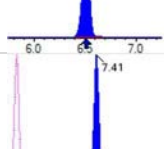
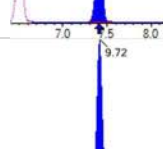
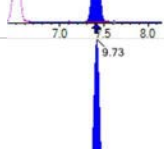
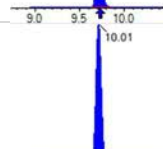
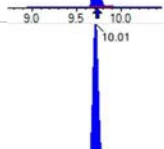

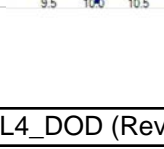
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 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

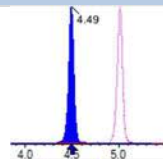
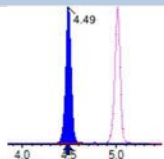
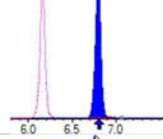
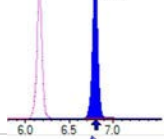
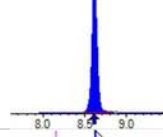
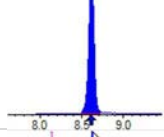
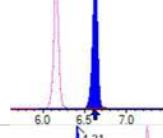
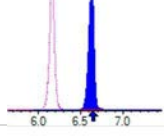
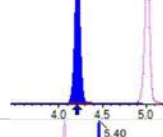
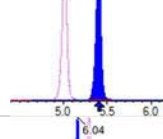
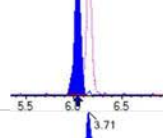
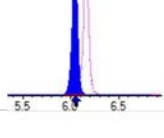
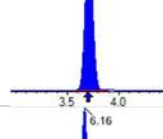
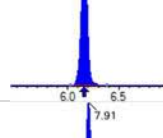
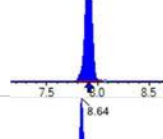
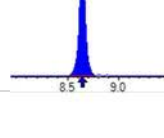
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 Path: S2022-12-15A (4)  
 Acquired: 2022/12/15 - 13:11

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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 ) 287769	( 9.50, N/A ) ( N/A, -0.02, N/A )	338.0	N/A	4.3157 [ 4.0000 ]	107.9% { 101.0% }			
D5_EtFOSAA_EIS	( 589.0 / 419.0 ) 256207	( 9.68, N/A ) ( N/A, -0.01, N/A )	368.0	N/A	4.6233 [ 4.0000 ]	115.6% { 100.0% }			
D7_NMeFOSE_EIS	( 623.2 / 58.9 ) 471611	( 10.57, N/A ) ( N/A, -0.01, N/A )	1398.0	N/A	23.7895 [ 20.0000 ]	118.9% { 94.2% }			
D9_NEtFOSE_EIS	( 639.2 / 58.9 ) 262321	( 10.67, N/A ) ( N/A, -0.01, N/A )	1277.6	N/A	24.5727 [ 20.0000 ]	122.9% { 99.0% }			
13C3_HFPODA_EIS	( 287.0 / 169.0 ) 754664	( 6.48, N/A ) ( N/A, -0.03, N/A )	889.9	N/A	7.5156 [ 8.0000 ]	93.9% { 101.5% }			

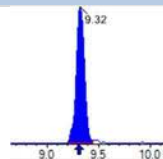
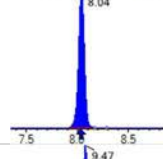
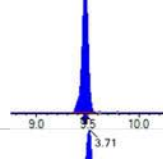
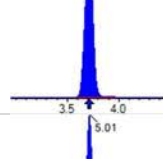
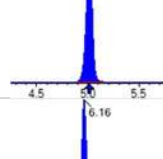
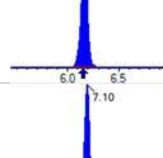
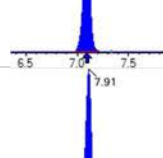
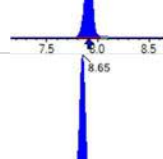
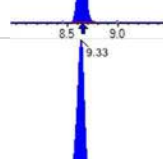
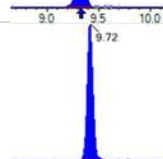

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 1230017	(3.71, 1.00) (0.00, N/A, 0.0)	72.4	N/A 0.0 0.0	20.4366 [ 20.0000 ]	102.2%			
PFPeA	(262.9 / 219.0) 888500 (262.9 / 69.0) 9078	(5.01, 1.00) (0.00, N/A, -0.1)	807.5 226.0	0.0102 11970.9 100.0	10.4010 [ 10.0000 ]	104.0%			
PFHxA	(313.0 / 269.0) 671202 (313.0 / 119.0) 65842	(6.16, 1.00) (0.00, N/A, 0.0)	708.2 575.7	0.0981 100.0 100.0	4.8818 [ 5.0000 ]	97.6%			
PFHpA	(363.0 / 319.0) 619830 (363.0 / 169.0) 193707	(7.09, 1.00) (0.00, N/A, 0.1)	753.7 757.4	0.3125 100.0 100.0	5.0084 [ 5.0000 ]	100.2%			
PFOA	(413.0 / 369.0) 641256 (413.0 / 169.0) 215954	(7.91, 1.00) (0.00, N/A, 0.1)	666.1 738.3	0.3368 100.0 100.0	5.3414 [ 5.0000 ]	106.8%			
PFNA	(463.0 / 419.0) 473767 (463.0 / 169.0) 95071	(8.65, 1.00) (0.00, N/A, 0.0)	529.3 105.2	0.2007 100.0 100.0	5.3632 [ 5.0000 ]	107.3%			
PFDA	(513.0 / 469.0) 657458 (513.0 / 169.0) 52315	(9.33, 1.00) (0.00, N/A, 0.4)	398.9 223.9	0.0796 100.0 100.0	5.0007 [ 5.0000 ]	100.0%			
PFUnA	(563.0 / 519.0) 753398 (563.0 / 169.0) 84389	(9.72, 1.00) (0.00, N/A, -0.2)	563.5 251.5	0.1120 100.0 100.0	5.4025 [ 5.0000 ]	108.1%			
PFDoA	(613.0 / 569.0) 891272 (613.0 / 169.0) 111939	(9.90, 1.00) (0.00, N/A, 0.1)	667.1 408.2	0.1256 100.0 100.0	5.1588 [ 5.0000 ]	103.2%			
PFTrDA	(663.0 / 619.0) 817708 (663.0 / 169.0) 170939	(10.02, 1.01) (N/A, 0.00, 0.1)	588.5 305.3	0.2090 100.0 100.0	5.7352 [ 5.0000 ]	114.7%			
PFTeDA	(713.0 / 669.0) 698601 (713.0 / 169.0) 158581	(10.13, 1.00) (0.00, N/A, 0.1)	833.0 446.7	0.2270 100.0 100.0	6.0353 [ 5.0000 ]	120.7%			

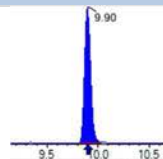
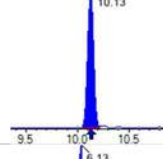
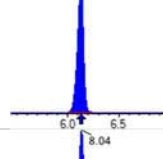
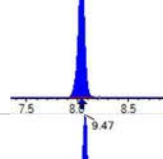
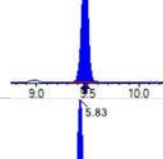
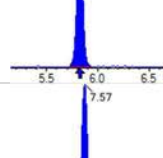
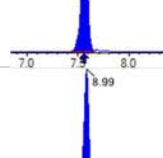
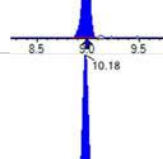
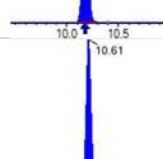
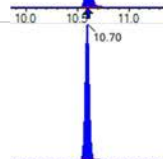

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	( 298.9 / 80.0 ) 931163 ( 298.9 / 99.0 ) 633248	( 6.12 , 1.00 ) ( 0.00 , N/A , 0.1 )	966.2 806.1	0.6801 100.0 100.0	4.4911 [ 4.4237 ]	101.5%			
PFPeS	( 349.0 / 80.0 ) 1750797 ( 349.0 / 99.0 ) 653718	( 7.16 , 0.89 ) ( N/A , 0.00 , -0.1 )	746.1 722.8	0.3734 100.0 100.0	4.8441 [ 4.6919 ]	103.2%			
PFHxS	( 399.0 / 80.0 ) 1394257 ( 399.0 / 99.0 ) 478003	( 8.04 , 1.00 ) ( 0.00 , N/A , 0.1 )	6526.9 5562.7	0.3428 100.0 100.0	4.5505 [ 4.5549 ]	99.9%			
PFHpS	( 449.0 / 80.0 ) 1242809 ( 449.0 / 99.0 ) 364660	( 8.81 , 0.93 ) ( N/A , 0.00 , 0.0 )	476.6 605.7	0.2934 100.0 100.0	4.1959 [ 4.7570 ]	88.2%			
PFOS	( 499.0 / 80.0 ) 1656633 ( 499.0 / 99.0 ) 378656	( 9.47 , 1.00 ) ( 0.00 , N/A , 0.0 )	122.2 155.3	0.2286 100.0 100.0	4.5114 [ 4.6375 ]	97.3%			
PFNS	( 549.0 / 80.0 ) 2040483 ( 549.0 / 99.0 ) 509199	( 9.77 , 1.03 ) ( N/A , 0.00 , 0.0 )	609.0 966.1	0.2495 100.0 100.0	4.8324 [ 4.7994 ]	100.7%			
PFDS	( 599.0 / 80.0 ) 2546429 ( 599.0 / 99.0 ) 649153	( 9.92 , 1.05 ) ( N/A , 0.00 , 0.0 )	1194.6 872.7	0.2549 100.0 100.0	4.8872 [ 4.8155 ]	101.5%			
PFDoS	( 698.9 / 80.0 ) 1369518 ( 698.9 / 99.0 ) 281386	( 10.11 , 1.07 ) ( N/A , 0.00 , -0.1 )	1084.6 664.5	0.2055 100.0 100.0	5.0355 [ 4.8478 ]	103.9%			
4:2FTS	( 327.0 / 307.0 ) 1264897 ( 327.0 / 81.0 ) 632375	( 5.83 , 1.00 ) ( 0.00 , N/A , 0.0 )	876.8 759.5	0.4999 100.0 100.0	17.9914 [ 18.6906 ]	96.3%			
6:2FTS	( 427.0 / 407.0 ) 786270 ( 427.0 / 81.0 ) 563284	( 7.57 , 1.00 ) ( 0.00 , N/A , -0.1 )	750.0 820.9	0.7164 100.0 100.0	19.0686 [ 18.9808 ]	100.5%			
8:2FTS	( 527.0 / 507.0 ) 674253 ( 527.0 / 81.0 ) 474343	( 8.98 , 1.00 ) ( 0.00 , N/A , 0.1 )	546.0 566.0	0.7035 100.0 100.0	19.4791 [ 19.1658 ]	101.6%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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 ) 2386396 ( 498.0 / 478.0 ) 56409	( 10.18 , 1.00 ) ( 0.00 , N/A , 0.1 )	745.6 325.2	0.0236 100.0 100.0	4.9289 [ 5.0000 ]	98.6%			
NMeFOSA	( 511.9 / 219.0 ) 2030396 ( 511.9 / 169.0 ) 1415713	( 10.61 , 1.00 ) ( 0.00 , N/A , 0.0 )	863.0 1298.1	0.6973 100.0 100.0	21.2085 [ 20.0000 ]	106.0%			
NEIFOSA	( 526.0 / 219.0 ) 2078903 ( 526.0 / 169.0 ) 2341467	( 10.70 , 1.00 ) ( 0.00 , N/A , 0.0 )	1496.6 1573.2	1.1263 100.0 100.0	19.8229 [ 20.0000 ]	99.1%			
NMeFOSAA	( 570.0 / 419.0 ) 267573 ( 570.0 / 483.0 ) 125681	( 9.52 , 1.00 ) ( 0.00 , N/A , -0.2 )	425.4 384.0	0.4697 100.0 100.0	5.1828 [ 5.0000 ]	103.7%			
NEIFOSAA	( 584.0 / 419.0 ) 251609 ( 584.0 / 526.0 ) 193821	( 9.69 , 1.00 ) ( 0.00 , N/A , 0.0 )	687.0 16407.9	0.7703 100.0 100.0	4.3585 [ 5.0000 ]	87.2%			
NMeFOSE	( 616.1 / 59.0 ) 626728	( 10.58 , 1.00 ) ( 0.01 , N/A , 0.0 )	1110.5	N/A 0.0 0.0	19.6539 [ 20.0000 ]	98.3%			
NEtFOSE	( 630.0 / 59.0 ) 162411	( 10.68 , 1.00 ) ( 0.01 , N/A , 0.0 )	635.4	N/A 0.0 0.0	19.2101 [ 20.0000 ]	96.1%			
HFPO-DA	( 285.0 / 169.0 ) 615685 ( 285.0 / 185.0 ) 1570527	( 6.51 , 1.00 ) ( 0.00 , N/A , 0.0 )	848.4 784.5	2.5509 100.0 100.0	10.8409 [ 10.0000 ]	108.4%			
ADONA	( 377.0 / 85.0 ) 2368722 ( 377.0 / 251.0 ) 297052	( 7.41 , 1.14 ) ( N/A , 0.00 , -0.1 )	872.6 630.6	0.1254 100.0 100.0	10.0610 [ 9.4270 ]	106.7%			
9CI-Pf3ONS	( 531.0 / 351.0 ) 6344280 ( 533.0 / 353.0 ) 2009503	( 9.72 , 1.49 ) ( N/A , 0.00 , -0.2 )	673.9 735.2	0.3167 100.0 100.0	9.5023 [ 9.3325 ]	101.8%			
11CI-PF3OUDS	( 631.0 / 451.0 ) 4558447 ( 633.0 / 453.0 ) 1333674	( 10.01 , 1.54 ) ( N/A , 0.00 , 0.0 )	897.7 615.8	0.2926 100.0 100.0	10.3614 [ 9.4321 ]	109.9%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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) 76488 (241.0 / 117.0) 126603	(4.49, 0.90) (N/A, 0.00, 0.1)	595.3 737.4	1.6552 0.1 100.0	20.8762 [ 20.0000 ]	104.4%			IR1,
5:3FTCA	(341.0 / 236.7) 567673 (341.0 / 217.0) 896894	(6.80, 1.10) (N/A, 0.00, 0.0)	641.6 611.0	1.5799 100.0 100.0	20.2763 [ 20.0000 ]	101.4%			
7:3FTCA	(441.0 / 317.0) 640142 (441.0 / 337.0) 520585	(8.61, 1.40) (N/A, 0.00, 0.0)	508.9 519.5	0.8132 100.0 100.0	20.2604 [ 20.0000 ]	101.3%			
PFEESA	(315.0 / 135.0) 1272818 (315.0 / 83.0) 359740	(6.63, 1.08) (N/A, 0.00, -0.1)	792.9 757.0	0.2826 100.0 100.0	9.0145 [ 8.9246 ]	101.0%			
PFMPA	(229.0 / 85.0) 233654	(4.21, 0.84) (N/A, 0.00, 0.0)	963.4	N/A 0.0 0.0	10.1338 [ 10.0000 ]	101.3%			
PFMBA	(279.0 / 85.0) 752713	(5.40, 1.08) (N/A, 0.00, 0.0)	1153.2	N/A 0.0 0.0	10.0005 [ 10.0000 ]	100.0%			
NFDHA	(201.0 / 85.0) 25433 (295.0 / 201.0) 209572	(6.04, 0.98) (N/A, 0.00, -0.3)	326.6 675.8	8.2401 1.0 100.0	9.2745 [ 10.0000 ]	92.7%			IR1,
13C3_PFBA_IIS	(216.0 / 172.0) 92277	(3.71, N/A) (N/A, 0.00, N/A)	689.1	N/A	1.0554 [ 1.0000 ]	105.5% { 100.0% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 125835	(6.16, N/A) (N/A, 0.00, N/A)	505.5	N/A	0.9564 [ 1.0000 ]	95.6% { 100.0% }			
13C4_PFOA_IIS	(417.0 / 372.0) 127226	(7.91, N/A) (N/A, 0.00, N/A)	620.2	N/A	1.0164 [ 1.0000 ]	101.6% { 100.0% }			
13C5_PFNA_IIS	(468.0 / 423.0) 109934	(8.64, N/A) (N/A, 0.00, N/A)	325.6	N/A	1.1013 [ 1.0000 ]	110.1% { 100.0% }			



Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[min], $\Delta$ RT-CV[min], $\Delta$ 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	(515.1 / 470.1) 98265	(9.32, N/A) (N/A, 0.00, N/A)	259.4	N/A	0.9476 [ 1.0000 ]	94.8% { 100.0% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 252897	(8.04, N/A) (N/A, 0.00, N/A)	712.4	N/A	1.0690 [ 1.0000 ]	106.9% { 100.0% }			
13C4_PFOS_IIS	(502.8 / 79.9) 220792	(9.47, N/A) (N/A, 0.00, N/A)	458.4	N/A	1.1005 [ 1.0000 ]	110.1% { 100.0% }			
13C4_PFBA_EIS	(217.0 / 172.0) 724958	(3.71, N/A) (N/A, 0.00, N/A)	802.1	N/A	7.5883 [ 8.0000 ]	94.9% { 100.0% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 377420	(5.01, N/A) (N/A, 0.00, N/A)	894.5	N/A	4.0740 [ 4.0000 ]	101.8% { 100.0% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 303094	(6.16, N/A) (N/A, 0.00, N/A)	769.8	N/A	2.0461 [ 2.0000 ]	102.3% { 100.0% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 274111	(7.10, N/A) (N/A, 0.00, N/A)	732.2	N/A	2.0945 [ 2.0000 ]	104.7% { 100.0% }			
13C8_PFOA_EIS	(421.0 / 376.0) 253333	(7.91, N/A) (N/A, 0.00, N/A)	487.6	N/A	1.8020 [ 2.0000 ]	90.1% { 100.0% }			
13C9_PFNA_EIS	(472.0 / 427.0) 104539	(8.65, N/A) (N/A, 0.00, N/A)	398.6	N/A	0.8706 [ 1.0000 ]	87.1% { 100.0% }			
13C6_PFDA_EIS	(519.0 / 474.0) 142605	(9.33, N/A) (N/A, 0.00, N/A)	368.5	N/A	1.0710 [ 1.0000 ]	107.1% { 100.0% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 187115	(9.72, N/A) (N/A, 0.00, N/A)	305.1	N/A	0.9760 [ 1.0000 ]	97.6% { 100.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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) 215682	(9.90, N/A) (N/A, 0.00, N/A)	633.3	N/A	0.9975 [ 1.0000 ]	99.8% { 100.0% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 120947	(10.13, N/A) (N/A, 0.00, N/A)	334.0	N/A	0.9204 [ 1.0000 ]	92.0% { 100.0% }			
13C3_PFBs_EIS	(302.0 / 80.0) 759125	(6.13, N/A) (N/A, 0.00, N/A)	720.9	N/A	1.8379 [ 2.0000 ]	91.9% { 100.0% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 385319	(8.04, N/A) (N/A, 0.00, N/A)	816.0	N/A	1.7989 [ 2.0000 ]	89.9% { 100.0% }			
13C8_PFOS_EIS	(507.0 / 80.0) 668208	(9.47, N/A) (N/A, 0.00, N/A)	316.9	N/A	1.8424 [ 2.0000 ]	92.1% { 100.0% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 88181	(5.83, N/A) (N/A, 0.00, N/A)	514.3	N/A	3.7862 [ 4.0000 ]	94.7% { 100.0% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 106822	(7.57, N/A) (N/A, 0.00, N/A)	555.3	N/A	3.5790 [ 4.0000 ]	89.5% { 100.0% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 94461	(8.99, N/A) (N/A, 0.00, N/A)	419.1	N/A	3.5302 [ 4.0000 ]	88.3% { 100.0% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 972879	(10.18, N/A) (N/A, 0.00, N/A)	741.4	N/A	1.8431 [ 2.0000 ]	92.2% { 100.0% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 239983	(10.61, N/A) (N/A, 0.00, N/A)	1007.5	N/A	1.8250 [ 2.0000 ]	91.2% { 100.0% }			
D5_NeIFOSA_EIS	(531.1 / 169.0) 230010	(10.70, N/A) (N/A, 0.00, N/A)	1302.1	N/A	1.8732 [ 2.0000 ]	93.7% { 100.0% }			

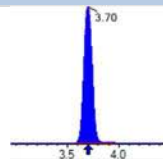
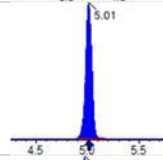
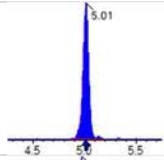
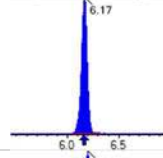
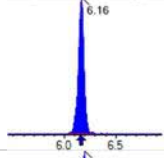
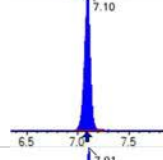
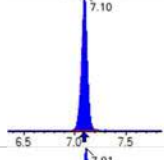
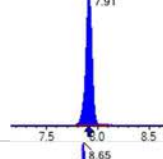
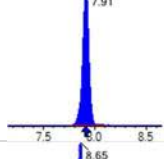
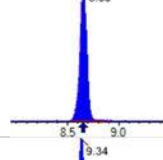
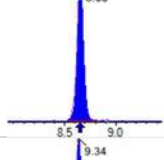
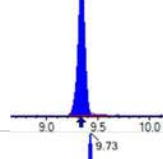
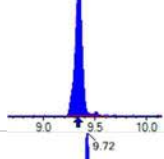
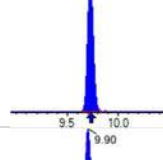
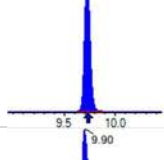
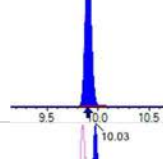
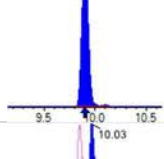
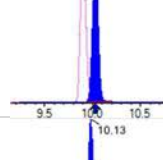
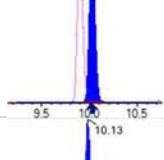
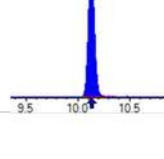
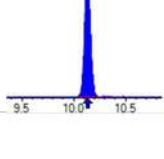


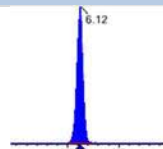
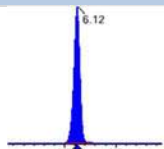
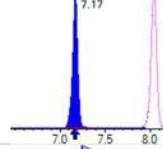
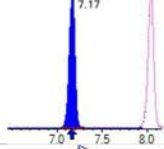
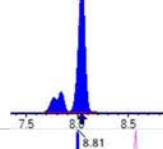
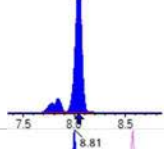
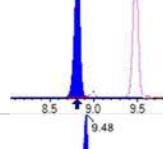
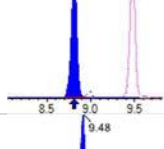
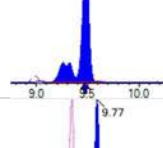
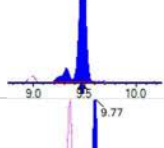
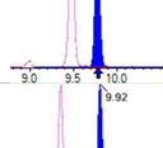
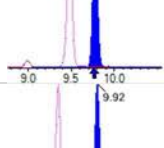
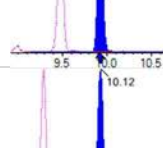
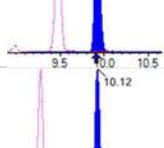
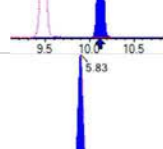
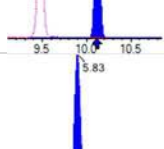
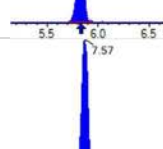
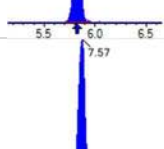
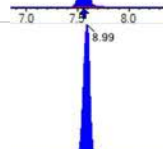
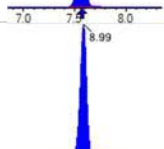

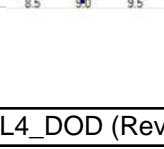
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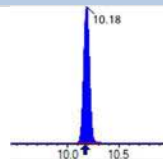
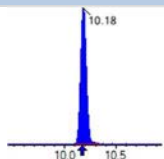
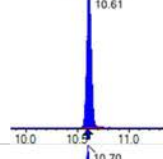
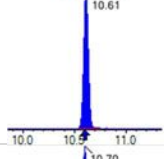
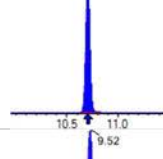
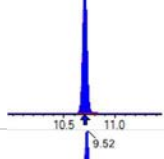
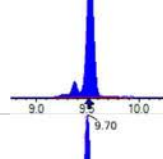
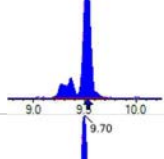
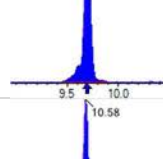
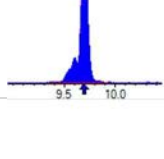
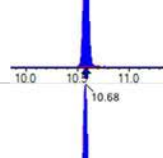
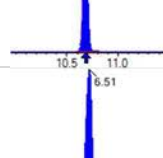
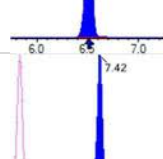
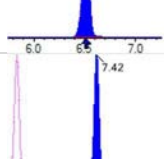
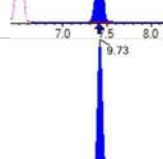
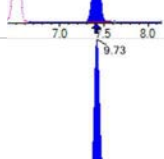
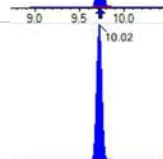
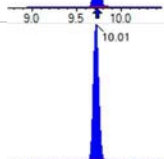

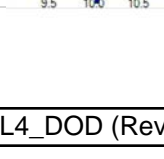
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 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

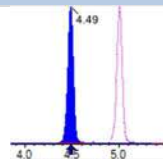
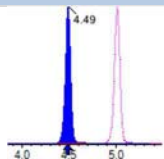
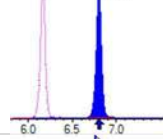
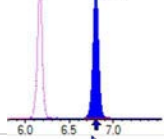
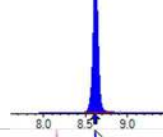
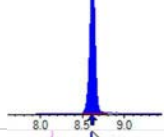
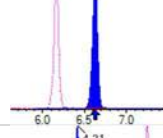
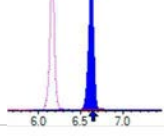
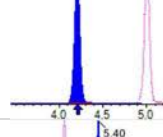
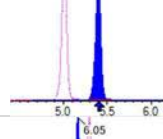
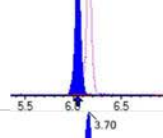
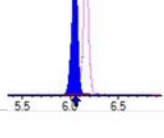
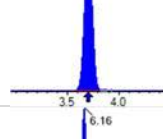
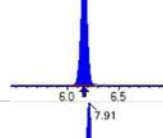
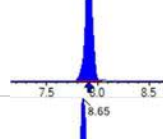
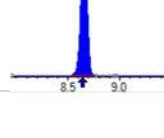
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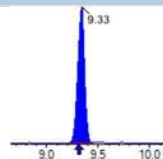
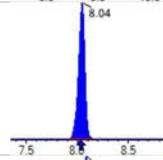
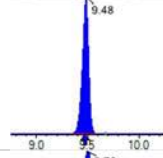
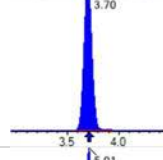
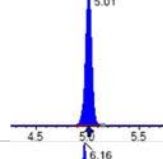
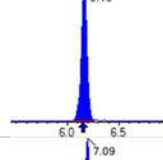
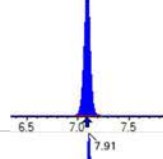
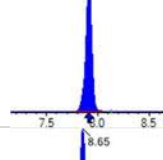
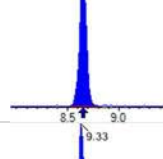
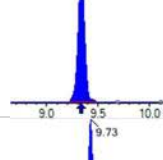
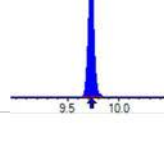
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
D3_MeFOSAA_EIS	( 573.0 / 419.0 ) 284942	( 9.52, N/A ) ( N/A, 0.00, N/A )	266.4	N/A	3.3492 [ 4.0000 ]	83.7% { 100.0% }			
D5_EtFOSAA_EIS	( 589.0 / 419.0 ) 256164	( 9.69, N/A ) ( N/A, 0.00, N/A )	410.2	N/A	3.6229 [ 4.0000 ]	90.6% { 100.0% }			
D7_NMeFOSE_EIS	( 623.2 / 58.9 ) 500857	( 10.58, N/A ) ( N/A, 0.00, N/A )	945.2	N/A	19.8009 [ 20.0000 ]	99.0% { 100.0% }			
D9_NEtFOSE_EIS	( 639.2 / 58.9 ) 264883	( 10.67, N/A ) ( N/A, 0.00, N/A )	948.4	N/A	19.4465 [ 20.0000 ]	97.2% { 100.0% }			
13C3_HFPODA_EIS	( 287.0 / 169.0 ) 743568	( 6.51, N/A ) ( N/A, 0.00, N/A )	960.8	N/A	8.2443 [ 8.0000 ]	103.1% { 100.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(212.9 / 169.0) 2473553	(3.70, 1.00) (0.00, N/A, 0.0)	63.3	N/A 0.0 0.0	41.7905 [ 40.0000 ]	104.5%			
PFPeA	(262.9 / 219.0) 1826970 (262.9 / 69.0) 20972	(5.01, 1.00) (0.00, N/A, -0.2)	787.5 517.2	0.0115 13449.8 112.4	20.6581 [ 20.0000 ]	103.3%			
PFHxA	(313.0 / 269.0) 1400727 (313.0 / 119.0) 130525	(6.17, 1.00) (0.00, N/A, 0.1)	793.7 542.8	0.0932 95.0 95.0	9.8261 [ 10.0000 ]	98.3%			
PFHpA	(363.0 / 319.0) 1381598 (363.0 / 169.0) 387158	(7.10, 1.00) (0.00, N/A, 0.0)	739.5 758.5	0.2802 89.7 89.7	11.3557 [ 10.0000 ]	113.6%			
PFOA	(413.0 / 369.0) 1279298 (413.0 / 169.0) 408618	(7.91, 1.00) (0.00, N/A, 0.1)	680.7 708.8	0.3194 94.8 94.8	9.7211 [ 10.0000 ]	97.2%			
PFNA	(463.0 / 419.0) 950315 (463.0 / 169.0) 220614	(8.65, 1.00) (0.00, N/A, 0.0)	574.5 145.9	0.2321 115.7 115.7	10.2092 [ 10.0000 ]	102.1%			
PFDA	(513.0 / 469.0) 1303580 (513.0 / 169.0) 128952	(9.34, 1.00) (0.00, N/A, -0.1)	472.4 297.2	0.0989 124.3 124.3	10.6710 [ 10.0000 ]	106.7%			
PFUnA	(563.0 / 519.0) 1478554 (563.0 / 169.0) 137019	(9.73, 1.00) (0.00, N/A, 0.1)	692.9 1538.6	0.0927 82.7 82.7	10.1484 [ 10.0000 ]	101.5%			
PFDoA	(613.0 / 569.0) 1967099 (613.0 / 169.0) 259105	(9.90, 1.00) (0.00, N/A, 0.2)	1601.9 513.2	0.1317 104.9 104.9	10.5665 [ 10.0000 ]	105.7%			
PFTrDA	(663.0 / 619.0) 1795477 (663.0 / 169.0) 330817	(10.03, 1.01) (N/A, 0.01, 0.2)	1258.5 509.4	0.1843 88.1 88.1	11.6868 [ 10.0000 ]	116.9%			
PFTeDA	(713.0 / 669.0) 1445140 (713.0 / 169.0) 246046	(10.13, 1.00) (0.00, N/A, -0.1)	682.6 556.2	0.1703 75.0 75.0	8.8128 [ 10.0000 ]	88.1%			

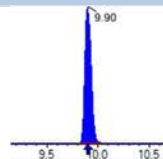
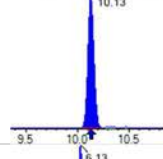
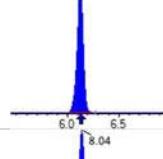
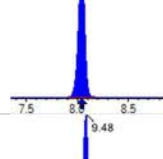
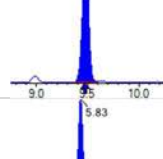
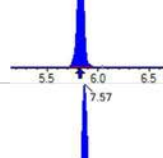
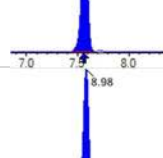
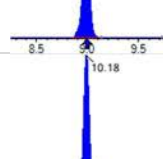
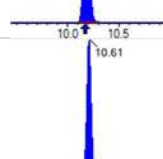
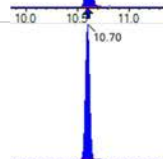

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 1957666 (298.9 / 99.0) 1215189	(6.12, 1.00) (0.00, N/A, -0.1)	1141.5 761.2	0.6207 91.3 91.3	8.9834 [ 8.8473 ]	101.5%			
PFPeS	(349.0 / 80.0) 3833912 (349.0 / 99.0) 1305229	(7.17, 0.89) (N/A, 0.01, 0.1)	889.1 876.6	0.3404 91.2 91.2	10.2061 [ 9.3838 ]	108.8%			
PFHxS	(399.0 / 80.0) 2726279 (399.0 / 99.0) 950721	(8.04, 1.00) (0.00, N/A, 0.2)	2847.5 3480.3	0.3487 101.7 101.7	8.5609 [ 9.1098 ]	94.0%			
PFHpS	(449.0 / 80.0) 2866495 (449.0 / 99.0) 775679	(8.81, 0.93) (N/A, 0.01, 0.1)	869.2 711.1	0.2706 92.2 92.2	9.9295 [ 9.5141 ]	104.4%			
PFOS	(499.0 / 80.0) 3349843 (499.0 / 99.0) 747472	(9.48, 1.00) (0.00, N/A, 0.0)	165.8 177.9	0.2231 97.6 97.6	9.3597 [ 9.2749 ]	100.9%			
PFNS	(549.0 / 80.0) 3972744 (549.0 / 99.0) 1014742	(9.77, 1.03) (N/A, 0.00, -0.1)	718.6 683.1	0.2554 102.4 102.4	9.6532 [ 9.5989 ]	100.6%			
PFDS	(599.0 / 80.0) 4844974 (599.0 / 99.0) 1295975	(9.92, 1.05) (N/A, 0.00, 0.0)	689.2 927.5	0.2675 104.9 104.9	9.5406 [ 9.6311 ]	99.1%			
PFDoS	(698.9 / 80.0) 2774144 (698.9 / 99.0) 625888	(10.12, 1.07) (N/A, 0.01, 0.0)	879.2 849.9	0.2256 109.8 109.8	10.4655 [ 9.6956 ]	107.9%			
4:2FTS	(327.0 / 307.0) 2716095 (327.0 / 81.0) 1479536	(5.83, 1.00) (0.00, N/A, 0.0)	943.5 964.5	0.5447 109.0 109.0	38.7521 [ 37.3811 ]	103.7%			
6:2FTS	(427.0 / 407.0) 1693098 (427.0 / 81.0) 1169620	(7.57, 1.00) (0.00, N/A, 0.0)	875.1 923.0	0.6908 96.4 96.4	38.1195 [ 37.9617 ]	100.4%			
8:2FTS	(527.0 / 507.0) 1479732 (527.0 / 81.0) 898218	(8.99, 1.00) (0.01, N/A, 0.1)	777.3 440.9	0.6070 86.3 86.3	42.3415 [ 38.3315 ]	110.5%			

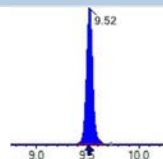
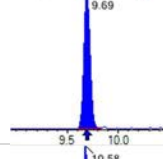
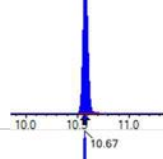
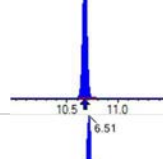
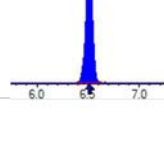
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	( 498.0 / 78.0 ) 4887000 ( 498.0 / 478.0 ) 111398	( 10.18 , 1.00 ) ( 0.00 , N/A , 0.1 )	972.0 305.6	0.0228 96.4 96.4	10.2920 [ 10.0000 ]	102.9%			
NMeFOSA	( 511.9 / 219.0 ) 4072979 ( 511.9 / 169.0 ) 2619505	( 10.61 , 1.00 ) ( 0.00 , N/A , 0.0 )	943.8 1001.2	0.6431 92.2 92.2	40.8060 [ 40.0000 ]	102.0%			
NEIFOSA	( 526.0 / 219.0 ) 4241681 ( 526.0 / 169.0 ) 4520678	( 10.70 , 1.00 ) ( 0.00 , N/A , 0.0 )	1521.4 1283.2	1.0658 94.6 94.6	41.6272 [ 40.0000 ]	104.1%			
NMeFOSAA	( 570.0 / 419.0 ) 549483 ( 570.0 / 483.0 ) 278477	( 9.52 , 1.00 ) ( 0.01 , N/A , 0.2 )	359.3 348.3	0.5068 107.9 107.9	10.0643 [ 10.0000 ]	100.6%			
NEIFOSAA	( 584.0 / 419.0 ) 574086 ( 584.0 / 526.0 ) 330066	( 9.70 , 1.00 ) ( 0.01 , N/A , 0.1 )	1020.8 253287.6	0.5749 74.6 74.6	10.0002 [ 10.0000 ]	100.0%			
NMeFOSE	( 616.1 / 59.0 ) 1281909	( 10.58 , 1.00 ) ( 0.01 , N/A , 0.0 )	988.9	N/A 0.0 0.0	42.9202 [ 40.0000 ]	107.3%			
NEtFOSE	( 630.0 / 59.0 ) 321577	( 10.68 , 1.00 ) ( 0.01 , N/A , 0.0 )	1562.9	N/A 0.0 0.0	38.8273 [ 40.0000 ]	97.1%			
HFPO-DA	( 285.0 / 169.0 ) 1218037 ( 285.0 / 185.0 ) 3186706	( 6.51 , 1.00 ) ( 0.00 , N/A , 0.1 )	777.8 832.6	2.6163 102.6 102.6	20.8267 [ 20.0000 ]	104.1%			
ADONA	( 377.0 / 85.0 ) 4439291 ( 377.0 / 251.0 ) 555702	( 7.42 , 1.14 ) ( N/A , 0.01 , 0.1 )	905.6 656.4	0.1252 99.8 99.8	18.3103 [ 18.8540 ]	97.1%			
9CI-Pf3ONS	( 531.0 / 351.0 ) 13396931 ( 533.0 / 353.0 ) 4040625	( 9.73 , 1.49 ) ( N/A , 0.01 , 0.1 )	854.2 873.7	0.3016 95.2 95.2	19.4852 [ 18.6651 ]	104.4%			
11CI-PF3OUDS	( 631.0 / 451.0 ) 8895076 ( 633.0 / 453.0 ) 2551133	( 10.02 , 1.54 ) ( N/A , 0.01 , 0.2 )	1095.5 1102.8	0.2868 98.0 98.0	19.6337 [ 18.8642 ]	104.1%			

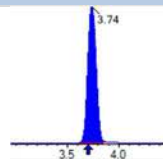
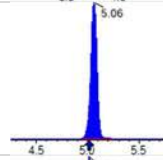
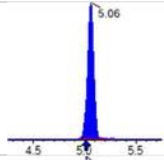
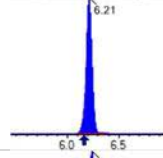
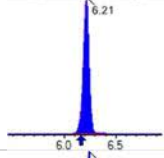
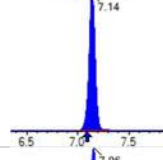
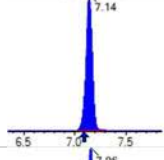
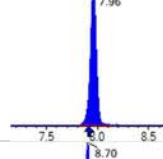
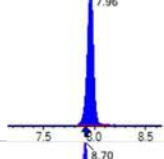
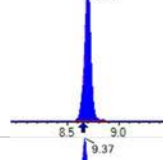
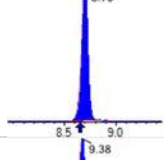
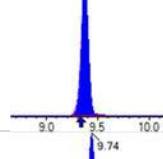
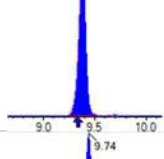
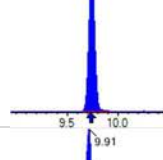
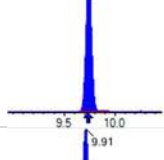
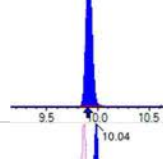
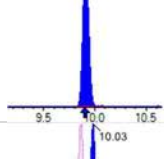
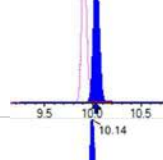
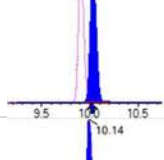
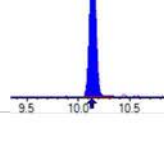
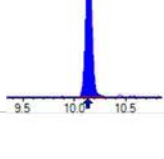
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 158571 (241.0 / 117.0) 264255	(4.49, 0.90) (N/A, 0.00, 0.0)	775.1 775.1	1.6665 0.1 100.7	41.8046 [ 40.0000 ]	104.5%			IR1,
5:3FTCA	(341.0 / 236.7) 1161224 (341.0 / 217.0) 1823387	(6.80, 1.10) (N/A, 0.00, 0.0)	698.6 785.3	1.5702 99.4 99.4	40.0047 [ 40.0000 ]	100.0%			
7:3FTCA	(441.0 / 317.0) 1352352 (441.0 / 337.0) 1111110	(8.62, 1.40) (N/A, 0.01, 0.1)	540.1 522.9	0.8216 101.0 101.0	41.2825 [ 40.0000 ]	103.2%			
PFEESA	(315.0 / 135.0) 2631622 (315.0 / 83.0) 755392	(6.62, 1.07) (N/A, 0.00, 0.0)	873.5 905.5	0.2870 101.6 101.6	17.9765 [ 17.8492 ]	100.7%			
PFMPA	(229.0 / 85.0) 484789	(4.21, 0.84) (N/A, 0.00, 0.0)	1336.6	N/A 0.0 0.0	20.3092 [ 20.0000 ]	101.5%			
PFMBA	(279.0 / 85.0) 1598827	(5.40, 1.08) (N/A, 0.00, 0.0)	952.1	N/A 0.0 0.0	20.5179 [ 20.0000 ]	102.6%			
NFDHA	(201.0 / 85.0) 64179 (295.0 / 201.0) 442492	(6.05, 0.98) (N/A, 0.01, 0.0)	562.5 668.7	6.8947 0.9 83.7	22.7396 [ 20.0000 ]	113.7%			IR1,
13C3_PFBA_IIS	(216.0 / 172.0) 89314	(3.70, N/A) (N/A, 0.00, N/A)	731.0	N/A	1.0216 [ 1.0000 ]	102.2% { 96.8% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 145545	(6.16, N/A) (N/A, 0.00, N/A)	789.6	N/A	1.1062 [ 1.0000 ]	110.6% { 115.7% }			
13C4_PFOA_IIS	(417.0 / 372.0) 128009	(7.91, N/A) (N/A, 0.01, N/A)	534.2	N/A	1.0227 [ 1.0000 ]	102.3% { 100.6% }			
13C5_PFNA_IIS	(468.0 / 423.0) 104958	(8.65, N/A) (N/A, 0.01, N/A)	456.0	N/A	1.0515 [ 1.0000 ]	105.1% { 95.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 108132	(9.33, N/A) (N/A, 0.01, N/A)	387.5	N/A	1.0427 [ 1.0000 ]	104.3% { 110.0% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 255747	(8.04, N/A) (N/A, 0.01, N/A)	675.0	N/A	1.0810 [ 1.0000 ]	108.1% { 101.1% }			
13C4_PFOS_IIS	(502.8 / 79.9) 225377	(9.48, N/A) (N/A, 0.01, N/A)	555.8	N/A	1.1234 [ 1.0000 ]	112.3% { 102.1% }			
13C4_PFBA_EIS	(217.0 / 172.0) 712942	(3.70, N/A) (N/A, -0.01, N/A)	842.4	N/A	7.7101 [ 8.0000 ]	96.4% { 98.3% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 390737	(5.01, N/A) (N/A, 0.00, N/A)	718.8	N/A	3.6465 [ 4.0000 ]	91.2% { 103.5% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 314247	(6.16, N/A) (N/A, 0.00, N/A)	681.5	N/A	1.8341 [ 2.0000 ]	91.7% { 103.7% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 269474	(7.09, N/A) (N/A, 0.00, N/A)	667.5	N/A	1.7802 [ 2.0000 ]	89.0% { 98.3% }			
13C8_PFOA_EIS	(421.0 / 376.0) 277696	(7.91, N/A) (N/A, 0.00, N/A)	581.5	N/A	1.9632 [ 2.0000 ]	98.2% { 109.6% }			
13C9_PFNA_EIS	(472.0 / 427.0) 110159	(8.65, N/A) (N/A, 0.00, N/A)	303.2	N/A	0.9609 [ 1.0000 ]	96.1% { 105.4% }			
13C6_PFDA_EIS	(519.0 / 474.0) 132503	(9.33, N/A) (N/A, 0.00, N/A)	411.2	N/A	0.9043 [ 1.0000 ]	90.4% { 92.9% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 195488	(9.73, N/A) (N/A, 0.01, N/A)	470.2	N/A	0.9266 [ 1.0000 ]	92.7% { 104.5% }			



Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[min], $\Delta$ RT- CV[min], $\Delta$ 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) 232409	(9.90, N/A) (N/A, 0.01, N/A)	875.5	N/A	0.9768 [ 1.0000 ]	97.7% { 107.8% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 171341	(10.13, N/A) (N/A, 0.00, N/A)	361.1	N/A	1.1849 [ 1.0000 ]	118.5% { 141.7% }			
13C3_PFBs_EIS	(302.0 / 80.0) 797888	(6.13, N/A) (N/A, 0.00, N/A)	707.4	N/A	1.9102 [ 2.0000 ]	95.5% { 105.1% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 400481	(8.04, N/A) (N/A, 0.00, N/A)	704.9	N/A	1.8488 [ 2.0000 ]	92.4% { 103.9% }			
13C8_PFOS_EIS	(507.0 / 80.0) 651265	(9.48, N/A) (N/A, 0.01, N/A)	285.0	N/A	1.7591 [ 2.0000 ]	88.0% { 97.5% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 87909	(5.83, N/A) (N/A, 0.00, N/A)	707.6	N/A	3.7325 [ 4.0000 ]	93.3% { 99.7% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 115065	(7.57, N/A) (N/A, 0.00, N/A)	664.2	N/A	3.8122 [ 4.0000 ]	95.3% { 107.7% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 95371	(8.98, N/A) (N/A, 0.00, N/A)	399.9	N/A	3.5245 [ 4.0000 ]	88.1% { 101.0% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 954124	(10.18, N/A) (N/A, 0.00, N/A)	826.3	N/A	1.7708 [ 2.0000 ]	88.5% { 98.1% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 250206	(10.61, N/A) (N/A, 0.00, N/A)	736.3	N/A	1.8640 [ 2.0000 ]	93.2% { 104.3% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 223481	(10.70, N/A) (N/A, 0.00, N/A)	1349.8	N/A	1.7830 [ 2.0000 ]	89.1% { 97.2% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 301337	(9.52, N/A) (N/A, 0.00, N/A)	337.2	N/A	3.4698 [ 4.0000 ]	86.7% { 105.8% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 254738	(9.69, N/A) (N/A, 0.00, N/A)	388.0	N/A	3.5294 [ 4.0000 ]	88.2% { 99.4% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 469116	(10.58, N/A) (N/A, 0.00, N/A)	787.1	N/A	18.1687 [ 20.0000 ]	90.8% { 93.7% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 259487	(10.67, N/A) (N/A, 0.00, N/A)	1188.7	N/A	18.6628 [ 20.0000 ]	93.3% { 98.0% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 765717	(6.51, N/A) (N/A, 0.00, N/A)	1009.4	N/A	7.3402 [ 8.0000 ]	91.8% { 103.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(212.9 / 169.0) 4511487	(3.74, 1.00) (0.00, N/A, 0.0)	62.1	N/A 0.0 0.0	79.1944 [ 80.0000 ]	99.0%			
PFPeA	(262.9 / 219.0) 3473618 (262.9 / 69.0) 38380	(5.06, 1.00) (0.00, N/A, 0.1)	961.4 533.5	0.0110 12945.6 108.1	42.6267 [ 40.0000 ]	106.6%			
PFHxA	(313.0 / 269.0) 2745514 (313.0 / 119.0) 266696	(6.21, 1.00) (0.00, N/A, -0.1)	945.8 555.3	0.0971 99.0 99.0	20.6603 [ 20.0000 ]	103.3%			
PFHpA	(363.0 / 319.0) 2377511 (363.0 / 169.0) 688725	(7.14, 1.00) (0.00, N/A, -0.1)	856.6 677.1	0.2897 92.7 92.7	19.4007 [ 20.0000 ]	97.0%			
PFOA	(413.0 / 369.0) 2750616 (413.0 / 169.0) 865497	(7.96, 1.00) (0.00, N/A, 0.0)	821.7 690.1	0.3147 93.4 93.4	20.3703 [ 20.0000 ]	101.9%			
PFNA	(463.0 / 419.0) 1798628 (463.0 / 169.0) 393871	(8.70, 1.00) (0.00, N/A, -0.1)	589.0 135.4	0.2190 109.1 109.1	19.1968 [ 20.0000 ]	96.0%			
PFDA	(513.0 / 469.0) 2454366 (513.0 / 169.0) 259918	(9.37, 1.00) (0.00, N/A, -0.4)	641.4 511.6	0.1059 133.1 133.1	20.7308 [ 20.0000 ]	103.7%			
PFUnA	(563.0 / 519.0) 2592927 (563.0 / 169.0) 280694	(9.74, 1.00) (0.00, N/A, 0.0)	517.7 427.5	0.1083 96.6 96.6	17.8070 [ 20.0000 ]	89.0%			
PFDoA	(613.0 / 569.0) 3556759 (613.0 / 169.0) 474664	(9.91, 1.00) (0.00, N/A, 0.1)	773.0 485.9	0.1335 106.3 106.3	18.3654 [ 20.0000 ]	91.8%			
PFTrDA	(663.0 / 619.0) 2628350 (663.0 / 169.0) 624857	(10.04, 1.01) (N/A, 0.01, 0.1)	942.9 413.5	0.2377 113.7 113.7	16.4453 [ 20.0000 ]	82.2%			
PFTeDA	(713.0 / 669.0) 2217979 (713.0 / 169.0) 497239	(10.14, 1.00) (0.00, N/A, 0.1)	686.2 714.8	0.2242 98.8 98.8	19.3782 [ 20.0000 ]	96.9%			

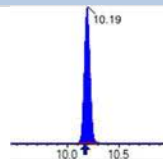
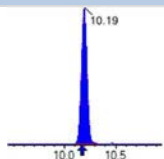
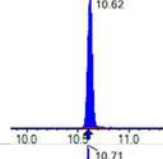
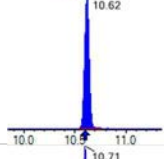
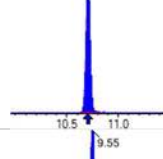
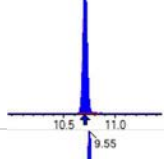
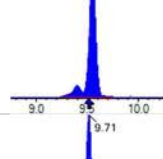
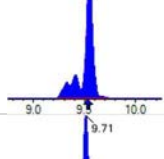
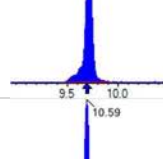
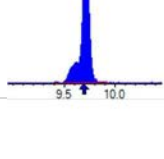
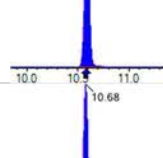
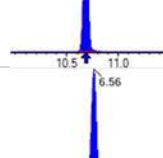
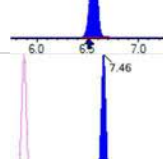
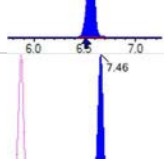
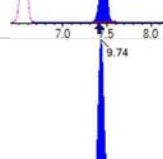
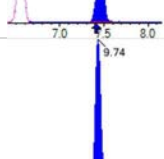
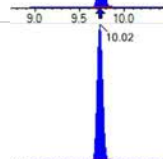
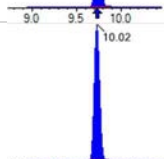

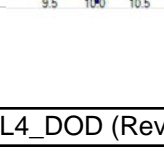


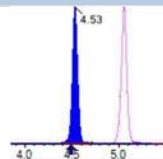
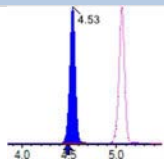
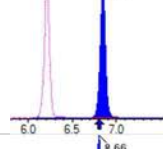
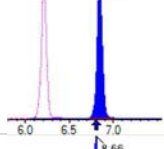
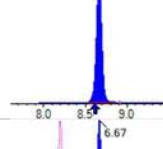
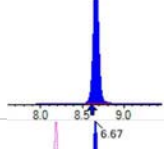
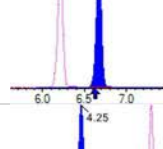
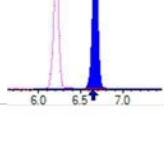
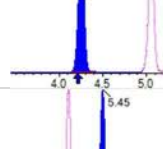
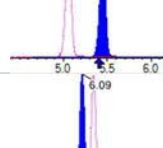
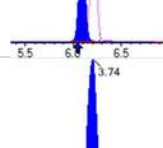
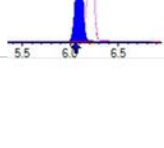
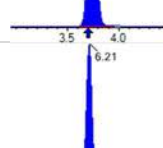
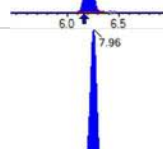
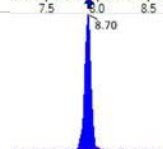
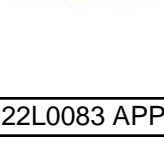
Chemist: DAG  
 Instrument: Saphira  
 Type: Sciex Q3 5500

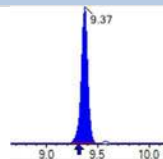
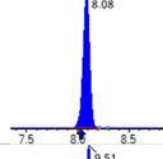
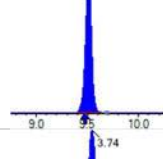
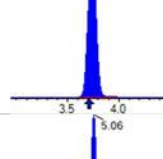
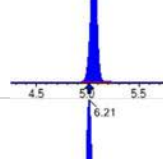
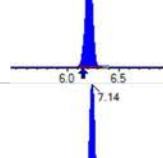
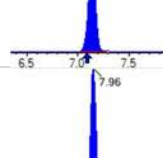
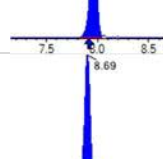
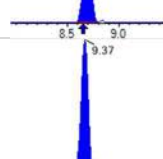
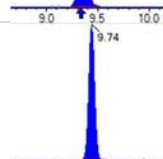

Sample I.D.: SB03856-CAL7  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

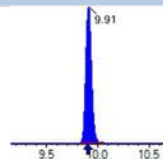
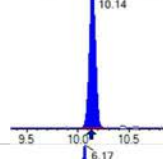
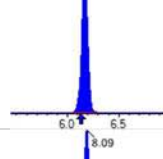
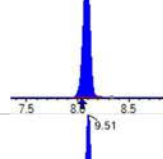
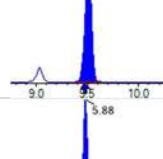
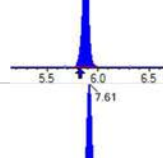
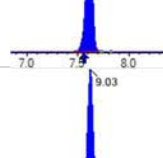
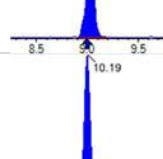
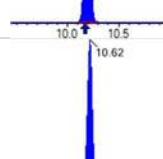
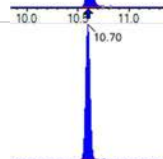

Quant Method: 1633 - 2022-12-15A  
 Path: S2022-12-15A (7)  
 Acquired: 2022/12/15 - 13:50

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	( 298.9 / 80.0 ) 3712453 ( 298.9 / 99.0 ) 2315898	( 6.17 , 1.00 ) ( 0.01 , N/A , 0.1 )	761.3 823.3	0.6238 91.7 91.7	19.0434 [ 17.6947 ]	107.6%			
PFPeS	( 349.0 / 80.0 ) 6610001 ( 349.0 / 99.0 ) 2412115	( 7.22 , 0.89 ) ( N/A , 0.05 , 0.1 )	901.8 788.9	0.3649 97.7 97.7	18.8632 [ 18.7676 ]	100.5%			
PFHxS	( 399.0 / 80.0 ) 5597788 ( 399.0 / 99.0 ) 1964254	( 8.09 , 1.00 ) ( 0.00 , N/A , 0.0 )	3562.0 3298.2	0.3509 102.4 102.4	18.8436 [ 18.2197 ]	103.4%			
PFHpS	( 449.0 / 80.0 ) 5167348 ( 449.0 / 99.0 ) 1387584	( 8.85 , 0.93 ) ( N/A , 0.05 , 0.3 )	573.3 663.2	0.2685 91.5 91.5	18.0603 [ 19.0281 ]	94.9%			
PFOS	( 499.0 / 80.0 ) 6675271 ( 499.0 / 99.0 ) 1465732	( 9.51 , 1.00 ) ( 0.00 , N/A , -0.1 )	134.0 261.1	0.2196 96.1 96.1	18.8185 [ 18.5499 ]	101.4%			
PFNS	( 549.0 / 80.0 ) 8147719 ( 549.0 / 99.0 ) 2096049	( 9.79 , 1.03 ) ( N/A , 0.01 , -0.1 )	955.0 861.6	0.2573 103.1 103.1	19.9755 [ 19.1977 ]	104.1%			
PFDS	( 599.0 / 80.0 ) 9469190 ( 599.0 / 99.0 ) 2380224	( 9.93 , 1.04 ) ( N/A , 0.02 , 0.2 )	983.5 1441.6	0.2514 98.6 98.6	18.8138 [ 19.2621 ]	97.7%			
PFDoS	( 698.9 / 80.0 ) 5085058 ( 698.9 / 99.0 ) 1057564	( 10.12 , 1.06 ) ( N/A , 0.01 , 0.0 )	1146.1 1190.6	0.2080 101.2 101.2	19.3557 [ 19.3913 ]	99.8%			
4:2FTS	( 327.0 / 307.0 ) 5239823 ( 327.0 / 81.0 ) 2989212	( 5.88 , 1.00 ) ( 0.00 , N/A , 0.1 )	941.0 890.3	0.5705 114.1 114.1	65.7114 [ 74.7622 ]	87.9%			
6:2FTS	( 427.0 / 407.0 ) 3034232 ( 427.0 / 81.0 ) 2154514	( 7.61 , 1.00 ) ( 0.00 , N/A , 0.0 )	988.8 1091.1	0.7101 99.1 99.1	74.4095 [ 75.9234 ]	98.0%			
8:2FTS	( 527.0 / 507.0 ) 2851246 ( 527.0 / 81.0 ) 1877965	( 9.03 , 1.00 ) ( 0.00 , N/A , -0.1 )	682.5 712.6	0.6586 93.6 93.6	67.2867 [ 76.6631 ]	87.8%			

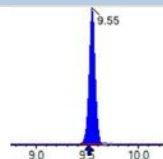
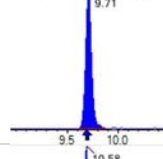
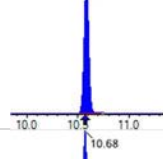
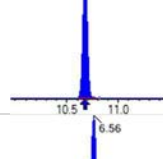
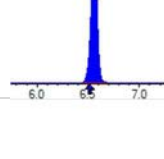
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[min], $\Delta$ RT-CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 9311493 (498.0 / 478.0) 214634	(10.19, 1.00) (0.00, N/A, -0.1)	1354.1 935.8	0.0231 97.5 97.5	19.6481 [ 20.0000 ]	98.2%			
NMeFOSA	(511.9 / 219.0) 6996515 (511.9 / 169.0) 4904697	(10.62, 1.00) (0.00, N/A, 0.1)	1475.4 1354.5	0.7010 100.5 100.5	69.4520 [ 80.0000 ]	86.8%			
NEIFOSA	(526.0 / 219.0) 7868329 (526.0 / 169.0) 8190292	(10.71, 1.00) (0.00, N/A, 0.0)	1307.7 1217.9	1.0409 92.4 92.4	75.2924 [ 80.0000 ]	94.1%			
NMeFOSAA	(570.0 / 419.0) 1214931 (570.0 / 483.0) 566427	(9.55, 1.00) (0.00, N/A, 0.1)	456.9 614.4	0.4662 99.3 99.3	19.2144 [ 20.0000 ]	96.1%			
NEIFOSAA	(584.0 / 419.0) 1150074 (584.0 / 526.0) 682283	(9.71, 1.00) (0.00, N/A, 0.0)	1014.7 8278.9	0.5933 77.0 77.0	24.0630 [ 20.0000 ]	120.3%			
NMeFOSE	(616.1 / 59.0) 2326736	(10.59, 1.00) (0.01, N/A, 0.0)	871.5	N/A 0.0 0.0	84.3517 [ 80.0000 ]	105.4%			
NEtFOSE	(630.0 / 59.0) 621358	(10.68, 1.00) (0.01, N/A, 0.0)	1110.1	N/A 0.0 0.0	79.5354 [ 80.0000 ]	99.4%			
HFPO-DA	(285.0 / 169.0) 2424724 (285.0 / 185.0) 6755443	(6.56, 1.00) (0.00, N/A, 0.0)	868.1 1056.8	2.7861 109.2 109.2	42.2552 [ 40.0000 ]	105.6%			
ADONA	(377.0 / 85.0) 8852350 (377.0 / 251.0) 1018733	(7.46, 1.14) (N/A, 0.05, 0.0)	1160.3 747.1	0.1151 91.8 91.8	37.2133 [ 37.7080 ]	98.7%			
9CI-Pr3ONS	(531.0 / 351.0) 23009665 (533.0 / 353.0) 7280282	(9.74, 1.49) (N/A, 0.02, 0.0)	717.7 586.6	0.3164 99.9 99.9	34.1089 [ 37.3302 ]	91.4%			
11CI-PF3OUDS	(631.0 / 451.0) 17065113 (633.0 / 453.0) 5067254	(10.02, 1.53) (N/A, 0.01, 0.0)	1003.4 701.7	0.2969 101.5 101.5	38.3902 [ 37.7283 ]	101.8%			

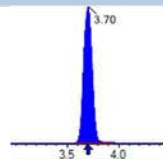
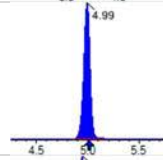
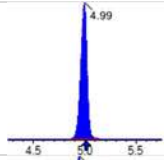
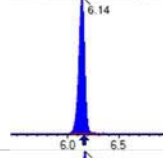
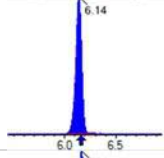
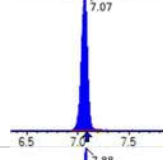
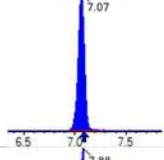
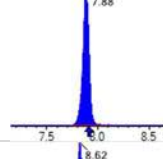
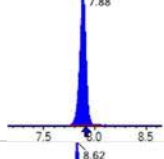
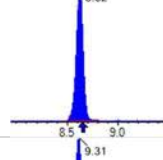
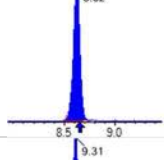
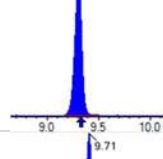
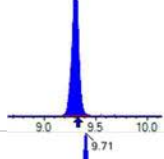
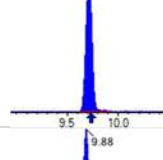
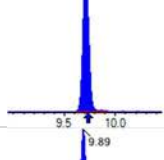
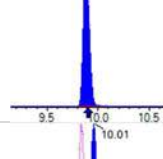
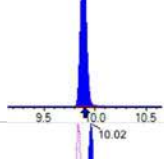
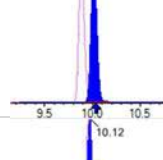
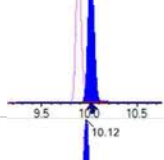
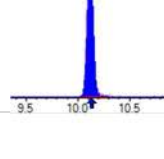
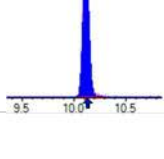
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
3:3FTCA	(241.0 / 177.0) 300869 (241.0 / 117.0) 497887	(4.53, 0.90) (N/A, 0.04, -0.1)	820.2 887.5	1.6548 0.1 100.0	86.0833 [ 80.0000 ]	107.6%			IR1,
5:3FTCA	(341.0 / 236.7) 2259608 (341.0 / 217.0) 3850070	(6.85, 1.10) (N/A, 0.05, 0.2)	677.7 832.0	1.7039 107.8 107.8	83.5049 [ 80.0000 ]	104.4%			
7:3FTCA	(441.0 / 317.0) 2688883 (441.0 / 337.0) 2147482	(8.66, 1.40) (N/A, 0.05, 0.0)	674.0 607.6	0.7987 98.2 98.2	88.0507 [ 80.0000 ]	110.1%			
PFEESA	(315.0 / 135.0) 5046110 (315.0 / 83.0) 1418283	(6.67, 1.07) (N/A, 0.05, 0.1)	755.3 1102.8	0.2811 99.4 99.4	36.9763 [ 35.6984 ]	103.6%			
PFMPA	(229.0 / 85.0) 899149	(4.25, 0.84) (N/A, 0.04, 0.0)	1065.7	N/A 0.0 0.0	40.8802 [ 40.0000 ]	102.2%			
PFMBA	(279.0 / 85.0) 3081463	(5.45, 1.08) (N/A, 0.05, 0.0)	1003.1	N/A 0.0 0.0	42.9170 [ 40.0000 ]	107.3%			
NFDHA	(201.0 / 85.0) 109882 (295.0 / 201.0) 811415	(6.09, 0.98) (N/A, 0.05, 0.0)	696.0 497.4	7.3844 0.9 89.6	41.8613 [ 40.0000 ]	104.7%			IR1,
13C3_PFBA_IIS	(216.0 / 172.0) 85842	(3.74, N/A) (N/A, 0.03, N/A)	660.4	N/A	0.9818 [ 1.0000 ]	98.2% { 93.0% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 142839	(6.21, N/A) (N/A, 0.05, N/A)	569.6	N/A	1.0856 [ 1.0000 ]	108.6% { 113.5% }			
13C4_PFOA_IIS	(417.0 / 372.0) 136659	(7.96, N/A) (N/A, 0.05, N/A)	579.1	N/A	1.0918 [ 1.0000 ]	109.2% { 107.4% }			
13C5_PFNA_IIS	(468.0 / 423.0) 86144	(8.70, N/A) (N/A, 0.06, N/A)	408.5	N/A	0.8630 [ 1.0000 ]	86.3% { 78.4% }			

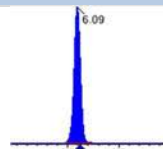
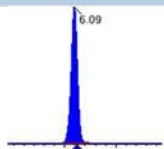
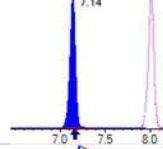
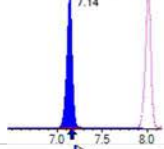
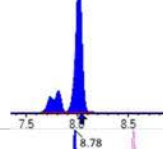
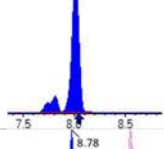
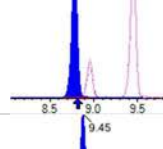
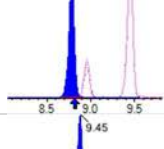
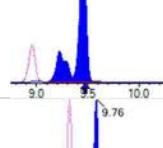
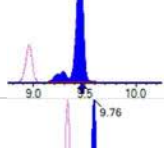
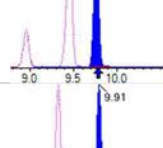
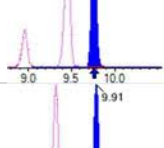
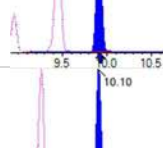
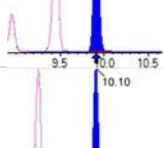
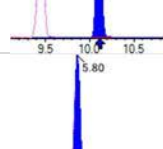
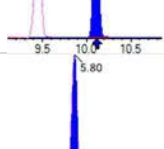
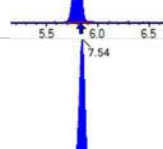
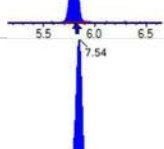
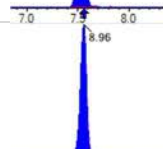
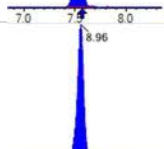

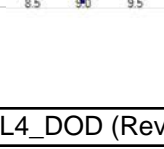
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDA_IIS	(515.1 / 470.1) 114170	(9.37, N/A) (N/A, 0.04, N/A)	546.9	N/A	1.1009 [ 1.0000 ]	110.1% { 116.2% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 238204	(8.08, N/A) (N/A, 0.05, N/A)	656.5	N/A	1.0069 [ 1.0000 ]	100.7% { 94.2% }			
13C4_PFOS_IIS	(502.8 / 79.9) 213057	(9.51, N/A) (N/A, 0.04, N/A)	490.2	N/A	1.0620 [ 1.0000 ]	106.2% { 96.5% }			
13C4_PFBA_EIS	(217.0 / 172.0) 686177	(3.74, N/A) (N/A, 0.03, N/A)	769.9	N/A	7.7208 [ 8.0000 ]	96.5% { 94.7% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 360033	(5.06, N/A) (N/A, 0.05, N/A)	743.8	N/A	3.4237 [ 4.0000 ]	85.6% { 95.4% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 292946	(6.21, N/A) (N/A, 0.05, N/A)	582.8	N/A	1.7422 [ 2.0000 ]	87.1% { 96.7% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 271429	(7.14, N/A) (N/A, 0.04, N/A)	634.6	N/A	1.8271 [ 2.0000 ]	91.4% { 99.0% }			
13C8_PFOA_EIS	(421.0 / 376.0) 284935	(7.96, N/A) (N/A, 0.05, N/A)	803.7	N/A	1.8869 [ 2.0000 ]	94.3% { 112.5% }			
13C9_PFNA_EIS	(472.0 / 427.0) 110881	(8.69, N/A) (N/A, 0.04, N/A)	482.2	N/A	1.1784 [ 1.0000 ]	117.8% { 106.1% }			
13C6_PFDA_EIS	(519.0 / 474.0) 128415	(9.37, N/A) (N/A, 0.04, N/A)	372.9	N/A	0.8301 [ 1.0000 ]	83.0% { 90.0% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 195380	(9.74, N/A) (N/A, 0.02, N/A)	331.4	N/A	0.8771 [ 1.0000 ]	87.7% { 104.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 241774	(9.91, N/A) (N/A, 0.01, N/A)	393.1	N/A	0.9624 [ 1.0000 ]	96.2% { 112.1% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 119594	(10.14, N/A) (N/A, 0.01, N/A)	319.8	N/A	0.7833 [ 1.0000 ]	78.3% { 98.9% }			
13C3_PFBs_EIS	(302.0 / 80.0) 713776	(6.17, N/A) (N/A, 0.04, N/A)	566.1	N/A	1.8347 [ 2.0000 ]	91.7% { 94.0% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 373582	(8.09, N/A) (N/A, 0.05, N/A)	770.6	N/A	1.8517 [ 2.0000 ]	92.6% { 97.0% }			
13C8_PFOS_EIS	(507.0 / 80.0) 645470	(9.51, N/A) (N/A, 0.04, N/A)	222.7	N/A	1.8443 [ 2.0000 ]	92.2% { 96.6% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 100014	(5.88, N/A) (N/A, 0.05, N/A)	686.2	N/A	4.5592 [ 4.0000 ]	114.0% { 113.4% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 105640	(7.61, N/A) (N/A, 0.05, N/A)	527.4	N/A	3.7577 [ 4.0000 ]	93.9% { 98.9% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 115639	(9.03, N/A) (N/A, 0.04, N/A)	381.0	N/A	4.5883 [ 4.0000 ]	114.7% { 122.4% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 952275	(10.19, N/A) (N/A, 0.01, N/A)	1335.0	N/A	1.8696 [ 2.0000 ]	93.5% { 97.9% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 252527	(10.62, N/A) (N/A, 0.01, N/A)	744.5	N/A	1.9901 [ 2.0000 ]	99.5% { 105.2% }			
D5_NeIFOSA_EIS	(531.1 / 169.0) 229198	(10.70, N/A) (N/A, 0.01, N/A)	1031.7	N/A	1.9343 [ 2.0000 ]	96.7% { 99.6% }			



Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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) 348983	(9.55, N/A) (N/A, 0.03, N/A)	395.8	N/A	4.2508 [ 4.0000 ]	106.3% { 122.5% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 212081	(9.71, N/A) (N/A, 0.02, N/A)	476.6	N/A	3.1083 [ 4.0000 ]	77.7% { 82.8% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 433249	(10.58, N/A) (N/A, 0.01, N/A)	841.6	N/A	17.7499 [ 20.0000 ]	88.7% { 86.5% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 244765	(10.68, N/A) (N/A, 0.01, N/A)	1487.2	N/A	18.6220 [ 20.0000 ]	93.1% { 92.4% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 751293	(6.56, N/A) (N/A, 0.05, N/A)	924.5	N/A	7.3384 [ 8.0000 ]	91.7% { 101.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(212.9 / 169.0) 9609446	(3.70, 1.00) (0.00, N/A, 0.0)	54.0	N/A 0.0 0.0	202.5833 [ 200.0000 ]	101.3%			
PFPeA	(262.9 / 219.0) 7078628 (262.9 / 69.0) 83513	(4.99, 1.00) (0.00, N/A, -0.1)	861.1 905.9	0.0118 13823.1 115.5	93.0005 [ 100.0000 ]	93.0%			
PFHxA	(313.0 / 269.0) 6339830 (313.0 / 119.0) 545663	(6.14, 1.00) (0.00, N/A, 0.0)	962.8 574.8	0.0861 87.7 87.7	47.9477 [ 50.0000 ]	95.9%			
PFHpA	(363.0 / 319.0) 5659079 (363.0 / 169.0) 1604956	(7.07, 1.00) (0.00, N/A, 0.1)	760.2 856.3	0.2836 90.7 90.7	50.6362 [ 50.0000 ]	101.3%			
PFOA	(413.0 / 369.0) 6099444 (413.0 / 169.0) 1877338	(7.88, 1.00) (0.00, N/A, 0.0)	960.6 809.9	0.3078 91.4 91.4	51.2627 [ 50.0000 ]	102.5%			
PFNA	(463.0 / 419.0) 3970833 (463.0 / 169.0) 865576	(8.62, 1.00) (0.00, N/A, 0.0)	685.6 107.1	0.2180 108.6 108.6	51.3559 [ 50.0000 ]	102.7%			
PFDA	(513.0 / 469.0) 5597687 (513.0 / 169.0) 551426	(9.31, 1.00) (0.00, N/A, -0.1)	599.7 515.5	0.0985 123.8 123.8	48.3365 [ 50.0000 ]	96.7%			
PFUnA	(563.0 / 519.0) 5814203 (563.0 / 169.0) 561805	(9.71, 1.00) (0.00, N/A, 0.1)	688.3 452.2	0.0966 86.3 86.3	46.2875 [ 50.0000 ]	92.6%			
PFDoA	(613.0 / 569.0) 8365635 (613.0 / 169.0) 1078202	(9.88, 1.00) (0.00, N/A, -0.1)	929.1 785.3	0.1289 102.6 102.6	49.1347 [ 50.0000 ]	98.3%			
PFTrDA	(663.0 / 619.0) 6480793 (663.0 / 169.0) 1252181	(10.01, 1.01) (N/A, -0.01, -0.1)	802.7 971.6	0.1932 92.4 92.4	46.1243 [ 50.0000 ]	92.2%			
PFTeDA	(713.0 / 669.0) 5397130 (713.0 / 169.0) 1072435	(10.12, 1.00) (0.01, N/A, 0.2)	1039.2 724.7	0.1987 87.5 87.5	49.9710 [ 50.0000 ]	99.9%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(298.9 / 80.0) 7713819 (298.9 / 99.0) 5488643	(6.09, 1.00) (0.00, N/A, 0.0)	829.2 892.2	0.7115 104.6 104.6	41.7930 [ 44.2367 ]	94.5%			
PFPeS	(349.0 / 80.0) 16215765 (349.0 / 99.0) 5859987	(7.14, 0.89) (N/A, -0.02, 0.1)	949.3 761.9	0.3614 96.8 96.8	45.2308 [ 46.9191 ]	96.4%			
PFHxS	(399.0 / 80.0) 13373568 (399.0 / 99.0) 4392758	(8.01, 1.00) (0.00, N/A, 0.2)	3340.4 4400.7	0.3285 95.8 95.8	44.0026 [ 45.5491 ]	96.6%			
PFHpS	(449.0 / 80.0) 12162174 (449.0 / 99.0) 3390972	(8.78, 0.93) (N/A, -0.03, -0.1)	752.4 699.6	0.2788 95.0 95.0	45.1460 [ 47.5703 ]	94.9%			
PFOS	(499.0 / 80.0) 13960172 (499.0 / 99.0) 3328999	(9.45, 1.00) (0.00, N/A, 0.0)	116.8 242.7	0.2385 104.3 104.3	41.7982 [ 46.3746 ]	90.1%			
PFNS	(549.0 / 80.0) 16618068 (549.0 / 99.0) 4229781	(9.76, 1.03) (N/A, -0.01, 0.0)	871.4 578.9	0.2545 102.0 102.0	43.2705 [ 47.9943 ]	90.2%			
PFDS	(599.0 / 80.0) 21537462 (599.0 / 99.0) 4943361	(9.91, 1.05) (N/A, -0.01, 0.1)	1005.7 891.9	0.2295 90.0 90.0	45.4473 [ 48.1553 ]	94.4%			
PFDoS	(698.9 / 80.0) 11052439 (698.9 / 99.0) 2632006	(10.10, 1.07) (N/A, -0.01, -0.1)	944.1 1062.8	0.2381 115.9 115.9	44.6808 [ 48.4781 ]	92.2%			
4:2FTS	(327.0 / 307.0) 11918066 (327.0 / 81.0) 7340607	(5.80, 1.00) (0.00, N/A, -0.1)	1034.9 952.6	0.6159 123.2 123.2	172.5992 [ 186.9055 ]	92.3%			
6:2FTS	(427.0 / 407.0) 7406066 (427.0 / 81.0) 5335631	(7.54, 1.00) (0.00, N/A, 0.1)	912.1 989.7	0.7204 100.6 100.6	169.9758 [ 189.8085 ]	89.6%			
8:2FTS	(527.0 / 507.0) 6556412 (527.0 / 81.0) 4053724	(8.96, 1.00) (0.00, N/A, -0.1)	665.0 641.3	0.6183 87.9 87.9	155.6544 [ 191.6577 ]	81.2%			

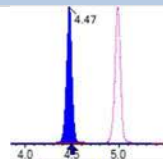
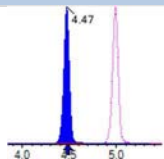
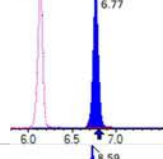
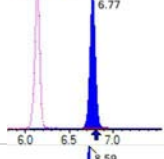
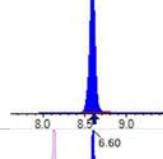
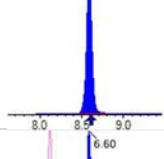
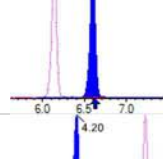
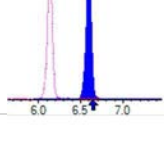
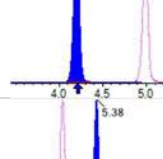
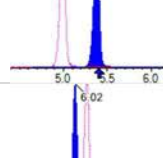
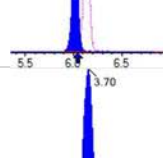
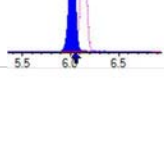
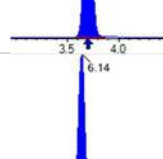
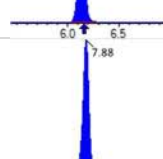
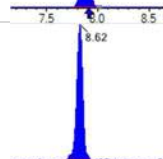



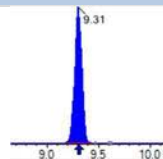
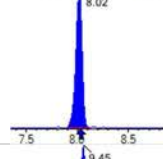
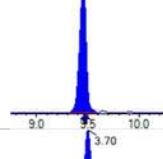
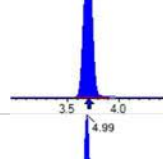
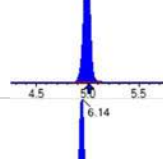
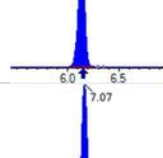
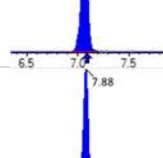
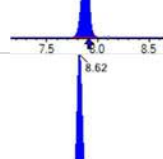
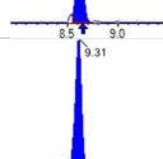
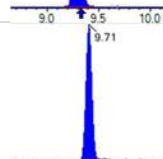

Chemist: DAG  
 Instrument: Saphira  
 Type: Sciex Q3 5500

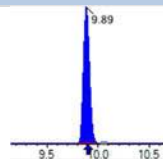
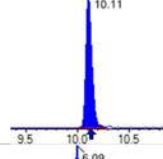
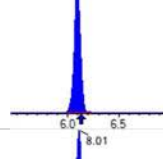
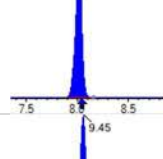
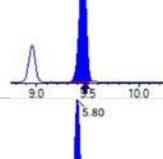
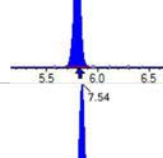
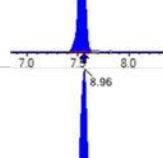
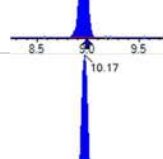
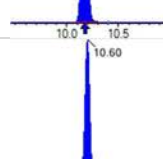
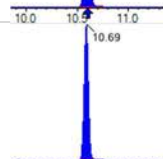

Sample I.D.: SB03856-CAL8  
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 Acquisition Method: 1633 2022-12-13.dam

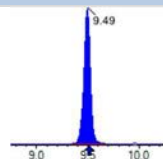
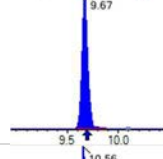
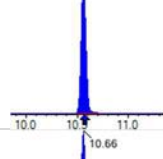
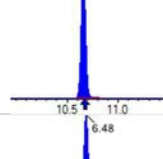
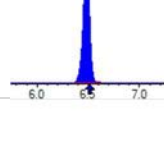
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 Path: S2022-12-15A (8)  
 Acquired: 2022/12/15 - 14:02

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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 ) 18391253 ( 498.0 / 478.0 ) 395988	( 10.17 , 1.00 ) ( 0.00 , N/A , 0.1 )	929.9 709.9	0.0215 91.1 91.1	52.7335 [ 50.0000 ]	105.5%			
NMeFOSA	( 511.9 / 219.0 ) 14999502 ( 511.9 / 169.0 ) 10323613	( 10.60 , 1.00 ) ( 0.00 , N/A , 0.1 )	1120.8 966.5	0.6883 98.7 98.7	155.9464 [ 200.0000 ]	78.0%			
NEFOSA	( 526.0 / 219.0 ) 16323004 ( 526.0 / 169.0 ) 17127846	( 10.69 , 1.00 ) ( 0.00 , N/A , 0.1 )	1579.4 1507.7	1.0493 93.2 93.2	187.1992 [ 200.0000 ]	93.6%			
NMeFOSAA	( 570.0 / 419.0 ) 2720368 ( 570.0 / 483.0 ) 1388089	( 9.50 , 1.00 ) ( 0.01 , N/A , 0.3 )	576.8 663.2	0.5103 108.6 108.6	51.8028 [ 50.0000 ]	103.6%			
NEIFOSAA	( 584.0 / 419.0 ) 2311771 ( 584.0 / 526.0 ) 1466573	( 9.68 , 1.00 ) ( 0.01 , N/A , 0.0 )	926.7 1382.2	0.6344 82.4 82.4	45.5331 [ 50.0000 ]	91.1%			
NMeFOSE	( 616.1 / 59.0 ) 5027635	( 10.57 , 1.00 ) ( 0.01 , N/A , 0.0 )	1239.4	N/A 0.0 0.0	212.8227 [ 200.0000 ]	106.4%			
NEtFOSE	( 630.0 / 59.0 ) 1193472	( 10.67 , 1.00 ) ( 0.01 , N/A , 0.0 )	1261.2	N/A 0.0 0.0	184.9681 [ 200.0000 ]	92.5%			
HFPO-DA	( 285.0 / 169.0 ) 5216858 ( 285.0 / 185.0 ) 14918772	( 6.48 , 1.00 ) ( 0.00 , N/A , 0.2 )	880.6 1000.9	2.8597 112.1 112.1	95.1339 [ 100.0000 ]	95.1%			
ADONA	( 377.0 / 85.0 ) 18563535 ( 377.0 / 251.0 ) 2591926	( 7.39 , 1.14 ) ( N/A , -0.03 , 0.0 )	820.1 828.2	0.1396 111.3 111.3	81.6598 [ 94.2700 ]	86.6%			
9CI-Pf3ONS	( 531.0 / 351.0 ) 45682625 ( 533.0 / 353.0 ) 14729723	( 9.71 , 1.50 ) ( N/A , -0.01 , 0.1 )	609.1 656.4	0.3224 101.8 101.8	70.8626 [ 93.3254 ]	75.9%			
11CI-PF3OUDS	( 631.0 / 451.0 ) 35077720 ( 633.0 / 453.0 ) 11700919	( 10.00 , 1.54 ) ( N/A , -0.01 , 0.0 )	993.9 1153.0	0.3336 114.0 114.0	82.5755 [ 94.3208 ]	87.5%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 716110 (241.0 / 117.0) 1183247	(4.47, 0.90) (N/A, -0.02, 0.0)	789.5 804.8	1.6523 0.1 99.8	219.3603 [ 200.0000 ]	109.7%			IR1,
5:3FTCA	(341.0 / 236.7) 5151839 (341.0 / 217.0) 9108691	(6.77, 1.10) (N/A, -0.03, 0.0)	837.9 884.4	1.7680 111.9 111.9	191.3456 [ 200.0000 ]	95.7%			
7:3FTCA	(441.0 / 317.0) 5929127 (441.0 / 337.0) 5039168	(8.59, 1.40) (N/A, -0.03, 0.2)	543.1 529.6	0.8499 104.5 104.5	195.1321 [ 200.0000 ]	97.6%			
PFEESA	(315.0 / 135.0) 10692268 (315.0 / 83.0) 3247766	(6.60, 1.08) (N/A, -0.03, 0.1)	849.9 1046.7	0.3037 107.5 107.5	78.7433 [ 89.2459 ]	88.2%			
PFMPA	(229.0 / 85.0) 1933344	(4.20, 0.84) (N/A, -0.01, 0.0)	1193.5	N/A 0.0 0.0	94.1081 [ 100.0000 ]	94.1%			
PFMBA	(279.0 / 85.0) 6195918	(5.38, 1.08) (N/A, -0.02, 0.0)	1029.1	N/A 0.0 0.0	92.3879 [ 100.0000 ]	92.4%			
NFDHA	(201.0 / 85.0) 250772 (295.0 / 201.0) 1708275	(6.02, 0.98) (N/A, -0.02, -0.2)	811.6 698.3	6.8121 0.9 82.7	96.1658 [ 100.0000 ]	96.2%			IR1,
13C3_PFBA_IIS	(216.0 / 172.0) 71800	(3.70, N/A) (N/A, -0.01, N/A)	711.9	N/A	0.8212 [ 1.0000 ]	82.1% { 77.8% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 126599	(6.14, N/A) (N/A, -0.03, N/A)	559.1	N/A	0.9622 [ 1.0000 ]	96.2% { 100.6% }			
13C4_PFOA_IIS	(417.0 / 372.0) 115787	(7.88, N/A) (N/A, -0.02, N/A)	604.1	N/A	0.9250 [ 1.0000 ]	92.5% { 91.0% }			
13C5_PFNxA_IIS	(468.0 / 423.0) 97367	(8.62, N/A) (N/A, -0.02, N/A)	343.3	N/A	0.9754 [ 1.0000 ]	97.5% { 88.6% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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	(515.1 / 470.1) 105855	(9.31, N/A) (N/A, -0.02, N/A)	333.2	N/A	1.0208 [ 1.0000 ]	102.1% { 107.7% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 212729	(8.02, N/A) (N/A, -0.02, N/A)	563.9	N/A	0.8992 [ 1.0000 ]	89.9% { 84.1% }			
13C4_PFOS_IIS	(502.8 / 79.9) 160027	(9.45, N/A) (N/A, -0.02, N/A)	279.8	N/A	0.7977 [ 1.0000 ]	79.8% { 72.5% }			
13C4_PFBA_EIS	(217.0 / 172.0) 571354	(3.70, N/A) (N/A, -0.01, N/A)	648.6	N/A	7.6861 [ 8.0000 ]	96.1% { 78.8% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 336284	(4.99, N/A) (N/A, -0.02, N/A)	943.0	N/A	3.6080 [ 4.0000 ]	90.2% { 89.1% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 291481	(6.14, N/A) (N/A, -0.02, N/A)	620.0	N/A	1.9558 [ 2.0000 ]	97.8% { 96.2% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 247534	(7.07, N/A) (N/A, -0.03, N/A)	596.9	N/A	1.8800 [ 2.0000 ]	94.0% { 90.3% }			
13C8_PFOA_EIS	(421.0 / 376.0) 251075	(7.88, N/A) (N/A, -0.03, N/A)	618.2	N/A	1.9624 [ 2.0000 ]	98.1% { 99.1% }			
13C9_PFNA_EIS	(472.0 / 427.0) 91503	(8.62, N/A) (N/A, -0.03, N/A)	366.9	N/A	0.8603 [ 1.0000 ]	86.0% { 87.5% }			
13C6_PFDA_EIS	(519.0 / 474.0) 125611	(9.31, N/A) (N/A, -0.02, N/A)	522.8	N/A	0.8757 [ 1.0000 ]	87.6% { 88.1% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 168542	(9.71, N/A) (N/A, -0.01, N/A)	261.9	N/A	0.8161 [ 1.0000 ]	81.6% { 90.1% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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) 212553	(9.89, N/A) (N/A, -0.01, N/A)	358.6	N/A	0.9126 [ 1.0000 ]	91.3% { 98.5% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 112852	(10.11, N/A) (N/A, -0.02, N/A)	282.6	N/A	0.7972 [ 1.0000 ]	79.7% { 93.3% }			
13C3_PFBs_EIS	(302.0 / 80.0) 675788	(6.09, N/A) (N/A, -0.03, N/A)	896.0	N/A	1.9451 [ 2.0000 ]	97.3% { 89.0% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 382210	(8.01, N/A) (N/A, -0.02, N/A)	823.7	N/A	2.1213 [ 2.0000 ]	106.1% { 99.2% }			
13C8_PFOS_EIS	(507.0 / 80.0) 607753	(9.45, N/A) (N/A, -0.02, N/A)	123.5	N/A	2.3119 [ 2.0000 ]	115.6% { 91.0% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 86607	(5.80, N/A) (N/A, -0.03, N/A)	475.2	N/A	4.4208 [ 4.0000 ]	110.5% { 98.2% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 112877	(7.54, N/A) (N/A, -0.03, N/A)	577.9	N/A	4.4960 [ 4.0000 ]	112.4% { 105.7% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 114949	(8.96, N/A) (N/A, -0.03, N/A)	487.0	N/A	5.1071 [ 4.0000 ]	127.7% { 121.7% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 700791	(10.17, N/A) (N/A, -0.01, N/A)	649.2	N/A	1.8318 [ 2.0000 ]	91.6% { 72.0% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 241108	(10.60, N/A) (N/A, -0.01, N/A)	940.4	N/A	2.5298 [ 2.0000 ]	126.5% { 100.5% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 191239	(10.69, N/A) (N/A, -0.01, N/A)	577.8	N/A	2.1488 [ 2.0000 ]	107.4% { 83.1% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 289837	(9.49, N/A) (N/A, -0.02, N/A)	515.7	N/A	4.7003 [ 4.0000 ]	117.5% { 101.7% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 225291	(9.67, N/A) (N/A, -0.02, N/A)	384.0	N/A	4.3961 [ 4.0000 ]	109.9% { 87.9% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 371048	(10.56, N/A) (N/A, -0.01, N/A)	1090.7	N/A	20.2390 [ 20.0000 ]	101.2% { 74.1% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 202155	(10.66, N/A) (N/A, -0.01, N/A)	967.8	N/A	20.4767 [ 20.0000 ]	102.4% { 76.3% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 717962	(6.48, N/A) (N/A, -0.03, N/A)	863.8	N/A	7.9124 [ 8.0000 ]	98.9% { 96.6% }			



**SECOND-SOURCE CALIBRATION VERIFICATION****EPA 1633****Laboratory:** APPL, LLC**SDG:****Client:** AECOM**Project:** Red Hill AFFF Assessment Sampling**Calibration:** 2251013**Laboratory ID:** SB03823-SCV1**Sequence:** SB03823**Standard ID:** 22L0185

<b>ANALYTE</b>	<b>EXPECTED (ng/mL)</b>	<b>FOUND (ng/mL)</b>	<b>% DRIFT</b>	<b>QC LIMIT</b>
PFBA	8.00	7.82	-2.3	30.00
PFPEA	4.00	3.88	-3.1	30.00
PFHXA	2.00	2.21	10.5	30.00
PFHPA	2.00	2.16	8.0	30.00
PFOA	2.00	1.86	-6.8	30.00
PFNA	2.00	2.03	1.7	30.00
PFDA	2.00	1.71	-14.7	30.00
PFUnA	2.00	1.95	-2.3	30.00
PFDOA	2.00	1.87	-6.5	30.00
PFTRDA	2.00	2.19	9.5	30.00
PFTEDA	2.00	1.81	-9.6	30.00
PFBS	1.77	1.87	5.5	30.00
PFPEs	1.88	1.86	-1.0	30.00
PFHXS	1.83	1.73	-5.7	30.00
PFHPS	1.91	1.87	-2.2	30.00
PFOS	1.86	1.91	2.6	30.00
PFNS	1.92	1.86	-3.1	30.00
PFDS	1.93	1.92	-0.5	30.00
PFDOS	1.94	2.25	15.8	30.00
4:2FTS	7.50	7.45	-0.7	30.00
6:2FTS	7.60	7.97	4.9	30.00
8:2FTS	7.68	7.58	-1.3	30.00
PFOSA	2.00	2.21	10.5	30.00
NMeFOSA	8.00	8.10	1.3	30.00
NEtFOSA	8.00	7.53	-5.9	30.00
NMeFOSAA	2.00	2.14	7.2	30.00
NEtFOSAA	2.00	2.12	6.1	30.00

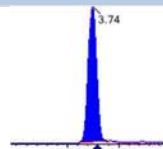
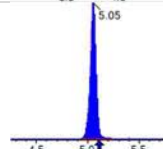
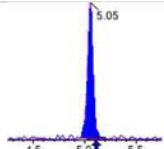
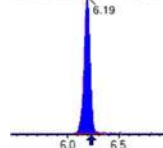
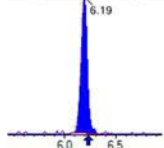
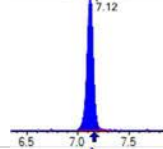
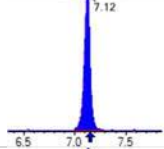
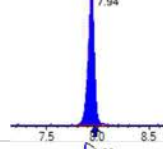
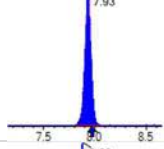
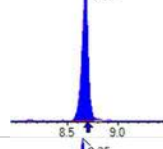
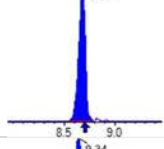
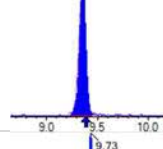
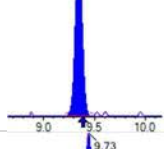
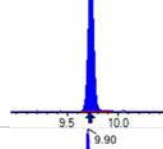
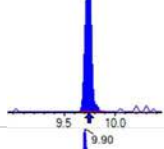
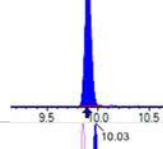
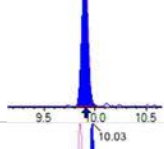
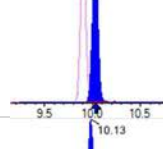
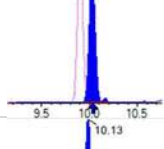
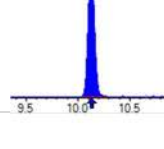
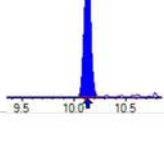
**SECOND-SOURCE CALIBRATION VERIFICATION****EPA 1633****Laboratory:** APPL, LLC**SDG:****Client:** AECOM**Project:** Red Hill AFFF Assessment Sampling**Calibration:** 2251013**Laboratory ID:** SB03823-SCV1**Sequence:** SB03823**Standard ID:** 22L0185

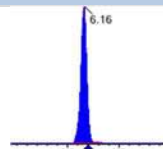
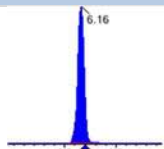
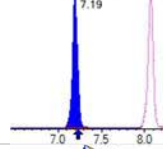
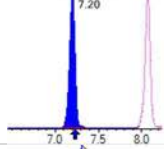
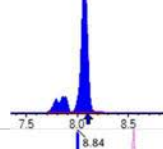
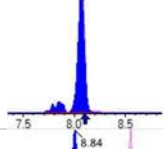
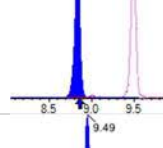
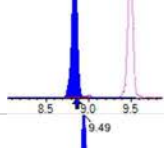
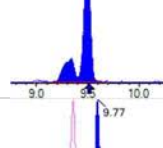
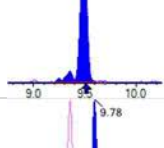
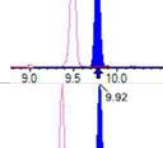
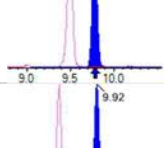
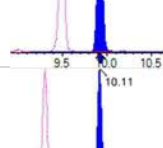
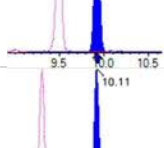
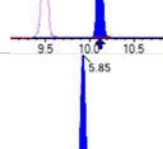
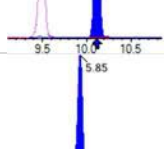
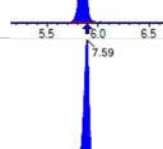
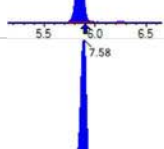
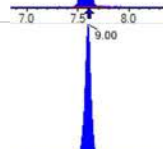
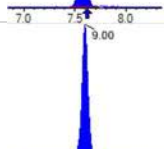

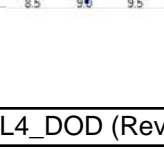
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NEtFOSE	8.00	7.40	-7.5	30.00
HFPO-DA	4.00	3.65	-8.7	30.00
ADONA	3.78	3.48	-7.9	30.00
PFEESA	3.56	4.04	13.4	30.00
PFMPA	4.00	4.20	4.9	30.00
PFMBA	4.00	3.90	-2.4	30.00
NFDHA	4.00	3.93	-1.8	30.00
9CL-PF3ONS	3.74	3.37	-9.8	30.00
11CL-PF3OUDS	3.78	3.50	-7.4	30.00
3:3FTCA	8.00	7.97	-0.4	30.00
5:3FTCA	8.00	8.62	7.7	30.00
7:3FTCA	8.00	7.98	-0.3	30.00
13C4-PFBA	8.00	8.29	3.6	30.00
13C5-PFPEA	4.00	3.74	-6.6	30.00
13C5-PFHXA	2.00	1.67	-16.3	30.00
13C4-PFHPA	2.00	1.75	-12.4	30.00
13C8-PFOA	2.00	1.99	-0.4	30.00
13C9-PFNA	1.00	1.01	1.4	30.00
13C6-PFDA	1.00	1.04	4.1	30.00
13C7-PFUnA	1.00	1.07	6.7	30.00
13C2-PFDOA	1.00	1.07	6.6	30.00
13C2-PFTEDA	1.00	1.09	8.8	30.00
13C3-PFBS	2.00	2.20	10.1	30.00
13C3-PFHXS	2.00	2.21	10.5	30.00
13C8-PFOS	2.00	1.85	-7.4	30.00
13C2-4:2FTS	4.00	4.60	15.0	30.00
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13C2-8:2FTS	4.00	4.27	6.7	30.00

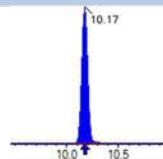
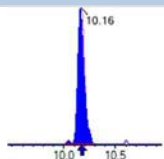
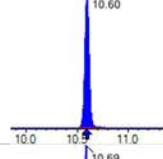
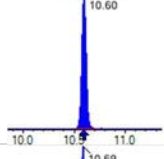
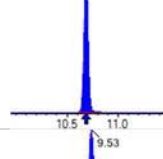
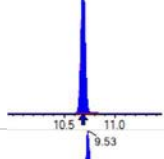
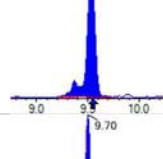
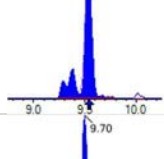
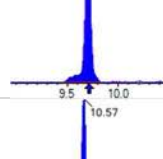
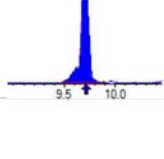
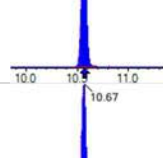
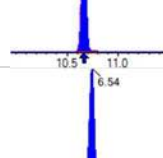
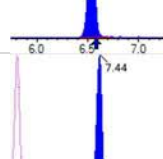
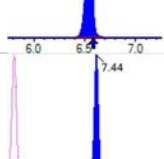
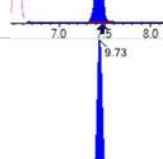
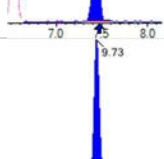
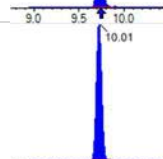
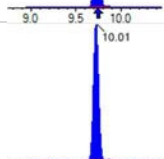

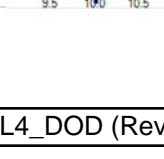
**SECOND-SOURCE CALIBRATION VERIFICATION****EPA 1633****Laboratory:** APPL, LLC**SDG:****Client:** AECOM**Project:** Red Hill AFFF Assessment Sampling**Calibration:** 2251013**Laboratory ID:** SB03823-SCV1**Sequence:** SB03823**Standard ID:** 22L0185

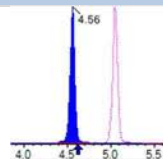
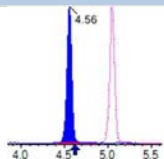
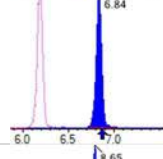
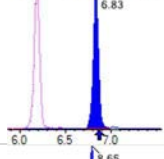
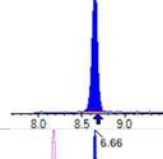
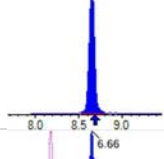
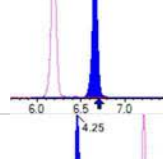
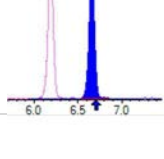
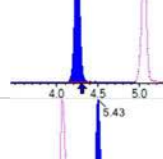
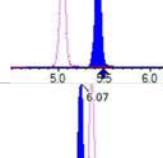
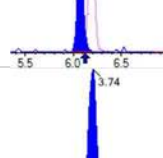
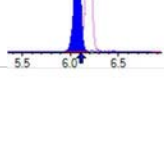
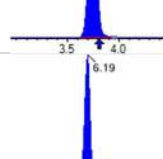
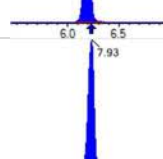
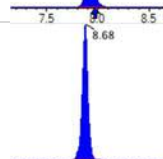

13C8-PFOSA	2.00	1.96	-2.2	30.00
D5-NETFOSA	2.00	1.96	-1.8	30.00
D3-NMEFOSA	2.00	1.91	-4.5	30.00
D3-NMEFOSAA	4.00	3.65	-8.7	30.00
D5-NETFOSAA	4.00	3.81	-4.9	30.00
D7-NMEFOSE	20.0	20.2	1.2	30.00
D9-NETFOSAE	20.0	20.1	0.4	30.00
13C3-HFPO-DA	8.00	8.34	4.2	30.00

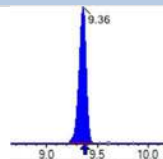
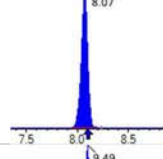
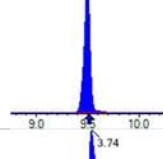
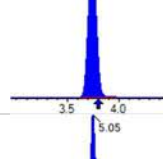
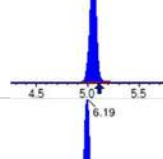
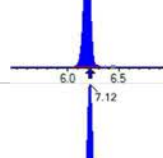
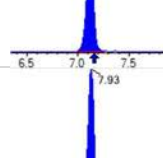
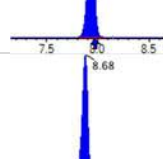
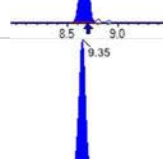
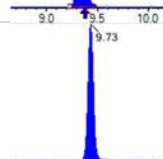

\* Values outside of QC limits

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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	(212.9 / 169.0) 521283	(3.74, 1.00) (0.00, N/A, 0.0)	64.0	N/A 0.0 0.0	7.8153 [ 8.0000 ]	97.7%			
PFPeA	(262.9 / 219.0) 352654 (262.9 / 69.0) 4723	(5.05, 1.00) (0.00, N/A, 0.0)	733.4 142.8	0.0134 106.6 106.6	3.8762 [ 4.0000 ]	96.9%			
PFHxA	(313.0 / 269.0) 273990 (313.0 / 119.0) 23426	(6.19, 1.00) (0.00, N/A, 0.0)	596.0 194.8	0.0855 92.4 92.4	2.2108 [ 2.0000 ]	110.5%			
PFHpA	(363.0 / 319.0) 253738 (363.0 / 169.0) 72500	(7.12, 1.00) (0.00, N/A, -0.1)	486.6 415.8	0.2857 91.8 91.8	2.1598 [ 2.0000 ]	108.0%			
PFOA	(413.0 / 369.0) 261722 (413.0 / 169.0) 89729	(7.94, 1.00) (0.00, N/A, 0.3)	530.8 718.6	0.3428 102.2 102.2	1.8646 [ 2.0000 ]	93.2%			
PFNA	(463.0 / 419.0) 196810 (463.0 / 169.0) 40835	(8.68, 1.00) (0.00, N/A, -0.1)	375.3 76.9	0.2075 118.2 118.2	2.0341 [ 2.0000 ]	101.7%			
PFDA	(513.0 / 469.0) 236417 (513.0 / 169.0) 22896	(9.35, 1.00) (0.01, N/A, 0.6)	295.7 134.2	0.0968 96.2 96.2	1.7054 [ 2.0000 ]	85.3%			
PFUnA	(563.0 / 519.0) 327077 (563.0 / 169.0) 26457	(9.73, 1.00) (0.00, N/A, -0.3)	463.5 126.9	0.0809 88.4 88.4	1.9535 [ 2.0000 ]	97.7%			
PFDoA	(613.0 / 569.0) 384313 (613.0 / 169.0) 47625	(9.90, 1.00) (0.00, N/A, 0.0)	780.9 189.4	0.1239 96.7 96.7	1.8709 [ 2.0000 ]	93.5%			
PFTrDA	(663.0 / 619.0) 370971 (663.0 / 169.0) 73664	(10.03, 1.01) (N/A, 0.00, 0.1)	627.4 257.9	0.1986 90.4 90.4	2.1905 [ 2.0000 ]	109.5%			
PFTeDA	(713.0 / 669.0) 251126 (713.0 / 169.0) 45614	(10.13, 1.00) (0.00, N/A, -0.2)	523.6 197.0	0.1816 97.6 97.6	1.8073 [ 2.0000 ]	90.4%			

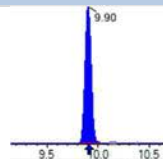
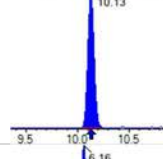
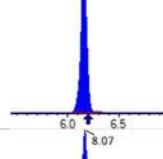
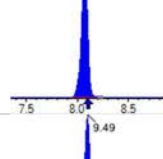
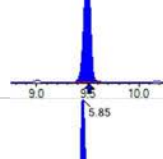
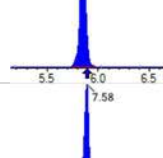
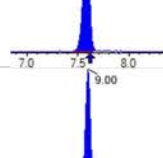
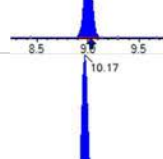
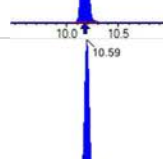
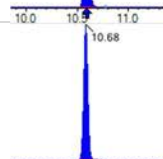

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 399690 (298.9 / 99.0) 271711	(6.16, 1.00) (0.00, N/A, 0.0)	657.2 685.3	0.6798 94.4 94.4	1.8668 [ 1.7695 ]	105.5%			
PFPeS	(349.0 / 80.0) 700884 (349.0 / 99.0) 244137	(7.19, 0.89) (N/A, -0.04, -0.3)	934.3 641.9	0.3483 93.0 93.0	1.8611 [ 1.8768 ]	99.2%			
PFHxS	(399.0 / 80.0) 593243 (399.0 / 99.0) 204683	(8.07, 1.00) (0.00, N/A, 0.0)	4198.1 49801.5	0.3450 107.0 107.0	1.7258 [ 1.8220 ]	94.7%			
PFHpS	(449.0 / 80.0) 504794 (449.0 / 99.0) 154118	(8.84, 0.93) (N/A, -0.03, -0.1)	638.7 470.9	0.3053 99.4 99.4	1.8688 [ 1.9028 ]	98.2%			
PFOS	(499.0 / 80.0) 626181 (499.0 / 99.0) 140172	(9.49, 1.00) (0.00, N/A, 0.3)	149.9 205.2	0.2239 97.5 97.5	1.9076 [ 1.8550 ]	102.8%			
PFNS	(549.0 / 80.0) 752461 (549.0 / 99.0) 229833	(9.77, 1.03) (N/A, 0.00, -0.1)	644.6 737.7	0.3054 117.8 117.8	1.8605 [ 1.9198 ]	96.9%			
PFDS	(599.0 / 80.0) 1021053 (599.0 / 99.0) 255891	(9.92, 1.04) (N/A, 0.00, -0.1)	951.0 524.3	0.2506 111.3 111.3	1.9203 [ 1.9262 ]	99.7%			
PFDoS	(698.9 / 80.0) 604400 (698.9 / 99.0) 124167	(10.11, 1.07) (N/A, -0.01, 0.0)	831.9 501.9	0.2054 101.5 101.5	2.2471 [ 1.9391 ]	115.9%			
4:2FTS	(327.0 / 307.0) 561734 (327.0 / 81.0) 307869	(5.85, 1.00) (0.00, N/A, 0.0)	953.8 580.9	0.5481 90.3 90.3	7.4483 [ 7.4762 ]	99.6%			
6:2FTS	(427.0 / 407.0) 331406 (427.0 / 81.0) 225416	(7.59, 1.00) (0.00, N/A, 0.1)	737.9 565.4	0.6802 104.7 104.7	7.9705 [ 7.5923 ]	105.0%			
8:2FTS	(527.0 / 507.0) 282426 (527.0 / 81.0) 180594	(9.00, 1.00) (0.00, N/A, 0.1)	473.9 354.1	0.6394 102.0 102.0	7.5776 [ 7.6663 ]	98.8%			

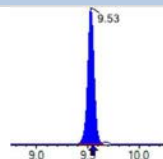
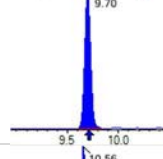
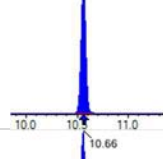
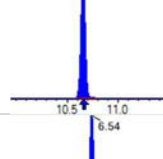
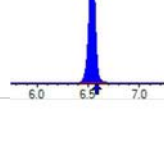
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 1033250 (498.0 / 478.0) 20256	(10.17, 1.00) (0.00, N/A, 0.7)	1124.8 1128.7	0.0196 86.1 86.1	2.2099 [2.0000]	110.5%			
NMeFOSA	(511.9 / 219.0) 806028 (511.9 / 169.0) 545125	(10.60, 1.00) (0.00, N/A, 0.0)	867.7 1095.5	0.6763 106.0 106.0	8.1041 [8.0000]	101.3%			
NEIFOSA	(526.0 / 219.0) 741467 (526.0 / 169.0) 822114	(10.69, 1.00) (0.00, N/A, 0.0)	1398.0 1346.0	1.1088 103.9 103.9	7.5260 [8.0000]	94.1%			
NMeFOSAA	(570.0 / 419.0) 115495 (570.0 / 483.0) 58777	(9.53, 1.00) (0.00, N/A, 0.1)	317.6 233.5	0.5089 88.7 88.7	2.1441 [2.0000]	107.2%			
NEIFOSAA	(584.0 / 419.0) 121264 (584.0 / 526.0) 62833	(9.70, 1.00) (0.00, N/A, 0.2)	934.5 356.5	0.5182 91.4 91.4	2.1213 [2.0000]	106.1%			
NMeFOSE	(616.1 / 59.0) 241287	(10.57, 1.00) (0.00, N/A, 0.0)	729.7	N/A 0.0 0.0	7.3639 [8.0000]	92.0%			
NEtFOSE	(630.0 / 59.0) 60435	(10.67, 1.00) (0.01, N/A, 0.0)	950.3	N/A 0.0 0.0	7.4001 [8.0000]	92.5%			
HFPO-DA	(285.0 / 169.0) 240754 (285.0 / 185.0) 715161	(6.54, 1.00) (0.00, N/A, 0.0)	532.0 989.0	2.9705 112.9 112.9	3.6520 [4.0000]	91.3%			
ADONA	(377.0 / 85.0) 978775 (377.0 / 251.0) 123153	(7.44, 1.14) (N/A, -0.03, 0.0)	787.5 372.2	0.1258 106.7 106.7	3.4816 [3.7708]	92.3%			
9CI-Pf3ONS	(531.0 / 351.0) 2687817 (533.0 / 353.0) 867444	(9.73, 1.49) (N/A, 0.00, 0.0)	726.9 763.1	0.3227 111.3 111.3	3.3719 [3.7330]	90.3%			
11CI-PF3OUDS	(631.0 / 451.0) 1788684 (633.0 / 453.0) 542381	(10.01, 1.53) (N/A, 0.00, 0.0)	913.1 696.5	0.3032 96.1 96.1	3.5015 [3.7728]	92.8%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 30472 (241.0 / 117.0) 52613	(4.56, 0.90) (N/A, -0.06, 0.1)	444.2 449.4	1.7266 105.3 105.3	7.9696 [ 8.0000 ]	99.6%			
5:3FTCA	(341.0 / 236.7) 213757 (341.0 / 217.0) 360066	(6.84, 1.10) (N/A, -0.04, 0.0)	542.0 451.8	1.6845 106.9 106.9	8.6199 [ 8.0000 ]	107.7%			
7:3FTCA	(441.0 / 317.0) 247588 (441.0 / 337.0) 214717	(8.65, 1.40) (N/A, -0.03, 0.0)	351.2 406.1	0.8672 103.5 103.5	7.9797 [ 8.0000 ]	99.7%			
PFEEA	(315.0 / 135.0) 544606 (315.0 / 83.0) 149416	(6.66, 1.08) (N/A, -0.04, 0.1)	936.7 544.5	0.2744 89.5 89.5	4.0353 [ 3.5698 ]	113.0%			
PFMPA	(229.0 / 85.0) 103603	(4.25, 0.84) (N/A, -0.06, 0.0)	817.6	N/A 0.0 0.0	4.1950 [ 4.0000 ]	104.9%			
PFMBA	(279.0 / 85.0) 322612	(5.43, 1.08) (N/A, -0.06, 0.0)	837.4	N/A 0.0 0.0	3.9033 [ 4.0000 ]	97.6%			
NFDHA	(201.0 / 85.0) 10183 (295.0 / 201.0) 71338	(6.07, 0.98) (N/A, -0.04, 0.0)	198.6 618.0	7.0057 106.4 106.4	3.9282 [ 4.0000 ]	98.2%			
13C3_PFBA_IIS	(216.0 / 172.0) 120239	(3.74, N/A) (N/A, -0.06, N/A)	778.8	N/A	0.9910 [ 1.0000 ]	99.1% { 94.9% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 198173	(6.19, N/A) (N/A, -0.04, N/A)	473.8	N/A	1.0860 [ 1.0000 ]	108.6% { 101.2% }			
13C4_PFOA_IIS	(417.0 / 372.0) 183914	(7.93, N/A) (N/A, -0.03, N/A)	948.8	N/A	1.0536 [ 1.0000 ]	105.4% { 104.4% }			
13C5_PFNxA_IIS	(468.0 / 423.0) 135808	(8.68, N/A) (N/A, -0.03, N/A)	347.8	N/A	0.9994 [ 1.0000 ]	99.9% { 102.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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	(515.1 / 470.1) 137382	(9.36, N/A) (N/A, -0.02, N/A)	403.3	N/A	0.9901 [ 1.0000 ]	99.0% { 97.2% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 299066	(8.07, N/A) (N/A, -0.03, N/A)	939.8	N/A	0.9267 [ 1.0000 ]	92.7% { 89.2% }			
13C4_PFOS_IIS	(502.8 / 79.9) 258856	(9.49, N/A) (N/A, -0.01, N/A)	568.8	N/A	1.0279 [ 1.0000 ]	102.8% { 93.9% }			
13C4_PFBA_EIS	(217.0 / 172.0) 759623	(3.74, N/A) (N/A, -0.06, N/A)	788.5	N/A	8.2879 [ 8.0000 ]	103.6% { 95.5% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 409883	(5.05, N/A) (N/A, -0.06, N/A)	719.2	N/A	3.7358 [ 4.0000 ]	93.4% { 96.1% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 279695	(6.19, N/A) (N/A, -0.04, N/A)	594.6	N/A	1.6747 [ 2.0000 ]	83.7% { 88.3% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 253878	(7.12, N/A) (N/A, -0.04, N/A)	507.3	N/A	1.7511 [ 2.0000 ]	87.6% { 88.0% }			
13C8_PFOA_EIS	(421.0 / 376.0) 280931	(7.93, N/A) (N/A, -0.03, N/A)	587.3	N/A	1.9921 [ 2.0000 ]	99.6% { 103.6% }			
13C9_PFNA_EIS	(472.0 / 427.0) 106130	(8.68, N/A) (N/A, -0.03, N/A)	283.5	N/A	1.0143 [ 1.0000 ]	101.4% { 98.4% }			
13C6_PFDA_EIS	(519.0 / 474.0) 137102	(9.35, N/A) (N/A, -0.03, N/A)	473.4	N/A	1.0406 [ 1.0000 ]	104.1% { 112.7% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 193012	(9.73, N/A) (N/A, 0.00, N/A)	433.2	N/A	1.0666 [ 1.0000 ]	106.7% { 103.9% }			



Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 237203	(9.90, N/A) (N/A, 0.00, N/A)	390.7	N/A	1.0659 [ 1.0000 ]	106.6% { 97.0% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 152044	(10.13, N/A) (N/A, 0.00, N/A)	415.3	N/A	1.0881 [ 1.0000 ]	108.8% { 102.2% }			
13C3_PFBs_EIS	(302.0 / 80.0) 757837	(6.16, N/A) (N/A, -0.04, N/A)	622.2	N/A	2.2023 [ 2.0000 ]	110.1% { 98.2% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 428070	(8.07, N/A) (N/A, -0.03, N/A)	640.8	N/A	2.2105 [ 2.0000 ]	110.5% { 95.5% }			
13C8_PFOS_EIS	(507.0 / 80.0) 597041	(9.49, N/A) (N/A, -0.01, N/A)	346.2	N/A	1.8525 [ 2.0000 ]	92.6% { 93.4% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 92518	(5.85, N/A) (N/A, -0.05, N/A)	623.9	N/A	4.6002 [ 4.0000 ]	115.0% { 99.1% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 102037	(7.58, N/A) (N/A, -0.03, N/A)	436.6	N/A	4.1494 [ 4.0000 ]	103.7% { 91.7% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 104682	(9.00, N/A) (N/A, -0.03, N/A)	583.3	N/A	4.2668 [ 4.0000 ]	106.7% { 94.6% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 953329	(10.17, N/A) (N/A, 0.00, N/A)	852.4	N/A	1.9555 [ 2.0000 ]	97.8% { 92.1% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 239101	(10.59, N/A) (N/A, 0.00, N/A)	1205.5	N/A	1.9107 [ 2.0000 ]	95.5% { 102.2% }			
D5_NeIFOSA_EIS	(531.1 / 169.0) 213162	(10.68, N/A) (N/A, 0.00, N/A)	1102.1	N/A	1.9634 [ 2.0000 ]	98.2% { 99.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 278724	(9.53, N/A) (N/A, -0.01, N/A)	461.1	N/A	3.6538 [ 4.0000 ]	91.3% { 88.2% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 262675	(9.70, N/A) (N/A, -0.01, N/A)	341.3	N/A	3.8055 [ 4.0000 ]	95.1% { 88.7% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 485730	(10.56, N/A) (N/A, 0.00, N/A)	1038.3	N/A	20.2473 [ 20.0000 ]	101.2% { 107.0% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 241423	(10.66, N/A) (N/A, 0.00, N/A)	1233.7	N/A	20.0838 [ 20.0000 ]	100.4% { 100.6% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 852806	(6.54, N/A) (N/A, -0.04, N/A)	906.2	N/A	8.3362 [ 8.0000 ]	104.2% { 113.8% }			

**SECOND-SOURCE CALIBRATION VERIFICATION****EPA 1633****Laboratory:** APPL, LLC**SDG:****Client:** AECOM**Project:** Red Hill AFFF Assessment Sampling**Calibration:** 2251019**Laboratory ID:** SB03856-SCV1**Sequence:** SB03856**Standard ID:** 22L0308

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
PFBA	8.00	7.88	-1.5	30.00
PFPEA	4.00	3.80	-5.1	30.00
PFHXA	2.00	1.82	-9.1	30.00
PFHPA	2.00	1.92	-4.2	30.00
PFOA	2.00	1.84	-7.9	30.00
PFNA	2.00	2.02	1.2	30.00
PFDA	2.00	1.72	-14.2	30.00
PFUnA	2.00	2.12	6.0	30.00
PFDOA	2.00	2.06	2.9	30.00
PFTRDA	2.00	2.07	3.5	30.00
PFTEDA	2.00	1.78	-11.1	30.00
PFBS	1.77	1.67	-5.6	30.00
PFPEs	1.88	1.79	-4.6	30.00
PFHXS	1.83	1.67	-9.0	30.00
PFHPS	1.91	1.76	-7.6	30.00
PFOS	1.86	1.62	-13.0	30.00
PFNS	1.92	2.09	8.7	30.00
PFDS	1.93	1.89	-2.0	30.00
PFDOS	1.94	1.95	0.3	30.00
4:2FTS	7.50	6.94	-7.4	30.00
6:2FTS	7.60	7.48	-1.6	30.00
8:2FTS	7.68	8.62	12.2	30.00
PFOSA	2.00	1.81	-9.7	30.00
NMeFOSA	8.00	7.95	-0.6	30.00
NEtFOSA	8.00	7.36	-8.0	30.00
NMeFOSAA	2.00	2.53	26.7	30.00
NEtFOSAA	2.00	2.09	4.6	30.00

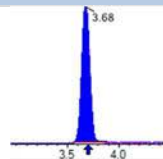
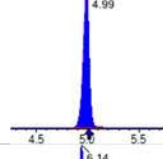
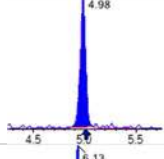
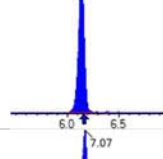
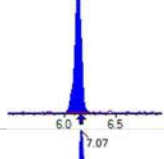
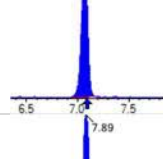
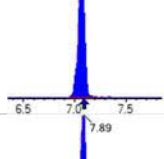
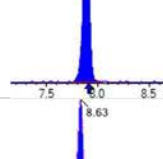
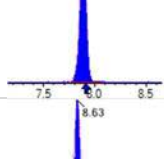
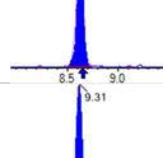
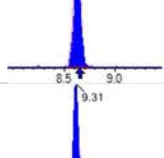
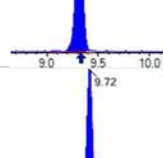
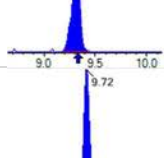
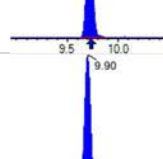
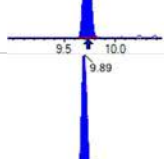
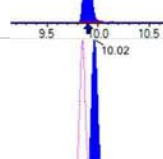
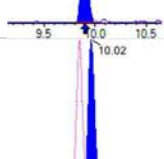
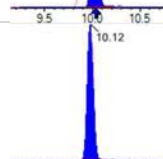
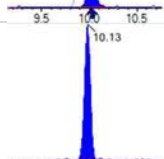

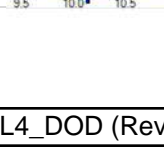
**SECOND-SOURCE CALIBRATION VERIFICATION****EPA 1633****Laboratory:** APPL, LLC**SDG:****Client:** AECOM**Project:** Red Hill AFFF Assessment Sampling**Calibration:** 2251019**Laboratory ID:** SB03856-SCV1**Sequence:** SB03856**Standard ID:** 22L0308

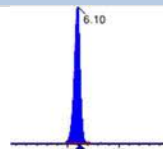
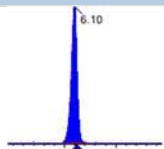
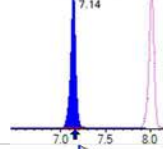
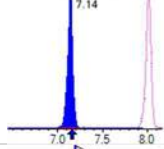
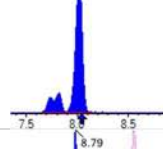
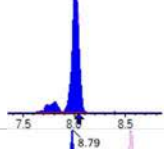
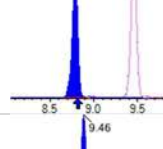
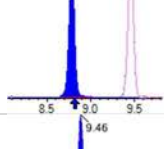
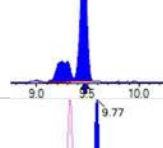
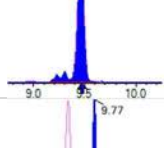
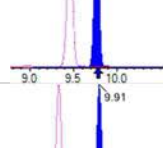
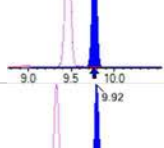
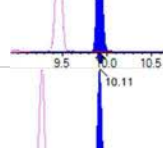
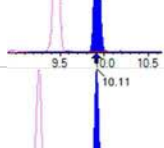
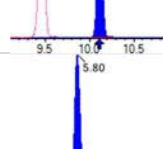
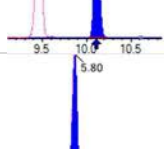
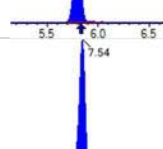
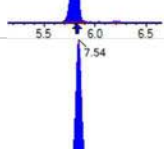
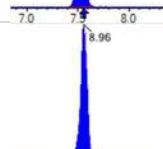
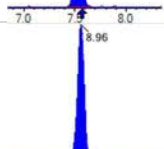

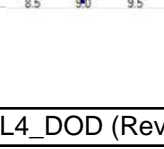
NMeFOSE	8.00	7.33	-8.4	30.00
NEtFOSE	8.00	7.52	-6.0	30.00
HFPO-DA	4.00	3.45	-13.7	30.00
ADONA	3.78	3.63	-4.1	30.00
PFEESA	3.56	3.15	-11.6	30.00
PFMPA	4.00	3.61	-9.7	30.00
PFMBA	4.00	3.88	-3.0	30.00
NFDHA	4.00	3.64	-9.1	30.00
9CL-PF3ONS	3.74	3.82	2.1	30.00
11CL-PF3OUDS	3.78	3.93	3.9	30.00
3:3FTCA	8.00	7.51	-6.1	30.00
5:3FTCA	8.00	6.84	-14.5	30.00
7:3FTCA	8.00	7.08	-11.4	30.00
13C4-PFBA	8.00	9.34	16.8	30.00
13C5-PFPEA	4.00	4.10	2.4	30.00
13C5-PFHXA	2.00	2.19	9.5	30.00
13C4-PFHPA	2.00	2.11	5.5	30.00
13C8-PFOA	2.00	2.10	4.8	30.00
13C9-PFNA	1.00	1.11	10.9	30.00
13C6-PFDA	1.00	1.18	17.8	30.00
13C7-PFUnA	1.00	1.17	16.8	30.00
13C2-PFDOA	1.00	1.16	16.0	30.00
13C2-PFTEDA	1.00	1.32	31.8 *	30.00
13C3-PFBS	2.00	2.23	11.4	30.00
13C3-PFHXS	2.00	2.17	8.3	30.00
13C8-PFOS	2.00	2.36	17.8	30.00
13C2-4:2FTS	4.00	4.46	11.4	30.00
13C2-6:2FTS	4.00	4.07	1.6	30.00
13C2-8:2FTS	4.00	3.66	-8.6	30.00

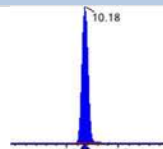
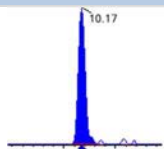
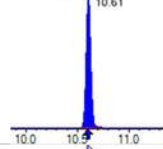
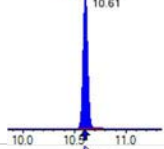
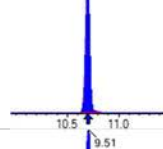
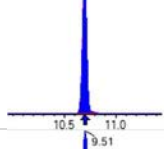
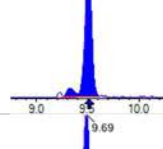
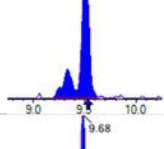
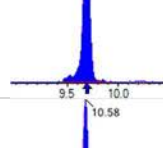
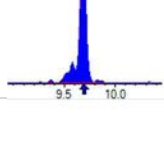
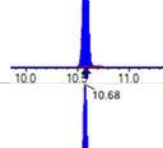
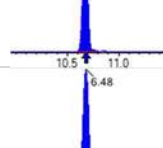
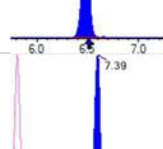
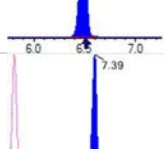
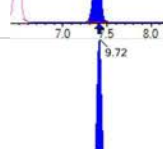
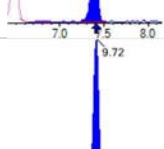
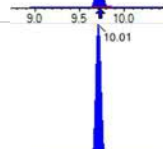
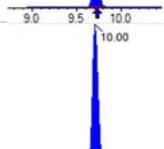

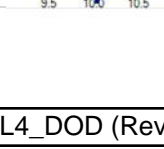
**SECOND-SOURCE CALIBRATION VERIFICATION****EPA 1633****Laboratory:** APPL, LLC**SDG:****Client:** AECOM**Project:** Red Hill AFFF Assessment Sampling**Calibration:** 2251019**Laboratory ID:** SB03856-SCV1**Sequence:** SB03856**Standard ID:** 22L0308

13C8-PFOSA	2.00	2.43	21.6	30.00
D5-NETFOSA	2.00	2.61	30.5 *	30.00
D3-NMEFOSA	2.00	2.43	21.5	30.00
D3-NMEFOSAA	4.00	4.57	14.2	30.00
D5-NETFOSAA	4.00	5.23	30.7 *	30.00
D7-NMEFOSE	20.0	24.6	22.9	30.00
D9-NETFOSE	20.0	23.8	19.2	30.00
13C3-HFPO-DA	8.00	8.72	9.0	30.00

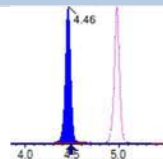
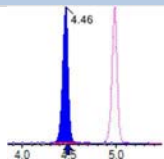
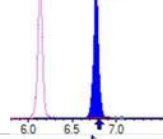
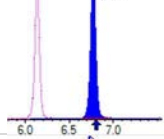
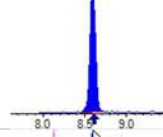
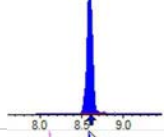
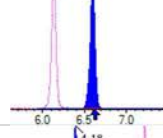
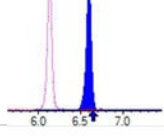
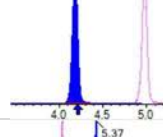
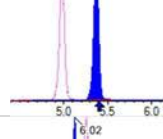
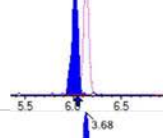
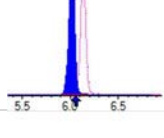
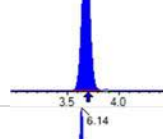
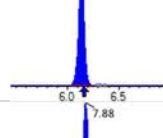
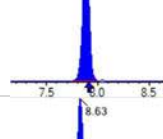
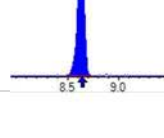
\* Values outside of QC limits

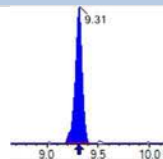
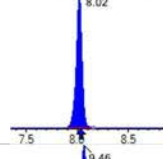
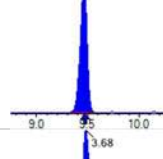
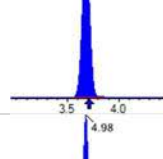
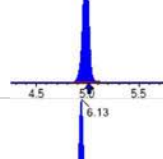
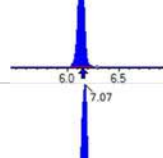
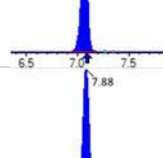
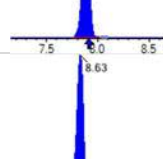
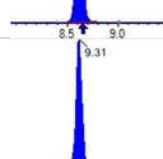
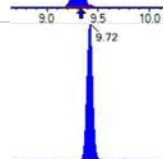

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 496947	(3.68, 1.00) (0.00, N/A, 0.0)	62.7	N/A 0.0 0.0	7.8833 [ 8.0000 ]	98.5%			
PFPeA	(262.9 / 219.0) 340989 (262.9 / 69.0) 3950	(4.99, 1.00) (0.01, N/A, 0.2)	669.3 135.5	0.0116 13573.7 113.4	3.7961 [ 4.0000 ]	94.9%			
PFHxA	(313.0 / 269.0) 279897 (313.0 / 119.0) 23319	(6.14, 1.00) (0.00, N/A, 0.3)	545.2 250.9	0.0833 84.9 84.9	1.8188 [ 2.0000 ]	90.9%			
PFHpA	(363.0 / 319.0) 249866 (363.0 / 169.0) 77070	(7.07, 1.00) (0.00, N/A, 0.1)	512.8 629.7	0.3084 98.7 98.7	1.9162 [ 2.0000 ]	95.8%			
PFOA	(413.0 / 369.0) 242431 (413.0 / 169.0) 80946	(7.89, 1.00) (0.00, N/A, 0.0)	429.7 522.0	0.3339 99.1 99.1	1.8411 [ 2.0000 ]	92.1%			
PFNA	(463.0 / 419.0) 190762 (463.0 / 169.0) 40439	(8.63, 1.00) (0.00, N/A, 0.0)	325.2 83.7	0.2120 105.6 105.6	2.0235 [ 2.0000 ]	101.2%			
PFDA	(513.0 / 469.0) 237687 (513.0 / 169.0) 26243	(9.31, 1.00) (0.00, N/A, 0.2)	354.4 347.3	0.1104 138.8 138.8	1.7169 [ 2.0000 ]	85.8%			
PFUnA	(563.0 / 519.0) 338756 (563.0 / 169.0) 34827	(9.72, 1.00) (0.00, N/A, 0.0)	614.7 373.7	0.1028 91.8 91.8	2.1196 [ 2.0000 ]	106.0%			
PFDoA	(613.0 / 569.0) 396052 (613.0 / 169.0) 57414	(9.90, 1.00) (0.00, N/A, 0.4)	459.3 243.9	0.1450 115.4 115.4	2.0590 [ 2.0000 ]	102.9%			
PFTrDA	(663.0 / 619.0) 328703 (663.0 / 169.0) 72666	(10.02, 1.01) (N/A, 0.00, 0.1)	448.8 412.2	0.2211 105.8 105.8	2.0707 [ 2.0000 ]	103.5%			
PFTeDA	(713.0 / 669.0) 282000 (713.0 / 169.0) 44360	(10.12, 1.00) (0.00, N/A, -0.2)	672.9 246.1	0.1573 69.3 69.3	1.7770 [ 2.0000 ]	88.9%			

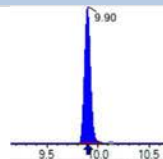
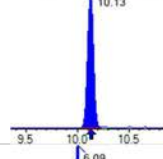
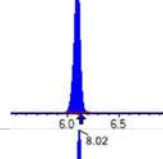
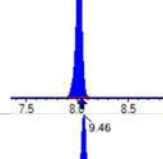
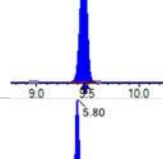
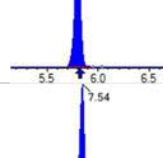
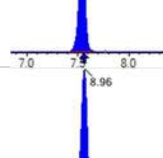
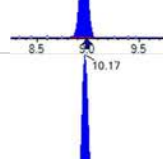
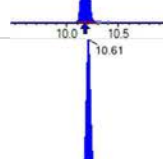
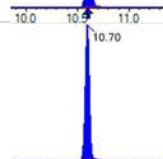

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 383094 (298.9 / 99.0) 230885	(6.10, 1.00) (0.00, N/A, 0.0)	1143.7 681.8	0.6027 88.6 88.6	1.6715 [ 1.7695 ]	94.5%			
PFPeS	(349.0 / 80.0) 711562 (349.0 / 99.0) 257400	(7.14, 0.89) (N/A, -0.02, -0.1)	901.4 718.3	0.3617 96.9 96.9	1.7932 [ 1.8768 ]	95.5%			
PFHxS	(399.0 / 80.0) 560373 (399.0 / 99.0) 190166	(8.02, 1.00) (0.00, N/A, 0.4)	3864.8 8095.6	0.3394 99.0 99.0	1.6658 [ 1.8220 ]	91.4%			
PFHpS	(449.0 / 80.0) 521331 (449.0 / 99.0) 137216	(8.79, 0.93) (N/A, -0.02, 0.1)	550.7 339.3	0.2632 89.7 89.7	1.7642 [ 1.9028 ]	92.7%			
PFOS	(499.0 / 80.0) 592867 (499.0 / 99.0) 144768	(9.46, 1.00) (0.00, N/A, 0.0)	113.1 153.6	0.2442 106.8 106.8	1.6183 [ 1.8550 ]	87.2%			
PFNS	(549.0 / 80.0) 878938 (549.0 / 99.0) 243545	(9.77, 1.03) (N/A, 0.00, 0.0)	771.5 552.6	0.2771 111.0 111.0	2.0864 [ 1.9198 ]	108.7%			
PFDS	(599.0 / 80.0) 983659 (599.0 / 99.0) 219204	(9.91, 1.05) (N/A, 0.00, -0.1)	917.3 498.8	0.2228 87.4 87.4	1.8923 [ 1.9262 ]	98.2%			
PFDoS	(698.9 / 80.0) 527876 (698.9 / 99.0) 142206	(10.11, 1.07) (N/A, 0.00, 0.0)	688.0 492.6	0.2694 131.1 131.1	1.9455 [ 1.9391 ]	100.3%			
4:2FTS	(327.0 / 307.0) 523943 (327.0 / 81.0) 307103	(5.80, 1.00) (0.00, N/A, -0.3)	773.1 769.4	0.5861 117.2 117.2	6.9435 [ 7.4762 ]	92.9%			
6:2FTS	(427.0 / 407.0) 319439 (427.0 / 81.0) 236186	(7.54, 1.00) (0.00, N/A, 0.4)	772.8 539.7	0.7394 103.2 103.2	7.4815 [ 7.5923 ]	98.5%			
8:2FTS	(527.0 / 507.0) 281651 (527.0 / 81.0) 195401	(8.96, 1.00) (0.00, N/A, 0.0)	410.9 335.4	0.6938 98.6 98.6	8.6205 [ 7.6663 ]	112.4%			

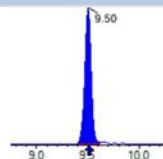
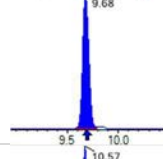
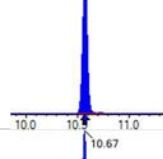
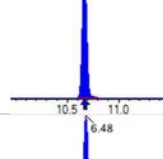
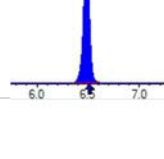
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 900097 (498.0 / 478.0) 20099	(10.18, 1.00) (0.00, N/A, 0.2)	629.5 164.2	0.0223 94.5 94.5	1.8061 [2.0000]	90.3%			
NMeFOSA	(511.9 / 219.0) 790105 (511.9 / 169.0) 495567	(10.61, 1.00) (0.00, N/A, 0.0)	1198.6 965.2	0.6272 90.0 90.0	7.9490 [8.0000]	99.4%			
NEIFOSA	(526.0 / 219.0) 838886 (526.0 / 169.0) 866754	(10.70, 1.00) (0.00, N/A, 0.1)	1089.2 756.0	1.0332 91.7 91.7	7.3594 [8.0000]	92.0%			
NMeFOSAA	(570.0 / 419.0) 139191 (570.0 / 483.0) 65677	(9.51, 1.00) (0.00, N/A, -0.1)	131.5 225.9	0.4718 100.5 100.5	2.5335 [2.0000]	126.7%			
NEIFOSAA	(584.0 / 419.0) 135998 (584.0 / 526.0) 79600	(9.69, 1.00) (0.01, N/A, 0.2)	447.7 1284480.7	0.5853 76.0 76.0	2.0928 [2.0000]	104.6%			
NMeFOSE	(616.1 / 59.0) 226373	(10.58, 1.00) (0.01, N/A, 0.0)	685.9	N/A 0.0 0.0	7.3307 [8.0000]	91.6%			
NEtFOSE	(630.0 / 59.0) 60757	(10.68, 1.00) (0.01, N/A, 0.0)	857.3	N/A 0.0 0.0	7.5190 [8.0000]	94.0%			
HFPO-DA	(285.0 / 169.0) 217120 (285.0 / 185.0) 661671	(6.48, 1.00) (0.00, N/A, 0.0)	711.4 1261.6	3.0475 119.5 119.5	3.4537 [4.0000]	86.3%			
ADONA	(377.0 / 85.0) 944805 (377.0 / 251.0) 113587	(7.39, 1.14) (N/A, -0.02, -0.1)	894.2 338.3	0.1202 95.9 95.9	3.6253 [3.7708]	96.1%			
9CI-Pf3ONS	(531.0 / 351.0) 2822359 (533.0 / 353.0) 926029	(9.72, 1.50) (N/A, 0.00, 0.0)	793.6 992.0	0.3281 103.6 103.6	3.8189 [3.7330]	102.3%			
11CI-PF3OUDS	(631.0 / 451.0) 1911812 (633.0 / 453.0) 644388	(10.01, 1.54) (N/A, 0.00, 0.2)	934.0 668.4	0.3371 115.2 115.2	3.9258 [3.7728]	104.1%			



Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 28936 (241.0 / 117.0) 48469	(4.46, 0.90) (N/A, -0.03, -0.1)	620.6 500.5	1.6750 0.1 101.2	7.5106 [ 8.0000 ]	93.9%			IR1,
5:3FTCA	(341.0 / 236.7) 214375 (341.0 / 217.0) 365909	(6.77, 1.10) (N/A, -0.03, 0.1)	440.6 640.7	1.7069 108.0 108.0	6.8413 [ 8.0000 ]	85.5%			
7:3FTCA	(441.0 / 317.0) 250535 (441.0 / 337.0) 198792	(8.59, 1.40) (N/A, -0.02, 0.0)	305.9 449.5	0.7935 97.6 97.6	7.0846 [ 8.0000 ]	88.6%			
PFEESA	(315.0 / 135.0) 497564 (315.0 / 83.0) 153458	(6.60, 1.08) (N/A, -0.03, 0.0)	859.2 634.5	0.3084 109.1 109.1	3.1485 [ 3.5698 ]	88.2%			
PFMPA	(229.0 / 85.0) 87603	(4.18, 0.84) (N/A, -0.03, 0.0)	885.8	N/A 0.0 0.0	3.6132 [ 4.0000 ]	90.3%			
PFMBA	(279.0 / 85.0) 307173	(5.37, 1.08) (N/A, -0.03, 0.0)	995.4	N/A 0.0 0.0	3.8810 [ 4.0000 ]	97.0%			
NFDHA	(201.0 / 85.0) 11374 (295.0 / 201.0) 84927	(6.02, 0.98) (N/A, -0.02, 0.1)	221.0 586.5	7.4668 0.9 90.6	3.6359 [ 4.0000 ]	90.9%			IR1,
13C3_PFBA_IIS	(216.0 / 172.0) 78497	(3.68, N/A) (N/A, -0.03, N/A)	917.8	N/A	0.8978 [ 1.0000 ]	89.8% { 85.1% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 131635	(6.14, N/A) (N/A, -0.03, N/A)	393.0	N/A	1.0005 [ 1.0000 ]	100.0% { 104.6% }			
13C4_PFOA_IIS	(417.0 / 372.0) 120005	(7.88, N/A) (N/A, -0.02, N/A)	715.8	N/A	0.9587 [ 1.0000 ]	95.9% { 94.3% }			
13C5_PFNxA_IIS	(468.0 / 423.0) 92103	(8.63, N/A) (N/A, -0.01, N/A)	401.4	N/A	0.9227 [ 1.0000 ]	92.3% { 83.8% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 94070	(9.31, N/A) (N/A, -0.01, N/A)	400.7	N/A	0.9071 [ 1.0000 ]	90.7% { 95.7% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 230548	(8.02, N/A) (N/A, -0.02, N/A)	724.1	N/A	0.9745 [ 1.0000 ]	97.4% { 91.2% }			
13C4_PFOS_IIS	(502.8 / 79.9) 172200	(9.46, N/A) (N/A, -0.01, N/A)	423.7	N/A	0.8583 [ 1.0000 ]	85.8% { 78.0% }			
13C4_PFBA_EIS	(217.0 / 172.0) 759298	(3.68, N/A) (N/A, -0.03, N/A)	962.5	N/A	9.3430 [ 8.0000 ]	116.8% { 104.7% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 396871	(4.98, N/A) (N/A, -0.03, N/A)	925.9	N/A	4.0952 [ 4.0000 ]	102.4% { 105.2% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 339237	(6.13, N/A) (N/A, -0.03, N/A)	788.2	N/A	2.1892 [ 2.0000 ]	109.5% { 111.9% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 288817	(7.07, N/A) (N/A, -0.03, N/A)	717.3	N/A	2.1096 [ 2.0000 ]	105.5% { 105.4% }			
13C8_PFOA_EIS	(421.0 / 376.0) 277862	(7.88, N/A) (N/A, -0.02, N/A)	461.2	N/A	2.0954 [ 2.0000 ]	104.8% { 109.7% }			
13C9_PFNA_EIS	(472.0 / 427.0) 111568	(8.63, N/A) (N/A, -0.02, N/A)	379.1	N/A	1.1090 [ 1.0000 ]	110.9% { 106.7% }			
13C6_PFDA_EIS	(519.0 / 474.0) 150163	(9.31, N/A) (N/A, -0.02, N/A)	453.7	N/A	1.1780 [ 1.0000 ]	117.8% { 105.3% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 214447	(9.72, N/A) (N/A, 0.00, N/A)	313.2	N/A	1.1684 [ 1.0000 ]	116.8% { 114.6% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 240138	(9.90, N/A) (N/A, 0.00, N/A)	469.9	N/A	1.1602 [ 1.0000 ]	116.0% { 111.3% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 165812	(10.13, N/A) (N/A, 0.00, N/A)	438.8	N/A	1.3181 [ 1.0000 ]	131.8% { 137.1% }			
13C3_PFBs_EIS	(302.0 / 80.0) 839167	(6.09, N/A) (N/A, -0.03, N/A)	803.0	N/A	2.2287 [ 2.0000 ]	111.4% { 110.5% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 423038	(8.02, N/A) (N/A, -0.02, N/A)	945.7	N/A	2.1664 [ 2.0000 ]	108.3% { 109.8% }			
13C8_PFOS_EIS	(507.0 / 80.0) 666640	(9.46, N/A) (N/A, -0.01, N/A)	385.6	N/A	2.3567 [ 2.0000 ]	117.8% { 99.8% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 94644	(5.80, N/A) (N/A, -0.03, N/A)	613.8	N/A	4.4577 [ 4.0000 ]	111.4% { 107.3% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 110613	(7.54, N/A) (N/A, -0.02, N/A)	792.5	N/A	4.0653 [ 4.0000 ]	101.6% { 103.5% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 89162	(8.96, N/A) (N/A, -0.02, N/A)	319.2	N/A	3.6552 [ 4.0000 ]	91.4% { 94.4% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 1001427	(10.17, N/A) (N/A, 0.00, N/A)	701.0	N/A	2.4326 [ 2.0000 ]	121.6% { 102.9% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 249162	(10.61, N/A) (N/A, 0.00, N/A)	1282.0	N/A	2.4295 [ 2.0000 ]	121.5% { 103.8% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 250001	(10.70, N/A) (N/A, 0.00, N/A)	1064.9	N/A	2.6105 [ 2.0000 ]	130.5% { 108.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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) 303229	(9.50, N/A) (N/A, -0.01, N/A)	346.8	N/A	4.5699 [ 4.0000 ]	114.2% { 106.4% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 288361	(9.68, N/A) (N/A, -0.01, N/A)	414.5	N/A	5.2290 [ 4.0000 ]	130.7% { 112.6% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 485026	(10.57, N/A) (N/A, 0.00, N/A)	905.0	N/A	24.5859 [ 20.0000 ]	122.9% { 96.8% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 253167	(10.67, N/A) (N/A, 0.00, N/A)	990.4	N/A	23.8312 [ 20.0000 ]	119.2% { 95.6% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 823081	(6.48, N/A) (N/A, -0.03, N/A)	981.0	N/A	8.7238 [ 8.0000 ]	109.0% { 110.7% }			

**LOW-CONCENTRATION CALIBRATION VERIFICATION****EPA 1633****Laboratory:** APPL, LLC**SDG:****Client:** AECOM**Project:** Red Hill AFFF Assessment Sampling**Calibration:** 2251013**Laboratory ID:** SB03835-LCV1**Sequence:** SB03835**Standard ID:** 22L0176

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
PFBA	0.400	0.384	-4.1	30.00
PFPEA	0.200	0.224	11.8	30.00
PFHXA	0.100	0.111	11.4	30.00
PFHPA	0.100	0.116	16.4	30.00
PFOA	0.100	0.135	34.8 *	30.00
PFNA	0.100	0.0925	-7.5	30.00
PFDA	0.100	0.116	15.5	30.00
PFUnA	0.100	0.0828	-17.2	30.00
PFDOA	0.100	0.0982	-1.8	30.00
PFTRDA	0.100	0.0889	-11.1	30.00
PFTEDA	0.100	0.0951	-4.9	30.00
PFBS	0.0885	0.0865	-2.3	30.00
PFPEs	0.0940	0.108	14.4	30.00
PFHXS	0.0915	0.107	16.4	30.00
PFHPS	0.0955	0.108	13.4	30.00
PFOS	0.0930	0.102	9.8	30.00
PFNS	0.0960	0.124	29.1	30.00
PFDS	0.0965	0.0954	-1.1	30.00
PFDOS	0.0970	0.102	4.9	30.00
4:2FTS	0.375	0.360	-4.0	30.00
6:2FTS	0.380	0.377	-0.8	30.00
8:2FTS	0.384	0.486	26.7	30.00
PFOSA	0.100	0.119	18.7	30.00
NMeFOSA	0.400	0.447	11.9	30.00
NEtFOSA	0.400	0.395	-1.1	30.00
NMeFOSAA	0.100	0.109	9.1	30.00
NEtFOSAA	0.100	0.0995	-0.5	30.00
NMeFOSE	0.400	0.477	19.2	30.00

**LOW-CONCENTRATION CALIBRATION VERIFICATION****EPA 1633****Laboratory:** APPL, LLC**SDG:****Client:** AECOM**Project:** Red Hill AFFF Assessment Sampling**Calibration:** 2251013**Laboratory ID:** SB03835-LCV1**Sequence:** SB03835**Standard ID:** 22L0176

NEFOSE	0.400	0.381	-4.7	30.00
HFPO-DA	0.200	0.244	22.0	30.00
ADONA	0.189	0.220	16.6	30.00
PFEESA	0.178	0.174	-2.1	30.00
PFMPA	0.200	0.230	14.8	30.00
PFMBA	0.200	0.221	10.6	30.00
NFDHA	0.200	0.499	150 *	30.00
9CL-PF3ONS	0.187	0.221	18.2	30.00
11CL-PF3OUDS	0.189	0.226	19.4	30.00
3:3FTCA	0.400	0.329	-17.7	30.00
5:3FTCA	0.400	0.387	-3.2	30.00
7:3FTCA	0.400	0.498	24.6	30.00

\* Values outside of QC limits



Chemist: DAG  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03835-LCV1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - 2022-12-13  
 Path: S2022-12-14AS2022-12-14A03.wiff-  
 Acquired: 2022/12/14 - 11:08

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	(212.9 / 169.0) 20109	(3.74, 1.00) (-0.01, N/A, 0.0)	37.6	N/A 0.0 0.0	0.3836 [0.4000]	95.9%			
PFPeA	(262.9 / 219.0) 15029 (262.9 / 69.0) 191	(5.06, 1.00) (0.01, N/A, -0.3)	136.8 13.6	0.0127 101.1 108.1	0.2236 [0.2000]	111.8%			
PFHxA	(313.0 / 269.0) 11403 (313.0 / 119.0) 1181	(6.19, 1.00) (0.00, N/A, -0.9)	65.1 35.6	0.1035 111.8 97.2	0.1114 [0.1000]	111.4%			
PFHpA	(363.0 / 319.0) 11854 (363.0 / 169.0) 2843	(7.12, 1.00) (0.00, N/A, 0.0)	63.6 60.1	0.2398 77.1 74.1	0.1164 [0.1000]	116.4%			
PFOA	(413.0 / 369.0) 14374 (413.0 / 169.0) 3385	(7.94, 1.00) (0.00, N/A, 0.0)	45.6 62.9	0.2355 70.2 80.8	0.1348 [0.1000]	134.8%			QC,
PFNA	(463.0 / 419.0) 6566 (463.0 / 169.0) 1906	(8.69, 1.00) (0.01, N/A, -0.4)	23.5 35.9	0.2903 165.4 142.4	0.0925 [0.1000]	92.5%			IR2,
PFDA	(513.0 / 469.0) 13597 (513.0 / 169.0) 1403	(9.36, 1.00) (0.00, N/A, -0.4)	39.8 108.1	0.1032 102.5 78.7	0.1155 [0.1000]	115.5%			
PFUnA	(563.0 / 519.0) 12011 (563.0 / 169.0) 1556	(9.74, 1.00) (0.00, N/A, -0.8)	56.9 184.3	0.1296 141.5 149.2	0.0828 [0.1000]	82.8%			
PFDoA	(613.0 / 569.0) 15762 (613.0 / 169.0) 2864	(9.90, 1.00) (-0.01, N/A, -2.1)	74.7 63.0	0.1817 141.8 127.6	0.0982 [0.1000]	98.2%			
PFTrDA	(663.0 / 619.0) 11758 (663.0 / 169.0) 1575	(10.04, 1.01) (N/A, 0.01, 1.1)	63.1 44.7	0.1340 61.0 58.1	0.0889 [0.1000]	88.9%			
PFTeDA	(713.0 / 669.0) 11415 (713.0 / 169.0) 2492	(10.15, 1.00) (0.01, N/A, 1.0)	67.8 32.3	0.2183 117.3 124.4	0.0951 [0.1000]	95.1%			



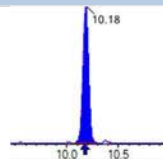
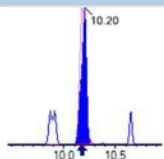
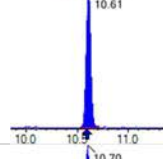
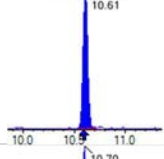
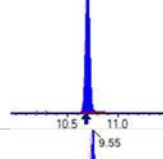
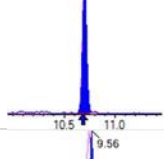
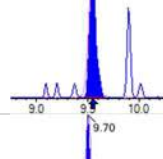
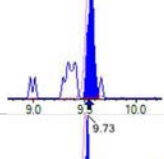
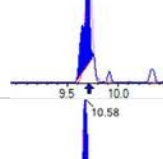
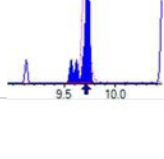
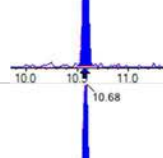
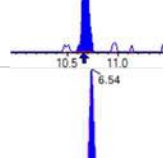
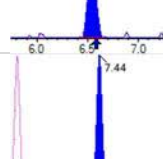
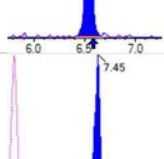
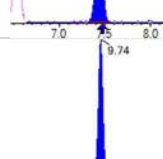
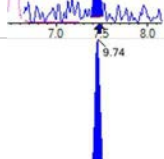
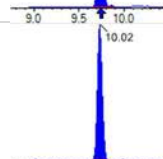
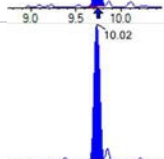

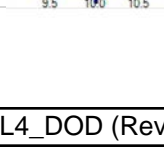
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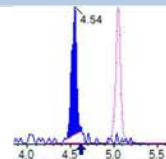
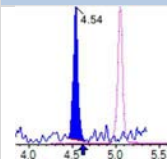
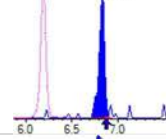
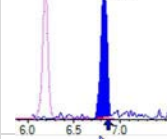
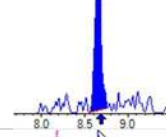
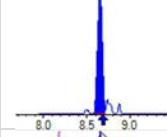
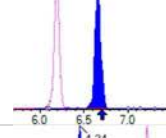
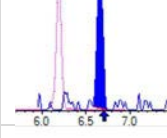
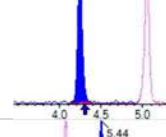
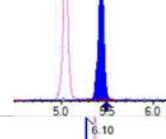
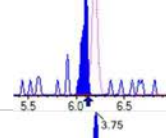
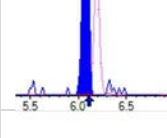
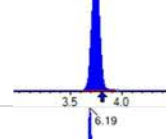
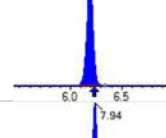
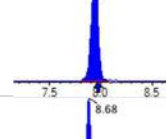
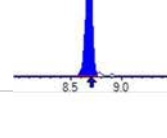
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Acquisition Method: 1633 2022-12-13.dam

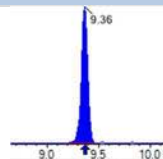
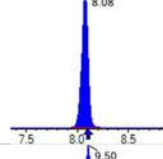
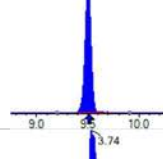
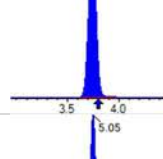
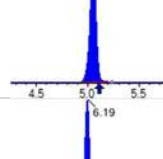
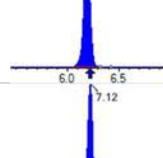
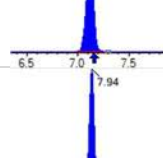
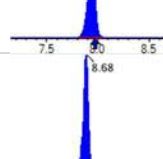
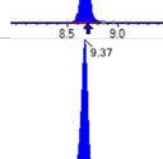
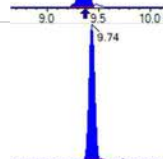

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n  
Acquired: 2022/12/14 - 11:08

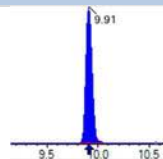
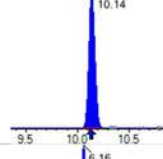
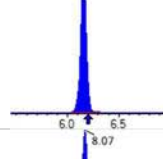
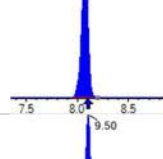
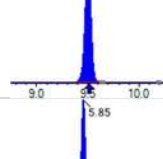
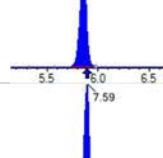
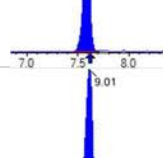
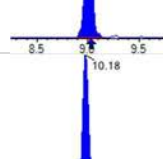
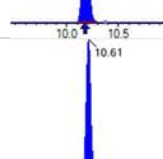
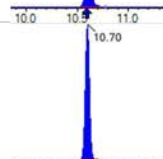

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 15999 (298.9 / 99.0) 12304	(6.15, 1.00) (0.00, N/A, -0.4)	177.1 113.9	0.7690 106.8 115.7	0.0865 [0.0885]	97.7%			
PFPeS	(349.0 / 80.0) 31980 (349.0 / 99.0) 10287	(7.20, 0.89) (N/A, 0.02, 0.3)	246.6 82.7	0.3217 85.9 85.9	0.1075 [0.0938]	114.6%			
PFHxS	(399.0 / 80.0) 28922 (399.0 / 99.0) 9793	(8.08, 1.00) (0.00, N/A, -0.2)	1679840.9 315.4	0.3386 105.0 97.9	0.1065 [0.0911]	117.0%			MI5 DG 2022-12-14
PFHpS	(449.0 / 80.0) 28278 (449.0 / 99.0) 4781	(8.85, 0.93) (N/A, 0.02, 0.5)	198.2 188.7	0.1691 55.1 56.6	0.1083 [0.0951]	113.9%			
PFOS	(499.0 / 80.0) 32389 (499.0 / 99.0) 7435	(9.50, 1.00) (0.00, N/A, -1.1)	45118.5 3711.0	0.2295 100.0 90.0	0.1021 [0.0927]	110.1%			
PFNS	(549.0 / 80.0) 48440 (549.0 / 99.0) 9930	(9.78, 1.03) (N/A, 0.00, 0.3)	151.3 78.1	0.2050 79.1 86.6	0.1239 [0.0960]	129.1%			
PFDS	(599.0 / 80.0) 49029 (599.0 / 99.0) 9548	(9.93, 1.05) (N/A, 0.01, 0.5)	166.8 37.8	0.1947 86.5 78.9	0.0954 [0.0963]	99.1%			
PFDoS	(698.9 / 80.0) 26450 (698.9 / 99.0) 6933	(10.12, 1.07) (N/A, 0.01, -0.1)	204.1 61.0	0.2621 129.5 129.9	0.1018 [0.0970]	105.0%			
4:2FTS	(327.0 / 307.0) 21916 (327.0 / 81.0) 11978	(5.86, 1.00) (0.00, N/A, 0.3)	332.8 130.1	0.5466 90.1 95.7	0.3600 [0.3738]	96.3%			
6:2FTS	(427.0 / 407.0) 13821 (427.0 / 81.0) 10675	(7.59, 1.00) (0.00, N/A, -0.1)	84.5 63.8	0.7724 118.9 104.1	0.3770 [0.3796]	99.3%			
8:2FTS	(527.0 / 507.0) 12439 (527.0 / 81.0) 5906	(9.01, 1.00) (0.00, N/A, 0.2)	244.7 118.2	0.4748 75.7 69.0	0.4864 [0.3833]	126.9%			



Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 44217 (498.0 / 478.0) 1814	(10.18, 1.00) (0.00, N/A, -1.0)	242.7 216.9	0.0410 180.3 148.5	0.1187 [0.1000]	118.7%			
NMeFOSA	(511.9 / 219.0) 34642 (511.9 / 169.0) 22030	(10.61, 1.00) (0.00, N/A, 0.1)	411.0 397.1	0.6359 99.7 99.7	0.4475 [0.4000]	111.9%			
NEIFOSA	(526.0 / 219.0) 34357 (526.0 / 169.0) 36474	(10.70, 1.00) (0.00, N/A, 0.1)	667.1 307.1	1.0616 99.4 97.7	0.3954 [0.4000]	98.9%			
NMeFOSAA	(570.0 / 419.0) 5136 (570.0 / 483.0) 3229	(9.55, 1.00) (0.01, N/A, -0.9)	268.8 1473.3	0.6286 109.5 120.3	0.1091 [0.1000]	109.1%			
NEIFOSAA	(584.0 / 419.0) 5072 (584.0 / 526.0) 2650	(9.70, 1.00) (-0.01, N/A, -1.6)	12.6 1575.4	0.5225 92.2 88.7	0.0995 [0.1000]	99.5%			
NMeFOSE	(616.1 / 59.0) 11091	(10.58, 1.00) (0.01, N/A, 0.0)	145.4	N/A 0.0 0.0	0.4768 [0.4000]	119.2%			
NEtFOSE	(630.0 / 59.0) 2508	(10.68, 1.00) (0.01, N/A, 0.0)	105.2	N/A 0.0 0.0	0.3812 [0.4000]	95.3%			
HFPO-DA	(285.0 / 169.0) 11031 (285.0 / 185.0) 27019	(6.54, 1.00) (0.00, N/A, -0.3)	222.3 166.1	2.4493 93.1 83.5	0.2439 [0.2000]	122.0%			
ADONA	(377.0 / 85.0) 42516 (377.0 / 251.0) 4910	(7.44, 1.14) (N/A, 0.01, -0.9)	364.4 29.5	0.1155 97.9 107.5	0.2205 [0.1885]	116.9%			
9CI-Pf3ONS	(531.0 / 351.0) 120854 (533.0 / 353.0) 46846	(9.74, 1.49) (N/A, 0.01, 0.1)	327.7 163.2	0.3876 133.7 124.4	0.2210 [0.1867]	118.4%			
11CI-PF3OUDS	(631.0 / 451.0) 79106 (633.0 / 453.0) 22526	(10.02, 1.53) (N/A, 0.00, -0.2)	2282.5 332.4	0.2848 90.3 82.2	0.2257 [0.1886]	119.7%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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) 930 (241.0 / 117.0) 2221	(4.54, 0.90) (N/A, 0.03, 0.4)	12.0 46.8	2.3886 145.7 130.2	0.3292 [0.4000]	82.3%			
5:3FTCA	(341.0 / 236.7) 7936 (341.0 / 217.0) 17540	(6.83, 1.10) (N/A, 0.02, 0.1)	94.5 72.7	2.2102 140.2 142.9	0.3873 [0.4000]	96.8%			
7:3FTCA	(441.0 / 317.0) 12772 (441.0 / 337.0) 12380	(8.65, 1.40) (N/A, 0.02, 0.0)	32.0 106.3	0.9694 115.7 119.5	0.4982 [0.4000]	124.6%			
PFEESA	(315.0 / 135.0) 19434 (315.0 / 83.0) 4936	(6.66, 1.08) (N/A, 0.01, -0.2)	290.1 44.8	0.2540 82.8 82.8	0.1743 [0.1785]	97.6%			
PFMPA	(229.0 / 85.0) 4191	(4.24, 0.84) (N/A, 0.02, 0.0)	207.0	N/A 0.0 0.0	0.2297 [0.2000]	114.8%			
PFMBA	(279.0 / 85.0) 13508	(5.44, 1.08) (N/A, 0.02, 0.0)	366.4	N/A 0.0 0.0	0.2212 [0.2000]	110.6%			
NFDHA	(201.0 / 85.0) 1294 (295.0 / 201.0) 4855	(6.10, 0.99) (N/A, 0.04, 1.6)	34.5 78.3	3.7532 57.0 51.8	0.4991 [0.2000]	249.6%			QC,
13C3_PFBA_IIS	(216.0 / 172.0) 98277	(3.75, N/A) (N/A, 0.03, N/A)	747.6	N/A	0.8100 [1.0000]	81.0% {102.1%}			
13C2_PFHxA_IIS	(315.1 / 270.0) 159168	(6.19, N/A) (N/A, 0.01, N/A)	731.3	N/A	0.8722 [1.0000]	87.2% {90.9%}			
13C4_PFOA_IIS	(417.0 / 372.0) 146557	(7.94, N/A) (N/A, 0.02, N/A)	585.2	N/A	0.8396 [1.0000]	84.0% {101.1%}			
13C5_PFNxA_IIS	(468.0 / 423.0) 109385	(8.68, N/A) (N/A, 0.01, N/A)	456.1	N/A	0.8050 [1.0000]	80.5% {93.3%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 125383	(9.36, N/A) (N/A, 0.02, N/A)	381.6	N/A	0.9036 [ 1.0000 ]	90.4% { 95.7% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 267732	(8.08, N/A) (N/A, 0.02, N/A)	714.4	N/A	0.8296 [ 1.0000 ]	83.0% { 94.5% }			
13C4_PFOS_IIS	(502.8 / 79.9) 232394	(9.50, N/A) (N/A, 0.01, N/A)	400.6	N/A	0.9229 [ 1.0000 ]	92.3% { 91.3% }			
13C4_PFBA_EIS	(217.0 / 172.0) 596994	(3.74, N/A) (N/A, 0.03, N/A)	898.0	N/A	7.9692 [ 8.0000 ]	99.6% { 93.2% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 302908	(5.05, N/A) (N/A, 0.02, N/A)	782.5	N/A	3.4365 [ 4.0000 ]	85.9% { 92.7% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 231091	(6.19, N/A) (N/A, 0.02, N/A)	606.3	N/A	1.7228 [ 2.0000 ]	86.1% { 83.5% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 220086	(7.12, N/A) (N/A, 0.02, N/A)	510.6	N/A	1.8901 [ 2.0000 ]	94.5% { 94.7% }			
13C8_PFOA_EIS	(421.0 / 376.0) 213427	(7.94, N/A) (N/A, 0.02, N/A)	1047.2	N/A	1.8992 [ 2.0000 ]	95.0% { 92.1% }			
13C9_PFNA_EIS	(472.0 / 427.0) 77865	(8.68, N/A) (N/A, 0.02, N/A)	380.7	N/A	0.9239 [ 1.0000 ]	92.4% { 75.7% }			
13C6_PFDA_EIS	(519.0 / 474.0) 116397	(9.37, N/A) (N/A, 0.02, N/A)	395.8	N/A	0.9680 [ 1.0000 ]	96.8% { 95.3% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 167272	(9.74, N/A) (N/A, 0.01, N/A)	344.0	N/A	1.0128 [ 1.0000 ]	101.3% { 95.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 185268	(9.91, N/A) (N/A, 0.01, N/A)	365.0	N/A	0.9122 [ 1.0000 ]	91.2% { 88.6% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 131335	(10.14, N/A) (N/A, 0.01, N/A)	339.3	N/A	1.0299 [ 1.0000 ]	103.0% { 97.4% }			
13C3_PFBs_EIS	(302.0 / 80.0) 655051	(6.16, N/A) (N/A, 0.01, N/A)	781.4	N/A	2.1264 [ 2.0000 ]	106.3% { 96.3% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 338017	(8.07, N/A) (N/A, 0.01, N/A)	889.9	N/A	1.9497 [ 2.0000 ]	97.5% { 89.6% }			
13C8_PFOS_EIS	(507.0 / 80.0) 576970	(9.50, N/A) (N/A, 0.01, N/A)	360.7	N/A	1.9941 [ 2.0000 ]	99.7% { 96.9% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 74685	(5.85, N/A) (N/A, 0.02, N/A)	524.3	N/A	4.1481 [ 4.0000 ]	103.7% { 99.8% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 89978	(7.59, N/A) (N/A, 0.01, N/A)	471.0	N/A	4.0873 [ 4.0000 ]	102.2% { 89.2% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 71825	(9.01, N/A) (N/A, 0.01, N/A)	308.0	N/A	3.2702 [ 4.0000 ]	81.8% { 74.0% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 759574	(10.18, N/A) (N/A, 0.01, N/A)	832.6	N/A	1.7355 [ 2.0000 ]	86.8% { 86.0% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 186100	(10.61, N/A) (N/A, 0.01, N/A)	757.9	N/A	1.6565 [ 2.0000 ]	82.8% { 79.6% }			
D5_NeIFOSA_EIS	(531.1 / 169.0) 187990	(10.70, N/A) (N/A, 0.01, N/A)	702.8	N/A	1.9287 [ 2.0000 ]	96.4% { 99.3% }			



Chemist: DAG  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03835-LCV1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - 2022-12-13  
 Path: S2022-12-14AS2022-12-14A03.wiff-  
 n  
 Acquired: 2022/12/14 - 11:08

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT- CV[min], ΔRT ion[s])	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 ) 243624	( 9.54, N/A ) ( N/A, 0.01, N/A )	426.5	N/A	3.5574 [ 4.0000 ]	88.9% { 96.0% }			
D5_EtFOSAA_EIS	( 589.0 / 419.0 ) 234337	( 9.71, N/A ) ( N/A, 0.01, N/A )	405.2	N/A	3.7816 [ 4.0000 ]	94.5% { 95.4% }			
D7_NMeFOSE_EIS	( 623.2 / 58.9 ) 344810	( 10.57, N/A ) ( N/A, 0.01, N/A )	935.8	N/A	16.0098 [ 20.0000 ]	80.0% { 84.9% }			
D9_NEtFOSE_EIS	( 639.2 / 58.9 ) 194511	( 10.67, N/A ) ( N/A, 0.01, N/A )	1337.3	N/A	18.0237 [ 20.0000 ]	90.1% { 89.1% }			
13C3_HFPODA_EIS	( 287.0 / 169.0 ) 584998	( 6.54, N/A ) ( N/A, 0.01, N/A )	885.2	N/A	7.1197 [ 8.0000 ]	89.0% { 88.0% }			

# LOW-CONCENTRATION CALIBRATION VERIFICATION

## EPA 1633

Laboratory: APPL, LLC

SDG:

Client: AECOM

Project: Red Hill AFFF Assessment Sampling

Calibration: 2251019

Laboratory ID: SB03903-LCV1

Sequence: SB03903

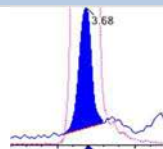
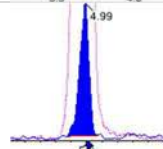
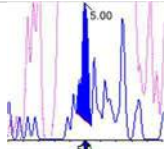
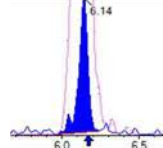
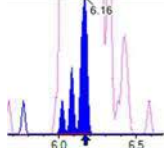
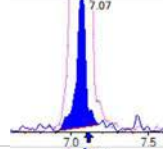
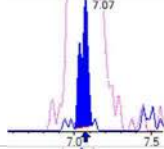
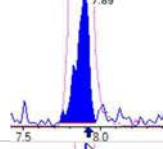
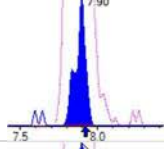
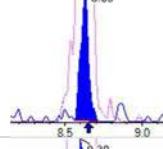
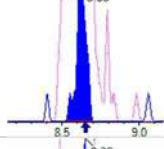
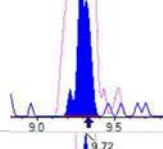
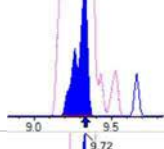
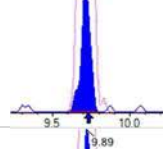
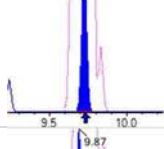
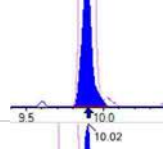
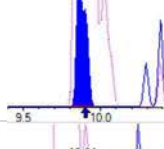
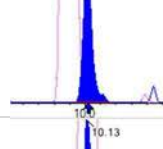
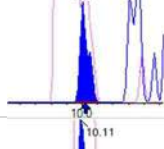
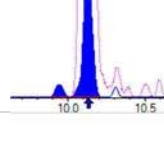
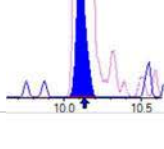
Standard ID: 22L0300

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
PFBA	0.400	0.409	2.2	30.00
PFPEA	0.200	0.186	-7.2	30.00
PFHXA	0.100	0.116	16.2	30.00
PFHPA	0.100	0.128	27.8	30.00
PFOA	0.100	0.108	7.8	30.00
PFNA	0.100	0.115	14.6	30.00
PFDA	0.100	0.0719	-28.1	30.00
PFUnA	0.100	0.0814	-18.6	30.00
PFDOA	0.100	0.169	69.2 *	30.00
PFTRDA	0.100	0.0797	-20.3	30.00
PFTEDA	0.100	0.0709	-29.1	30.00
PFBS	0.0885	0.0935	5.7	30.00
PFPEs	0.0940	0.0886	-5.7	30.00
PFHXS	0.0915	0.0893	-2.4	30.00
PFHPS	0.0955	0.0920	-3.7	30.00
PFOS	0.0930	0.0940	1.0	30.00
PFNS	0.0960	0.0926	-3.6	30.00
PFDS	0.0965	0.0922	-4.5	30.00
PFDOS	0.0970	0.0750	-22.6	30.00
4:2FTS	0.375	0.363	-3.1	30.00
6:2FTS	0.380	0.412	8.5	30.00
8:2FTS	0.384	0.363	-5.4	30.00
PFOSA	0.100	0.0839	-16.1	30.00
NMeFOSA	0.400	0.368	-8.0	30.00
NEtFOSA	0.400	0.431	7.9	30.00
NMeFOSAA	0.100	0.0768	-23.2	30.00
NEtFOSAA	0.100	0.124	23.6	30.00
NMeFOSE	0.400	0.505	26.3	30.00

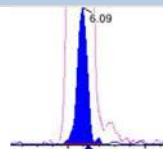
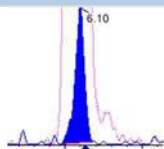
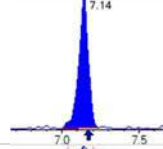
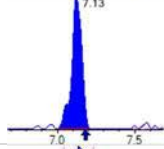
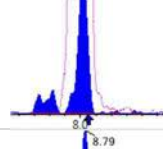
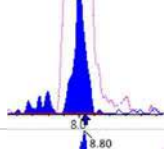
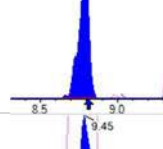
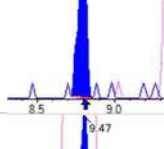
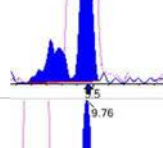
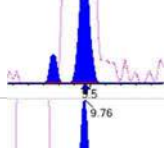
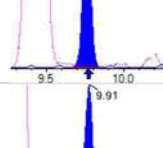
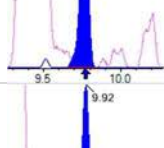
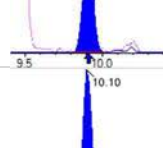

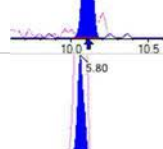
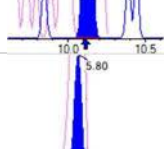
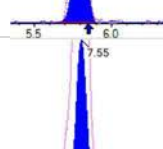
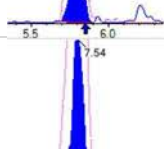
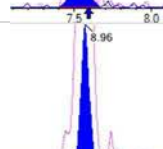
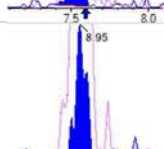

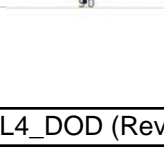
**LOW-CONCENTRATION CALIBRATION VERIFICATION****EPA 1633****Laboratory:** APPL, LLC**SDG:****Client:** AECOM**Project:** Red Hill AFFF Assessment Sampling**Calibration:** 2251019**Laboratory ID:** SB03903-LCV1**Sequence:** SB03903**Standard ID:** 22L0300

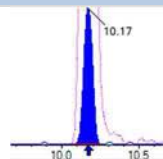
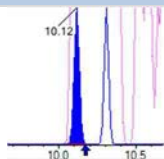
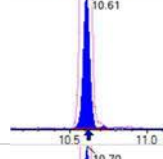
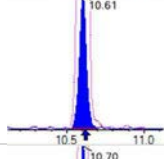
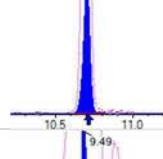
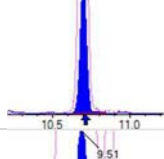
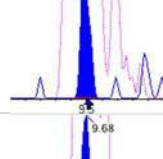
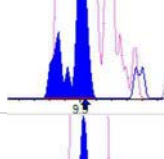
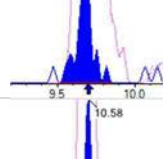
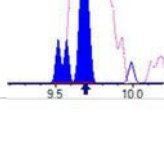
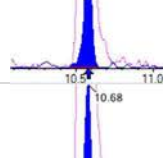
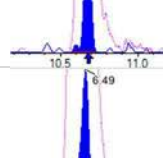
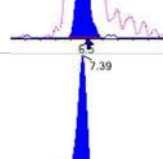
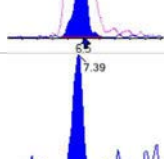
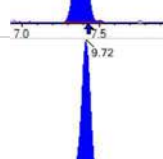
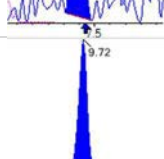
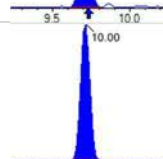
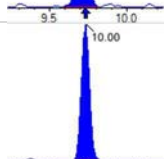

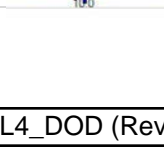
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ADONA	0.189	0.196	3.6	30.00
PFEESA	0.178	0.198	11.1	30.00
PFMPA	0.200	0.216	8.0	30.00
PFMBA	0.200	0.207	3.4	30.00
NFDHA	0.200	0.143	-28.7	30.00
9CL-PF3ONS	0.187	0.164	-12.5	30.00
11CL-PF3OUDS	0.189	0.168	-11.1	30.00
3:3FTCA	0.400	0.283	-29.2	30.00
5:3FTCA	0.400	0.336	-16.0	30.00
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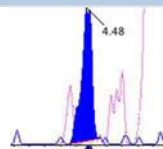
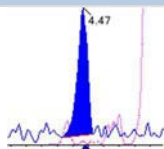
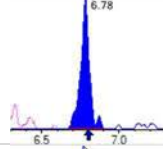
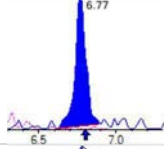
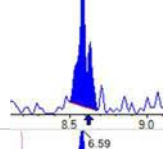
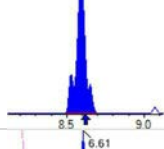
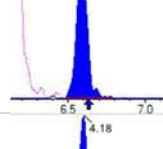
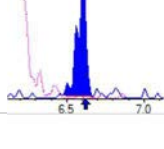
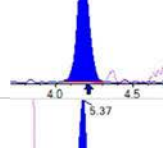
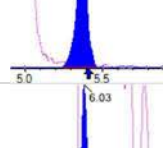
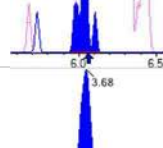
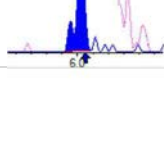
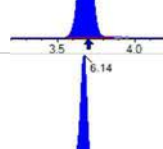
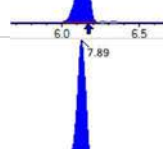
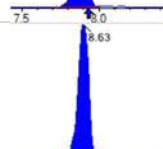

\* Values outside of QC limits

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(212.9 / 169.0) 19382	(3.68, 1.00) (0.00, N/A, 0.0)	34.4	N/A 0.0 0.0	0.4087 [0.4000]	102.2%			
PFPeA	(262.9 / 219.0) 13644 (262.9 / 69.0) 187	(4.99, 1.00) (0.00, N/A, -0.8)	127.6 10.7	0.0137 16083.0 112.9	0.1857 [0.2000]	92.8%			
PFHxA	(313.0 / 269.0) 12692 (313.0 / 119.0) 849	(6.14, 1.00) (0.01, N/A, -1.3)	72.6 155.5	0.0669 68.2 70.4	0.1162 [0.1000]	116.2%			
PFHpA	(363.0 / 319.0) 12337 (363.0 / 169.0) 2184	(7.07, 1.00) (0.00, N/A, 0.0)	55.6 40.2	0.1770 56.6 61.3	0.1278 [0.1000]	127.8%			
PFOA	(413.0 / 369.0) 11278 (413.0 / 169.0) 4016	(7.89, 1.00) (0.01, N/A, -0.3)	45.3 122.5	0.3561 105.7 109.1	0.1078 [0.1000]	107.8%			
PFNA	(463.0 / 419.0) 7908 (463.0 / 169.0) 2242	(8.63, 1.00) (0.00, N/A, 0.1)	61.5 25.8	0.2835 141.3 124.3	0.1146 [0.1000]	114.6%			
PFDA	(513.0 / 469.0) 7227 (513.0 / 169.0) 3728	(9.30, 1.00) (0.00, N/A, -1.5)	30.9 107.2	0.5158 648.3 555.0	0.0719 [0.1000]	71.9%			IR2,
PFUnA	(563.0 / 519.0) 10582 (563.0 / 169.0) 1326	(9.72, 1.00) (0.00, N/A, -0.5)	96.1 54.8	0.1253 111.9 109.1	0.0814 [0.1000]	81.4%			
PFDoA	(613.0 / 569.0) 22860 (613.0 / 169.0) 1675	(9.89, 1.00) (0.00, N/A, 1.1)	127.4 35.5	0.0733 58.4 55.1	0.1692 [0.1000]	169.2%			QC,
PFTrDA	(663.0 / 619.0) 8891 (663.0 / 169.0) 953	(10.02, 1.01) (N/A, -0.01, 0.6)	65.9 6.9	0.1072 51.3 59.5	0.0797 [0.1000]	79.7%			
PFTeDA	(713.0 / 669.0) 7222 (713.0 / 169.0) 4436	(10.13, 1.00) (0.00, N/A, 1.2)	346.9 33.3	0.6142 270.6 289.1	0.0709 [0.1000]	70.9%			IR2,



Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(298.9 / 80.0) 16059 (298.9 / 99.0) 10148	(6.09, 1.00) (0.00, N/A, -0.3)	210.6 89.0	0.6319 92.9 96.5	0.0935 [0.0885]	105.7%			
PFPeS	(349.0 / 80.0) 28912 (349.0 / 99.0) 10555	(7.14, 0.89) (N/A, -0.03, 0.8)	220.3 123.2	0.3651 97.8 81.4	0.0886 [0.0938]	94.4%			
PFHxS	(399.0 / 80.0) 24699 (399.0 / 99.0) 10292	(8.02, 1.00) (0.00, N/A, 0.7)	39349.4 4719.9	0.4167 121.5 118.7	0.0893 [0.0911]	98.0%			
PFHpS	(449.0 / 80.0) 21186 (449.0 / 99.0) 4378	(8.79, 0.93) (N/A, -0.02, -0.4)	344.3 46.1	0.2066 70.4 76.5	0.0920 [0.0951]	96.6%			
PFOS	(499.0 / 80.0) 26843 (499.0 / 99.0) 7561	(9.45, 1.00) (0.00, N/A, -0.8)	67.3 11639.5	0.2817 123.2 124.0	0.0940 [0.0927]	101.3%			
PFNS	(549.0 / 80.0) 30403 (549.0 / 99.0) 7729	(9.76, 1.03) (N/A, -0.01, -0.2)	193.9 1407.9	0.2542 101.9 92.9	0.0926 [0.0960]	96.4%			
PFDS	(599.0 / 80.0) 37362 (599.0 / 99.0) 7934	(9.91, 1.05) (N/A, 0.00, -0.6)	194.8 73.5	0.2124 83.3 98.2	0.0922 [0.0963]	95.7%			
PFDoS	(698.9 / 80.0) 15877 (698.9 / 99.0) 1264	(10.10, 1.07) (N/A, -0.01, -1.5)	222.3 11.5	0.0796 38.8 35.1	0.0750 [0.0970]	77.4%			IR1,
4:2FTS	(327.0 / 307.0) 22908 (327.0 / 81.0) 13728	(5.80, 1.00) (0.00, N/A, -0.1)	298.8 107.3	0.5993 119.9 107.9	0.3633 [0.3738]	97.2%			
6:2FTS	(427.0 / 407.0) 15591 (427.0 / 81.0) 9970	(7.55, 1.00) (0.00, N/A, 0.1)	128.9 68.4	0.6394 89.3 96.7	0.4124 [0.3796]	108.6%			
8:2FTS	(527.0 / 507.0) 10977 (527.0 / 81.0) 7088	(8.96, 1.00) (0.00, N/A, 0.4)	7232.8 68.3	0.6458 91.8 108.9	0.3634 [0.3833]	94.8%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 32849 (498.0 / 478.0) 317	(10.17, 1.00) (0.00, N/A, 3.3)	353.0 45889.7	0.0097 40.9 47.8	0.0839 [0.1000]	83.9%			
NMeFOSA	(511.9 / 219.0) 29155 (511.9 / 169.0) 22552	(10.61, 1.00) (0.00, N/A, 0.2)	292.5 335.4	0.7735 110.9 110.0	0.3680 [0.4000]	92.0%			
NEIFOSA	(526.0 / 219.0) 32586 (526.0 / 169.0) 33953	(10.70, 1.00) (0.00, N/A, 0.2)	555.3 335.7	1.0420 92.5 98.6	0.4314 [0.4000]	107.9%			
NMeFOSAA	(570.0 / 419.0) 3319 (570.0 / 483.0) 4145	(9.49, 1.00) (-0.01, N/A, -1.3)	511.9 30.9	1.2487 265.9 274.9	0.0768 [0.1000]	76.8%			IR2.
NEIFOSAA	(584.0 / 419.0) 6054 (584.0 / 526.0) 4271	(9.68, 1.00) (0.00, N/A, 0.0)	70.4 242.8	0.7054 91.6 137.2	0.1236 [0.1000]	123.6%			
NMeFOSE	(616.1 / 59.0) 11695	(10.58, 1.00) (0.01, N/A, 0.0)	157.0	N/A 0.0 0.0	0.5053 [0.4000]	126.3%			
NEtFOSE	(630.0 / 59.0) 2982	(10.68, 1.00) (0.01, N/A, 0.0)	93.7	N/A 0.0 0.0	0.5042 [0.4000]	126.1%			
HFPO-DA	(285.0 / 169.0) 9931 (285.0 / 185.0) 30743	(6.49, 1.00) (0.01, N/A, 0.4)	189.3 215.2	3.0958 121.4 110.8	0.2007 [0.2000]	100.3%			
ADONA	(377.0 / 85.0) 40163 (377.0 / 251.0) 4089	(7.39, 1.14) (N/A, -0.05, 0.0)	456.0 15.7	0.1018 81.2 86.2	0.1958 [0.1885]	103.8%			
9CI-Pf3ONS	(531.0 / 351.0) 95209 (533.0 / 353.0) 42146	(9.72, 1.50) (N/A, -0.01, 0.0)	302.5 146.5	0.4427 139.8 149.4	0.1637 [0.1867]	87.7%			
11CI-PF3OUDS	(631.0 / 451.0) 64396 (633.0 / 453.0) 25320	(10.00, 1.54) (N/A, -0.01, -0.1)	175.7 6533.6	0.3932 134.4 122.4	0.1680 [0.1886]	89.1%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 892 (241.0 / 117.0) 1985	(4.48, 0.90) (N/A, -0.01, 0.6)	42.8 36.8	2.2239 0.2 127.7	0.2831 [0.4000]	70.8%			IR1,
5:3FTCA	(341.0 / 236.7) 7477 (341.0 / 217.0) 14750	(6.78, 1.10) (N/A, -0.02, 0.7)	123.0 57.5	1.9728 124.9 124.4	0.3362 [0.4000]	84.0%			
7:3FTCA	(441.0 / 317.0) 9303 (441.0 / 337.0) 9096	(8.58, 1.40) (N/A, -0.04, -0.6)	31.4 841.0	0.9777 120.2 113.3	0.3706 [0.4000]	92.7%			
PFEESA	(315.0 / 135.0) 22187 (315.0 / 83.0) 6152	(6.59, 1.07) (N/A, -0.04, -1.0)	258.4 69.7	0.2773 98.1 104.1	0.1978 [0.1785]	110.8%			
PFMPA	(229.0 / 85.0) 4283	(4.18, 0.84) (N/A, -0.03, 0.0)	162.8	N/A 0.0 0.0	0.2159 [0.2000]	108.0%			
PFMBA	(279.0 / 85.0) 13397	(5.37, 1.08) (N/A, -0.03, 0.0)	389.8	N/A 0.0 0.0	0.2069 [0.2000]	103.4%			
NFDHA	(201.0 / 85.0) 557 (295.0 / 201.0) 2635	(6.03, 0.98) (N/A, -0.02, 0.8)	40.1 78.1	4.7312 0.6 69.9	0.1426 [0.2000]	71.3%			IR1,
13C3_PFBA_IIS	(216.0 / 172.0) 66335	(3.68, N/A) (N/A, -0.02, N/A)	587.2	N/A	0.7587 [1.0000]	75.9% {92.4%}			
13C2_PFHxA_IIS	(315.1 / 270.0) 104628	(6.14, N/A) (N/A, -0.03, N/A)	536.2	N/A	0.7952 [1.0000]	79.5% {89.5%}			
13C4_PFOA_IIS	(417.0 / 372.0) 105564	(7.89, N/A) (N/A, -0.04, N/A)	460.3	N/A	0.8434 [1.0000]	84.3% {104.6%}			
13C5_PFNA_IIS	(468.0 / 423.0) 78654	(8.63, N/A) (N/A, -0.02, N/A)	258.6	N/A	0.7880 [1.0000]	78.8% {81.0%}			

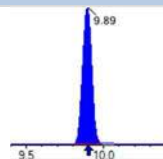
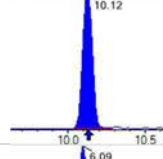
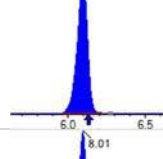
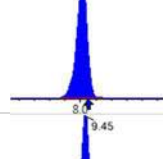
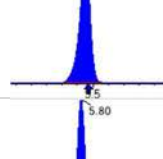
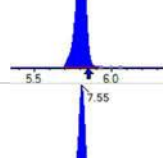
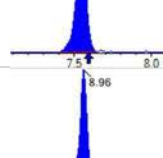
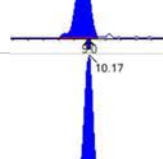
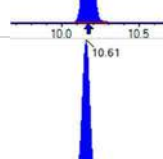
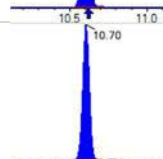



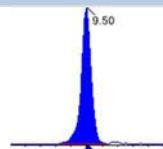
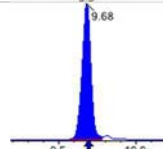
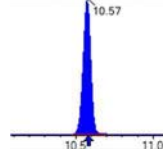
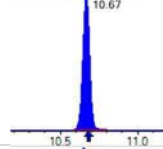
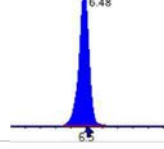
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03903-LCV1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (2)  
 Acquired: 2022/12/20 - 09:52

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	(515.1 / 470.1) 78021	(9.31, N/A) (N/A, -0.01, N/A)	258.6	N/A	0.7524 [ 1.0000 ]	75.2% { 113.9% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 184080	(8.01, N/A) (N/A, -0.04, N/A)	656.7	N/A	0.7781 [ 1.0000 ]	77.8% { 87.2% }			
13C4_PFOS_IIS	(502.8 / 79.9) 137334	(9.45, N/A) (N/A, -0.02, N/A)	273.1	N/A	0.6845 [ 1.0000 ]	68.5% { 86.3% }			
13C4_PFBA_EIS	(217.0 / 172.0) 571163	(3.68, N/A) (N/A, -0.02, N/A)	749.3	N/A	8.3165 [ 8.0000 ]	104.0% { 100.4% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 324700	(4.98, N/A) (N/A, -0.02, N/A)	746.3	N/A	4.2153 [ 4.0000 ]	105.4% { 99.9% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 240766	(6.14, N/A) (N/A, -0.03, N/A)	600.0	N/A	1.9548 [ 2.0000 ]	97.7% { 100.9% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 213739	(7.07, N/A) (N/A, -0.03, N/A)	511.6	N/A	1.9642 [ 2.0000 ]	98.2% { 96.7% }			
13C8_PFOA_EIS	(421.0 / 376.0) 220691	(7.89, N/A) (N/A, -0.04, N/A)	771.0	N/A	1.8920 [ 2.0000 ]	94.6% { 96.1% }			
13C9_PFNA_EIS	(472.0 / 427.0) 81657	(8.63, N/A) (N/A, -0.03, N/A)	245.6	N/A	0.9504 [ 1.0000 ]	95.0% { 99.5% }			
13C6_PFDA_EIS	(519.0 / 474.0) 109083	(9.30, N/A) (N/A, -0.03, N/A)	293.5	N/A	1.0318 [ 1.0000 ]	103.2% { 100.9% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 174437	(9.71, N/A) (N/A, -0.01, N/A)	562.8	N/A	1.1459 [ 1.0000 ]	114.6% { 115.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 168648	(9.89, N/A) (N/A, 0.00, N/A)	549.8	N/A	0.9824 [ 1.0000 ]	98.2% { 92.6% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 106486	(10.12, N/A) (N/A, -0.01, N/A)	263.3	N/A	1.0206 [ 1.0000 ]	102.1% { 94.5% }			
13C3_PFBs_EIS	(302.0 / 80.0) 628812	(6.09, N/A) (N/A, -0.03, N/A)	627.9	N/A	2.0916 [ 2.0000 ]	104.6% { 95.0% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 347889	(8.01, N/A) (N/A, -0.04, N/A)	1025.2	N/A	2.2313 [ 2.0000 ]	111.6% { 101.3% }			
13C8_PFOS_EIS	(507.0 / 80.0) 519785	(9.45, N/A) (N/A, -0.01, N/A)	424.9	N/A	2.3041 [ 2.0000 ]	115.2% { 94.5% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 79089	(5.80, N/A) (N/A, -0.04, N/A)	580.9	N/A	4.6654 [ 4.0000 ]	116.6% { 93.8% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 97941	(7.55, N/A) (N/A, -0.04, N/A)	431.0	N/A	4.5082 [ 4.0000 ]	112.7% { 110.1% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 82421	(8.96, N/A) (N/A, -0.03, N/A)	348.6	N/A	4.2318 [ 4.0000 ]	105.8% { 93.7% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 786574	(10.17, N/A) (N/A, 0.00, N/A)	740.9	N/A	2.3958 [ 2.0000 ]	119.8% { 94.3% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 198605	(10.61, N/A) (N/A, -0.01, N/A)	964.8	N/A	2.4281 [ 2.0000 ]	121.4% { 97.4% }			
D5_NEtFOSA_EIS	(531.1 / 169.0) 165654	(10.70, N/A) (N/A, -0.01, N/A)	859.1	N/A	2.1689 [ 2.0000 ]	108.4% { 89.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 238667	(9.50, N/A) (N/A, -0.01, N/A)	301.9	N/A	4.5100 [ 4.0000 ]	112.8% { 101.3% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 217292	(9.68, N/A) (N/A, -0.01, N/A)	313.6	N/A	4.9406 [ 4.0000 ]	123.5% { 97.1% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 363569	(10.57, N/A) (N/A, -0.01, N/A)	1000.4	N/A	23.1081 [ 20.0000 ]	115.5% { 106.2% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 185281	(10.67, N/A) (N/A, -0.01, N/A)	1528.1	N/A	21.8688 [ 20.0000 ]	109.3% { 93.3% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 647882	(6.48, N/A) (N/A, -0.03, N/A)	765.7	N/A	8.6395 [ 8.0000 ]	108.0% { 99.1% }			

# INITIAL AND CONTINUING CALIBRATION CHECK

## EPA 1633

Laboratory: APPL, LLC  
 Client: AECOM  
 Instrument ID: Saphira  
 Standard ID: 22L0179

Work Order: 22L0083  
 Project: Red Hill AFFF Assessment Sampling  
 Calibration: 2251013  
 Sequence: SB03835

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB03835-CCV1	PFBA	8.00	8.01	100	ng/mL	+/- 30.00%
	PFPEA	4.00	4.05	101	ng/mL	+/- 30.00%
	PFHXA	2.00	1.98	99.0	ng/mL	+/- 30.00%
	PFHPA	2.00	1.96	97.9	ng/mL	+/- 30.00%
	PFOA	2.00	2.02	101	ng/mL	+/- 30.00%
	PFNA	2.00	1.80	89.9	ng/mL	+/- 30.00%
	PFDA	2.00	1.81	90.4	ng/mL	+/- 30.00%
	PFUnA	2.00	2.35	117	ng/mL	+/- 30.00%
	PFDOA	2.00	1.86	93.1	ng/mL	+/- 30.00%
	PFTRDA	2.00	2.11	105	ng/mL	+/- 30.00%
	PFTEDA	2.00	2.08	104	ng/mL	+/- 30.00%
	PFBS	1.77	1.69	95.7	ng/mL	+/- 30.00%
	PFPEs	1.88	1.88	100	ng/mL	+/- 30.00%
	PFHXS	1.83	1.77	97.0	ng/mL	+/- 30.00%
	PFHPS	1.91	1.86	97.4	ng/mL	+/- 30.00%
	PFOS	1.86	1.75	94.3	ng/mL	+/- 30.00%
	PFNS	1.92	2.04	106	ng/mL	+/- 30.00%
	PFDS	1.93	1.80	93.1	ng/mL	+/- 30.00%
	PFDOS	1.94	2.18	112	ng/mL	+/- 30.00%
	4:2FTS	7.50	8.01	107	ng/mL	+/- 30.00%
	6:2FTS	7.60	7.30	96.1	ng/mL	+/- 30.00%
	8:2FTS	7.68	7.36	95.8	ng/mL	+/- 30.00%
	PFOSA	2.00	2.17	109	ng/mL	+/- 30.00%
	NMeFOSA	8.00	8.19	102	ng/mL	+/- 30.00%
	NEtFOSA	8.00	8.27	103	ng/mL	+/- 30.00%
	NMeFOSAA	2.00	2.10	105	ng/mL	+/- 30.00%
	NEtFOSAA	2.00	2.14	107	ng/mL	+/- 30.00%
	NMeFOSE	8.00	7.69	96.1	ng/mL	+/- 30.00%
	NEtFOSE	8.00	8.15	102	ng/mL	+/- 30.00%
	HFPO-DA	4.00	4.01	100	ng/mL	+/- 30.00%

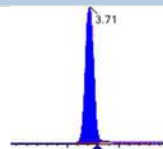
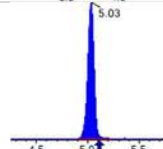
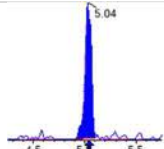
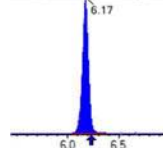
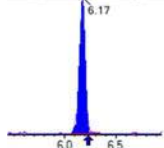
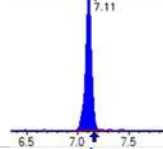
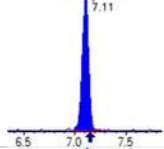
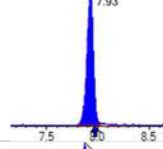
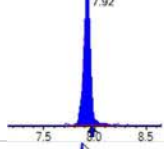
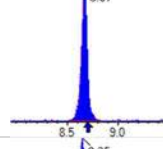
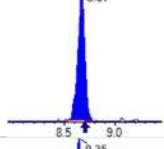
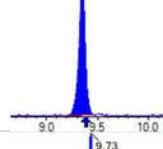
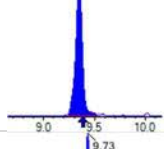
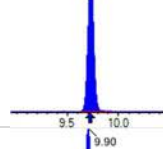
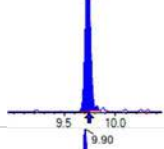
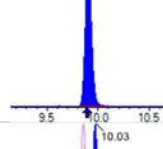
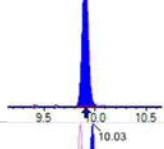
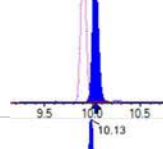
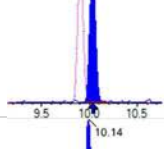
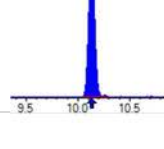
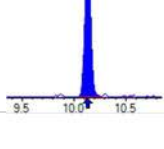
# INITIAL AND CONTINUING CALIBRATION CHECK

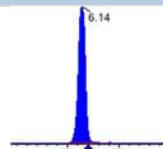
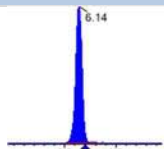
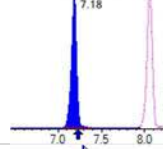
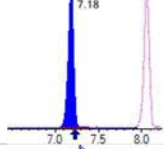
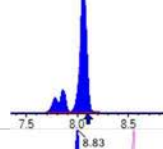
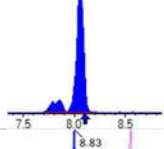
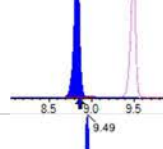
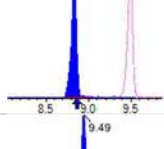
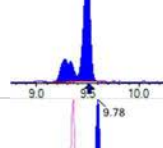
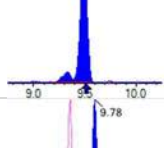
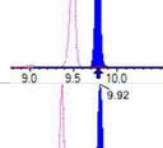
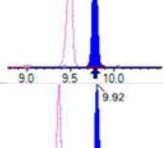
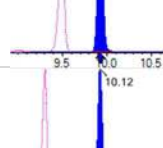
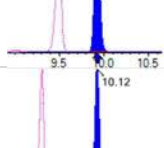
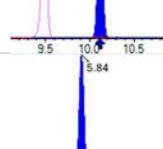
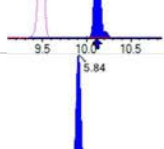
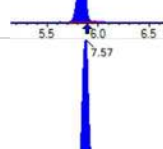
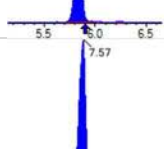
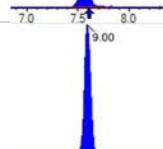
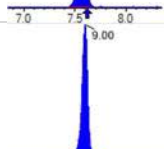

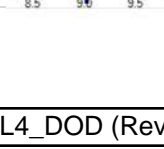
## EPA 1633

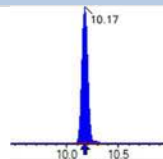
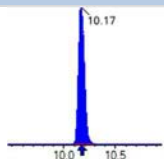
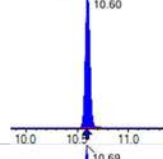
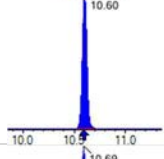
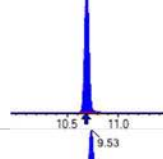
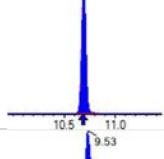
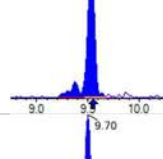
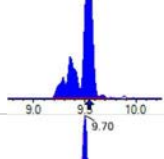
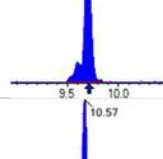
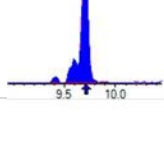
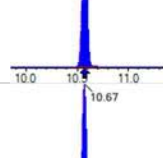
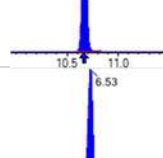
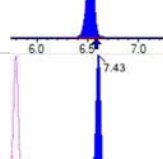
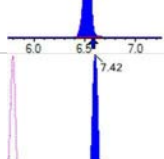
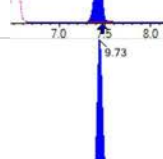
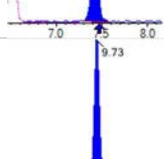
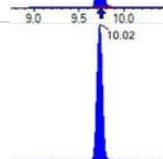
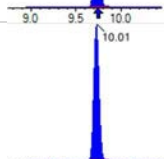

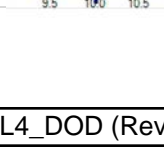
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Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Instrument ID:	Saphira	Calibration:	2251013
Standard ID:	22L0179	Sequence:	SB03835

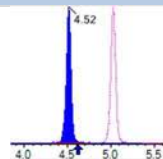
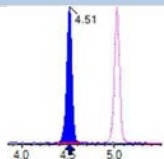
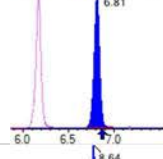
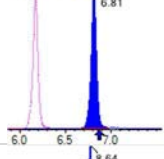
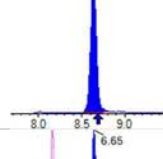
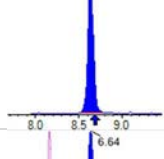
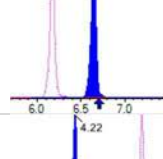
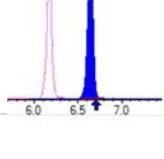
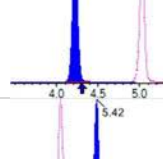
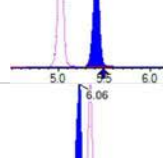
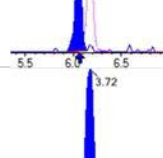
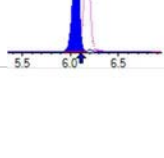
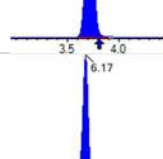
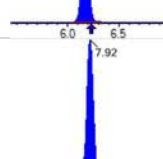
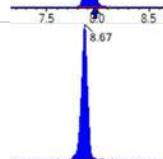

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB03835-CCV1	ADONA	3.78	4.08	108	ng/mL	+/- 30.00%
	PFEESA	3.56	3.78	106	ng/mL	+/- 30.00%
	PFMPA	4.00	3.92	97.9	ng/mL	+/- 30.00%
	PFMBA	4.00	4.24	106	ng/mL	+/- 30.00%
	NFDHA	4.00	3.75	93.8	ng/mL	+/- 30.00%
	9CL-PF3ONS	3.74	3.84	103	ng/mL	+/- 30.00%
	11CL-PF3OUDS	3.78	3.68	97.2	ng/mL	+/- 30.00%
	3:3FTCA	8.00	8.08	101	ng/mL	+/- 30.00%
	5:3FTCA	8.00	8.68	109	ng/mL	+/- 30.00%
	7:3FTCA	8.00	7.69	96.1	ng/mL	+/- 30.00%

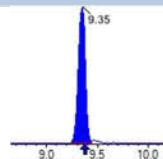
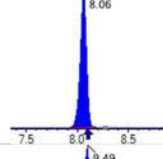
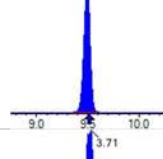
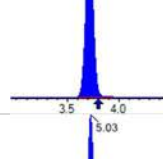
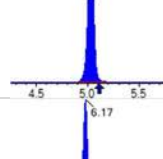
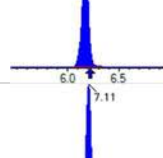
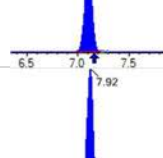
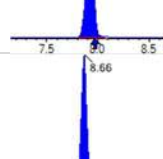
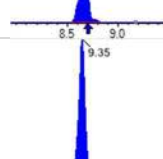
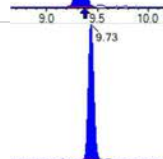



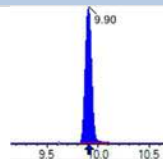
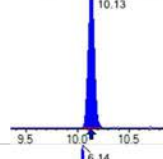
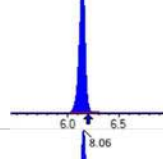
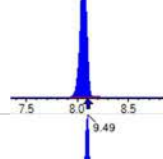
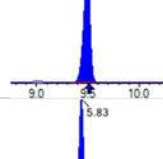
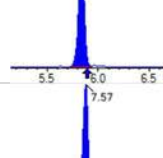
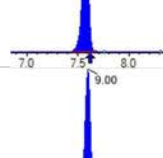
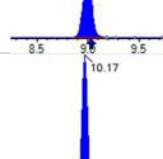
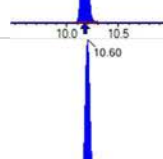
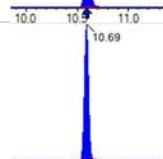

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 450471	(3.71, 1.00) (0.00, N/A, 0.0)	64.9	N/A 0.0 0.0	8.0099 [ 8.0000 ]	100.1%			
PFPeA	(262.9 / 219.0) 293625 (262.9 / 69.0) 3448	(5.03, 1.00) (0.00, N/A, -0.3)	512.9 105.4	0.0117 93.5 100.0	4.0502 [ 4.0000 ]	101.3%			
PFHxA	(313.0 / 269.0) 242765 (313.0 / 119.0) 25858	(6.17, 1.00) (0.00, N/A, 0.1)	495.9 329.3	0.1065 115.0 100.0	1.9792 [ 2.0000 ]	99.0%			
PFHpA	(363.0 / 319.0) 210590 (363.0 / 169.0) 68202	(7.11, 1.00) (0.00, N/A, 0.1)	435.5 349.1	0.3239 104.1 100.0	1.9577 [ 2.0000 ]	97.9%			
PFOA	(413.0 / 369.0) 234122 (413.0 / 169.0) 68205	(7.93, 1.00) (0.00, N/A, 0.1)	487.1 334.8	0.2913 86.8 100.0	2.0215 [ 2.0000 ]	101.1%			
PFNA	(463.0 / 419.0) 168572 (463.0 / 169.0) 34379	(8.67, 1.00) (0.01, N/A, 0.0)	378.9 70.9	0.2039 116.2 100.0	1.7971 [ 2.0000 ]	89.9%			
PFDA	(513.0 / 469.0) 223105 (513.0 / 169.0) 29228	(9.35, 1.00) (0.00, N/A, 0.1)	271.6 163.0	0.1310 130.1 100.0	1.8074 [ 2.0000 ]	90.4%			
PFUnA	(563.0 / 519.0) 356024 (563.0 / 169.0) 30906	(9.73, 1.00) (0.00, N/A, 0.0)	565.9 201.3	0.0868 94.8 100.0	2.3492 [ 2.0000 ]	117.5%			
PFDoA	(613.0 / 569.0) 337301 (613.0 / 169.0) 48022	(9.90, 1.00) (0.00, N/A, 0.1)	747.2 470.9	0.1424 111.1 100.0	1.8624 [ 2.0000 ]	93.1%			
PFTrDA	(663.0 / 619.0) 314485 (663.0 / 169.0) 72464	(10.03, 1.01) (N/A, 0.00, -0.2)	551.1 251.7	0.2304 104.9 100.0	2.1062 [ 2.0000 ]	105.3%			
PFTeDA	(713.0 / 669.0) 256722 (713.0 / 169.0) 45054	(10.13, 1.00) (0.00, N/A, -0.1)	591.5 199.2	0.1755 94.3 100.0	2.0827 [ 2.0000 ]	104.1%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	( 298.9 / 80.0 ) 325536 ( 298.9 / 99.0 ) 216392	( 6.14 , 1.00 ) ( 0.00 , N/A , 0.1 )	599.5 522.1	0.6647 92.3 100.0	1.6941 [ 1.7695 ]	95.7%			
PFPeS	( 349.0 / 80.0 ) 625468 ( 349.0 / 99.0 ) 234207	( 7.18 , 0.89 ) ( N/A , 0.00 , 0.0 )	636.9 490.1	0.3745 100.0 100.0	1.8837 [ 1.8768 ]	100.4%			
PFHxS	( 399.0 / 80.0 ) 537843 ( 399.0 / 99.0 ) 186027	( 8.06 , 1.00 ) ( 0.00 , N/A , 0.1 )	74821.6 43764.4	0.3459 107.2 100.0	1.7745 [ 1.8220 ]	97.4%			
PFHpS	( 449.0 / 80.0 ) 501200 ( 449.0 / 99.0 ) 149845	( 8.83 , 0.93 ) ( N/A , 0.00 , -0.1 )	567.6 503.0	0.2990 97.4 100.0	1.8610 [ 1.9028 ]	97.8%			
PFOS	( 499.0 / 80.0 ) 574108 ( 499.0 / 99.0 ) 146421	( 9.49 , 1.00 ) ( 0.00 , N/A , 0.2 )	112.7 184.9	0.2550 111.1 100.0	1.7541 [ 1.8550 ]	94.6%			
PFNS	( 549.0 / 80.0 ) 822505 ( 549.0 / 99.0 ) 194735	( 9.78 , 1.03 ) ( N/A , 0.00 , 0.0 )	659.8 479.0	0.2368 91.3 100.0	2.0396 [ 1.9198 ]	106.2%			
PFDS	( 599.0 / 80.0 ) 952563 ( 599.0 / 99.0 ) 234987	( 9.92 , 1.05 ) ( N/A , 0.00 , 0.1 )	796.5 585.6	0.2467 109.6 100.0	1.7968 [ 1.9262 ]	93.3%			
PFDoS	( 698.9 / 80.0 ) 583949 ( 698.9 / 99.0 ) 117794	( 10.12 , 1.07 ) ( N/A , 0.00 , -0.1 )	834.1 8925.4	0.2017 99.6 100.0	2.1774 [ 1.9391 ]	112.3%			
4:2FTS	( 327.0 / 307.0 ) 488607 ( 327.0 / 81.0 ) 279054	( 5.84 , 1.00 ) ( 0.00 , N/A , 0.1 )	932.3 503.7	0.5711 94.1 100.0	8.0096 [ 7.4762 ]	107.1%			
6:2FTS	( 427.0 / 407.0 ) 300268 ( 427.0 / 81.0 ) 222810	( 7.57 , 1.00 ) ( 0.00 , N/A , -0.1 )	696.0 730.2	0.7420 114.2 100.0	7.3010 [ 7.5923 ]	96.2%			
8:2FTS	( 527.0 / 507.0 ) 254061 ( 527.0 / 81.0 ) 174796	( 9.00 , 1.00 ) ( 0.00 , N/A , -0.3 )	291.9 555.0	0.6880 109.7 100.0	7.3567 [ 7.6663 ]	96.0%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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) 939862 (498.0 / 478.0) 25975	(10.17, 1.00) (0.00, N/A, 0.3)	1112.0 206.3	0.0276 121.4 100.0	2.1700 [2.0000]	108.5%			
NMeFOFA	(511.9 / 219.0) 796904 (511.9 / 169.0) 508514	(10.60, 1.00) (0.00, N/A, 0.0)	1518.1 1320.6	0.6381 100.0 100.0	8.1911 [8.0000]	102.4%			
NEIFOSA	(526.0 / 219.0) 723422 (526.0 / 169.0) 785696	(10.69, 1.00) (0.00, N/A, 0.0)	1201.5 1623.2	1.0861 101.7 100.0	8.2657 [8.0000]	103.3%			
NMeFOSAA	(570.0 / 419.0) 102968 (570.0 / 483.0) 53818	(9.53, 1.00) (0.00, N/A, 0.0)	222.2 1164.0	0.5227 91.1 100.0	2.0992 [2.0000]	105.0%			
NEIFOSAA	(584.0 / 419.0) 114270 (584.0 / 526.0) 67347	(9.70, 1.00) (0.00, N/A, -0.1)	3999.5 65064.7	0.5894 104.0 100.0	2.1374 [2.0000]	106.9%			
NMeFOSE	(616.1 / 59.0) 210678	(10.57, 1.00) (0.01, N/A, 0.0)	832.2	N/A 0.0 0.0	7.6915 [8.0000]	96.1%			
NEtFOSE	(630.0 / 59.0) 60175	(10.67, 1.00) (0.01, N/A, 0.0)	752.4	N/A 0.0 0.0	8.1514 [8.0000]	101.9%			
HFPO-DA	(285.0 / 169.0) 205773 (285.0 / 185.0) 603252	(6.53, 1.00) (0.00, N/A, 0.3)	1006.4 818.6	2.9316 111.5 100.0	4.0060 [4.0000]	100.1%			
ADONA	(377.0 / 85.0) 893364 (377.0 / 251.0) 95940	(7.43, 1.14) (N/A, 0.00, 0.1)	879.8 268.8	0.1074 91.1 100.0	4.0783 [3.7708]	108.2%			
9CI-Pf3ONS	(531.0 / 351.0) 2385164 (533.0 / 353.0) 743441	(9.73, 1.49) (N/A, 0.00, -0.1)	880.6 832.3	0.3117 107.5 100.0	3.8402 [3.7330]	102.9%			
11CI-PF3OUDS	(631.0 / 451.0) 1463195 (633.0 / 453.0) 506956	(10.02, 1.54) (N/A, 0.00, 0.2)	999.4 959.9	0.3465 109.8 100.0	3.6760 [3.7728]	97.4%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 24608 (241.0 / 117.0) 45154	(4.52, 0.90) (N/A, 0.00, 0.2)	486.8 494.6	1.8350 111.9 100.0	8.0766 [ 8.0000 ]	101.0%			
5:3FTCA	(341.0 / 236.7) 213083 (341.0 / 217.0) 329647	(6.81, 1.10) (N/A, 0.00, 0.0)	602.6 476.3	1.5470 98.2 100.0	8.6819 [ 8.0000 ]	108.5%			
7:3FTCA	(441.0 / 317.0) 236191 (441.0 / 337.0) 191550	(8.64, 1.40) (N/A, 0.00, 0.0)	292.1 350.1	0.8110 96.8 100.0	7.6914 [ 8.0000 ]	96.1%			
PFEESA	(315.0 / 135.0) 505496 (315.0 / 83.0) 155018	(6.65, 1.08) (N/A, 0.00, 0.2)	745.0 541.7	0.3067 100.0 100.0	3.7844 [ 3.5698 ]	106.0%			
PFMPA	(229.0 / 85.0) 77098	(4.22, 0.84) (N/A, 0.00, 0.0)	791.9	N/A 0.0 0.0	3.9177 [ 4.0000 ]	97.9%			
PFMBA	(279.0 / 85.0) 279537	(5.42, 1.08) (N/A, 0.00, 0.0)	776.8	N/A 0.0 0.0	4.2444 [ 4.0000 ]	106.1%			
NFDHA	(201.0 / 85.0) 9638 (295.0 / 201.0) 69852	(6.06, 0.98) (N/A, 0.00, -0.1)	111.5 474.2	7.2472 110.0 100.0	3.7514 [ 4.0000 ]	93.8%			
13C3_PFBA_IIS	(216.0 / 172.0) 96278	(3.72, N/A) (N/A, 0.00, N/A)	669.8	N/A	0.7935 [ 1.0000 ]	79.4% { 100.0% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 175192	(6.17, N/A) (N/A, 0.00, N/A)	554.8	N/A	0.9600 [ 1.0000 ]	96.0% { 100.0% }			
13C4_PFOA_IIS	(417.0 / 372.0) 144958	(7.92, N/A) (N/A, 0.00, N/A)	536.4	N/A	0.8304 [ 1.0000 ]	83.0% { 100.0% }			
13C5_PFNA_IIS	(468.0 / 423.0) 117192	(8.67, N/A) (N/A, 0.00, N/A)	305.4	N/A	0.8624 [ 1.0000 ]	86.2% { 100.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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	(515.1 / 470.1) 130981	(9.35, N/A) (N/A, 0.00, N/A)	333.9	N/A	0.9440 [ 1.0000 ]	94.4% { 100.0% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 283288	(8.06, N/A) (N/A, 0.00, N/A)	698.2	N/A	0.8778 [ 1.0000 ]	87.8% { 100.0% }			
13C4_PFOS_IIS	(502.8 / 79.9) 254551	(9.49, N/A) (N/A, 0.00, N/A)	787.1	N/A	1.0108 [ 1.0000 ]	101.1% { 100.0% }			
13C4_PFBA_EIS	(217.0 / 172.0) 640490	(3.71, N/A) (N/A, 0.00, N/A)	787.7	N/A	8.7273 [ 8.0000 ]	109.1% { 100.0% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 326693	(5.03, N/A) (N/A, 0.00, N/A)	813.6	N/A	3.3673 [ 4.0000 ]	84.2% { 100.0% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 276821	(6.17, N/A) (N/A, 0.00, N/A)	775.5	N/A	1.8749 [ 2.0000 ]	93.7% { 100.0% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 232466	(7.11, N/A) (N/A, 0.00, N/A)	474.0	N/A	1.8138 [ 2.0000 ]	90.7% { 100.0% }			
13C8_PFOA_EIS	(421.0 / 376.0) 231791	(7.92, N/A) (N/A, 0.00, N/A)	530.1	N/A	2.0853 [ 2.0000 ]	104.3% { 100.0% }			
13C9_PFNA_EIS	(472.0 / 427.0) 102893	(8.66, N/A) (N/A, 0.00, N/A)	391.8	N/A	1.1396 [ 1.0000 ]	114.0% { 100.0% }			
13C6_PFDA_EIS	(519.0 / 474.0) 122079	(9.35, N/A) (N/A, 0.00, N/A)	245.8	N/A	0.9718 [ 1.0000 ]	97.2% { 100.0% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 174704	(9.73, N/A) (N/A, 0.00, N/A)	318.1	N/A	1.0126 [ 1.0000 ]	101.3% { 100.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[min], $\Delta$ RT- CV[min], $\Delta$ 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) 209133	(9.90, N/A) (N/A, 0.00, N/A)	434.4	N/A	0.9857 [ 1.0000 ]	98.6% { 100.0% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 134878	(10.13, N/A) (N/A, 0.00, N/A)	391.8	N/A	1.0125 [ 1.0000 ]	101.2% { 100.0% }			
13C3_PFBs_EIS	(302.0 / 80.0) 680162	(6.14, N/A) (N/A, 0.00, N/A)	678.7	N/A	2.0867 [ 2.0000 ]	104.3% { 100.0% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 377433	(8.06, N/A) (N/A, 0.00, N/A)	590.9	N/A	2.0575 [ 2.0000 ]	102.9% { 100.0% }			
13C8_PFOS_EIS	(507.0 / 80.0) 595289	(9.49, N/A) (N/A, 0.00, N/A)	425.5	N/A	1.8783 [ 2.0000 ]	93.9% { 100.0% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 74834	(5.83, N/A) (N/A, 0.00, N/A)	422.2	N/A	3.9281 [ 4.0000 ]	98.2% { 100.0% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 100928	(7.57, N/A) (N/A, 0.00, N/A)	618.1	N/A	4.3329 [ 4.0000 ]	108.3% { 100.0% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 96996	(9.00, N/A) (N/A, 0.00, N/A)	323.4	N/A	4.1738 [ 4.0000 ]	104.3% { 100.0% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 883079	(10.17, N/A) (N/A, 0.00, N/A)	749.0	N/A	1.8421 [ 2.0000 ]	92.1% { 100.0% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 233883	(10.60, N/A) (N/A, 0.00, N/A)	992.9	N/A	1.9007 [ 2.0000 ]	95.0% { 100.0% }			
D5_NeIFOSA_EIS	(531.1 / 169.0) 189363	(10.69, N/A) (N/A, 0.00, N/A)	1059.7	N/A	1.7737 [ 2.0000 ]	88.7% { 100.0% }			



Chemist: DAG  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03835-CCV1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - 2022-12-13  
 Path: S2022-12-14AS2022-12-14A04.wiff-  
 n  
 Acquired: 2022/12/14 - 11:21

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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 ) 253816	( 9.53, N/A ) ( N/A, 0.00, N/A )	435.6	N/A	3.3836 [ 4.0000 ]	84.6% { 100.0% }			
D5_EtFOSAA_EIS	( 589.0 / 419.0 ) 245660	( 9.70, N/A ) ( N/A, 0.00, N/A )	434.7	N/A	3.6192 [ 4.0000 ]	90.5% { 100.0% }			
D7_NMeFOSE_EIS	( 623.2 / 58.9 ) 406049	( 10.57, N/A ) ( N/A, 0.00, N/A )	987.6	N/A	17.2121 [ 20.0000 ]	86.1% { 100.0% }			
D9_NEtFOSE_EIS	( 639.2 / 58.9 ) 218227	( 10.66, N/A ) ( N/A, 0.00, N/A )	1262.1	N/A	18.4612 [ 20.0000 ]	92.3% { 100.0% }			
13C3_HFPODA_EIS	( 287.0 / 169.0 ) 664499	( 6.52, N/A ) ( N/A, 0.00, N/A )	650.9	N/A	7.3476 [ 8.0000 ]	91.8% { 100.0% }			

# INITIAL AND CONTINUING CALIBRATION CHECK

## EPA 1633

Laboratory: APPL, LLC  
 Client: AECOM  
 Instrument ID: Saphira  
 Standard ID: 22L0179

Work Order: 22L0083  
 Project: Red Hill AFFF Assessment Sampling  
 Calibration: 2251013  
 Sequence: SB03835

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB03835-CCV2	PFBA	8.00	8.08	101	ng/mL	+/- 30.00%
	PFPEA	4.00	4.01	100	ng/mL	+/- 30.00%
	PFHXA	2.00	2.19	109	ng/mL	+/- 30.00%
	PFHPA	2.00	2.21	110	ng/mL	+/- 30.00%
	PFOA	2.00	1.76	88.2	ng/mL	+/- 30.00%
	PFNA	2.00	2.11	105	ng/mL	+/- 30.00%
	PFDA	2.00	2.02	101	ng/mL	+/- 30.00%
	PFUnA	2.00	1.86	92.8	ng/mL	+/- 30.00%
	PFDOA	2.00	1.82	91.2	ng/mL	+/- 30.00%
	PFTRDA	2.00	1.92	96.0	ng/mL	+/- 30.00%
	PFTEDA	2.00	1.90	95.0	ng/mL	+/- 30.00%
	PFBS	1.77	1.87	106	ng/mL	+/- 30.00%
	PFPEs	1.88	1.84	98.0	ng/mL	+/- 30.00%
	PFHXS	1.83	1.64	89.4	ng/mL	+/- 30.00%
	PFHPS	1.91	1.70	89.2	ng/mL	+/- 30.00%
	PFOS	1.86	1.86	100	ng/mL	+/- 30.00%
	PFNS	1.92	1.74	90.8	ng/mL	+/- 30.00%
	PFDS	1.93	1.71	88.8	ng/mL	+/- 30.00%
	PFDOS	1.94	1.97	102	ng/mL	+/- 30.00%
	4:2FTS	7.50	7.75	103	ng/mL	+/- 30.00%
	6:2FTS	7.60	7.17	94.3	ng/mL	+/- 30.00%
	8:2FTS	7.68	8.93	116	ng/mL	+/- 30.00%
	PFOSA	2.00	2.01	101	ng/mL	+/- 30.00%
	NMeFOSA	8.00	8.72	109	ng/mL	+/- 30.00%
	NEtFOSA	8.00	7.79	97.4	ng/mL	+/- 30.00%
	NMeFOSAA	2.00	2.37	118	ng/mL	+/- 30.00%
	NEtFOSAA	2.00	1.80	90.2	ng/mL	+/- 30.00%
	NMeFOSE	8.00	7.55	94.4	ng/mL	+/- 30.00%
	NEtFOSE	8.00	8.02	100	ng/mL	+/- 30.00%
	HFPO-DA	4.00	3.93	98.3	ng/mL	+/- 30.00%

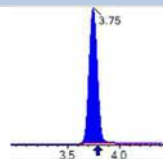
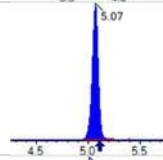
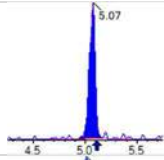
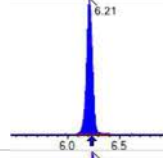
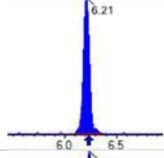
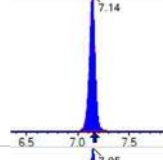
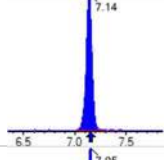
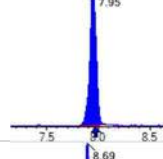
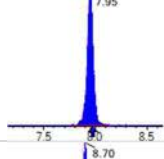
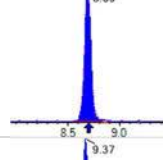
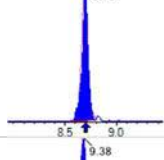
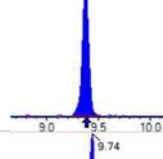
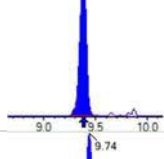
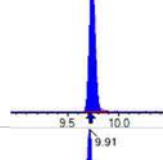
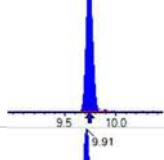
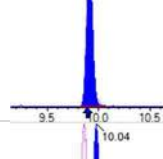
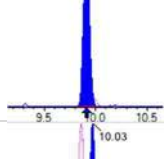
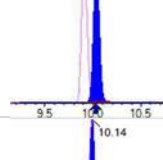
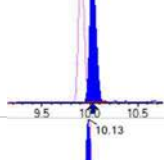
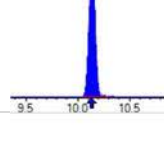
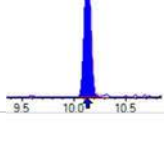


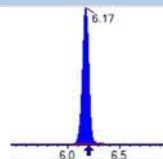
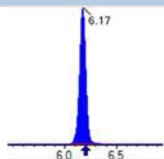
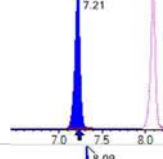
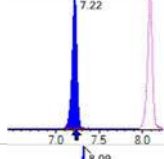
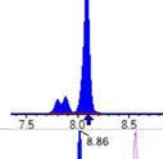
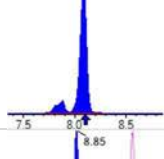
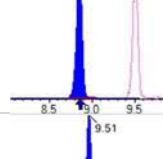
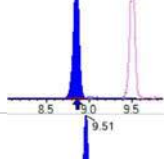
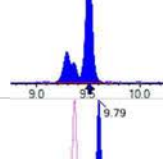
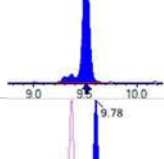
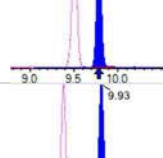
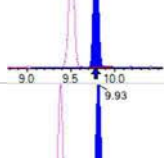
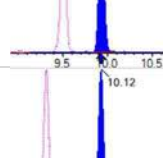
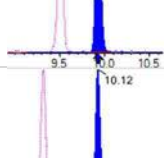
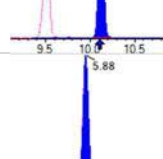
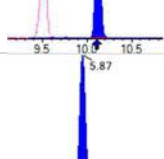
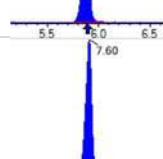
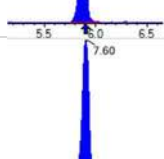
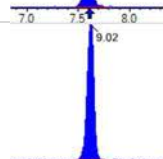
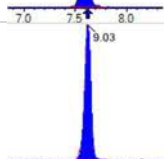
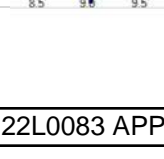
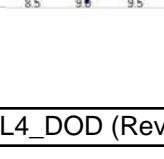
# INITIAL AND CONTINUING CALIBRATION CHECK

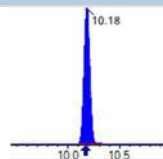
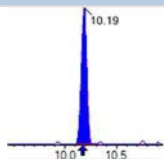
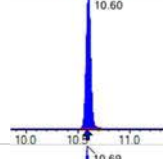
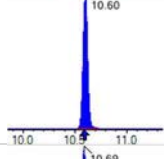
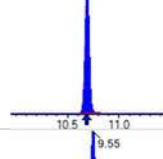
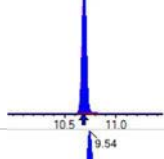
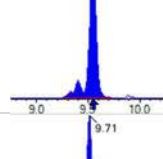
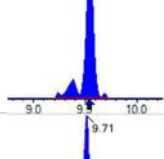
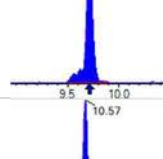
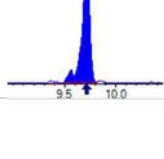
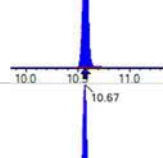
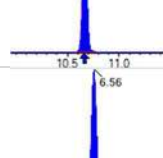
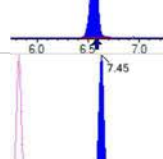
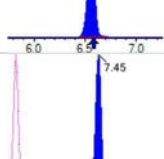
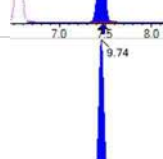
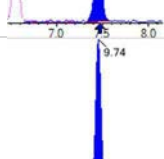
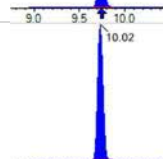
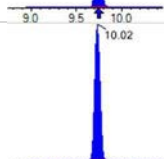
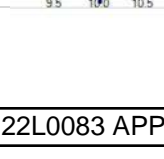
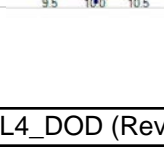
## EPA 1633

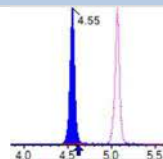
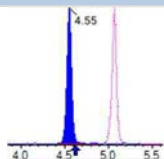
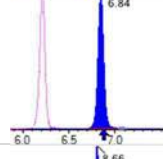
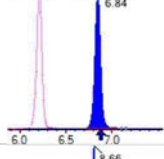
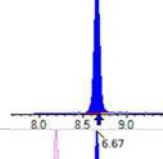
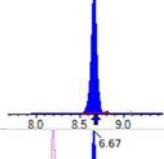
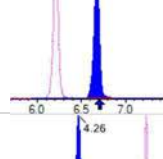
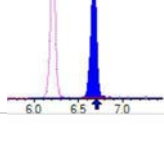
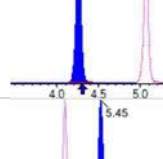
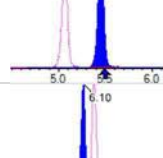
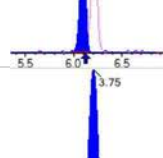
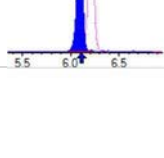
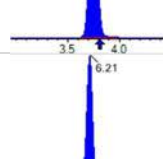
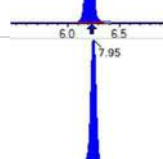
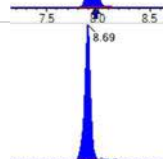

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Instrument ID:	Saphira	Calibration:	2251013
Standard ID:	22L0179	Sequence:	SB03835

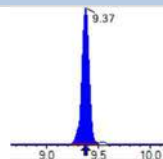
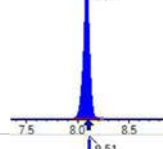
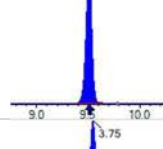
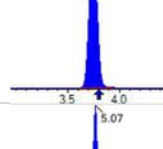
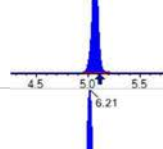
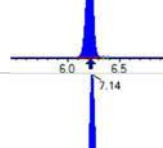
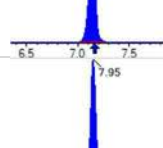
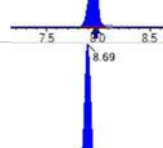
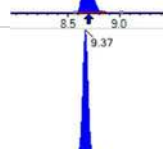
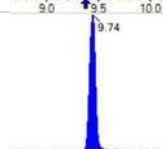
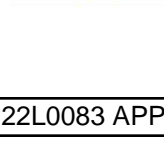
Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB03835-CCV2	ADONA	3.78	3.24	85.6	ng/mL	+/- 30.00%
	PFEESA	3.56	3.46	97.1	ng/mL	+/- 30.00%
	PFMPA	4.00	3.85	96.3	ng/mL	+/- 30.00%
	PFMBA	4.00	4.09	102	ng/mL	+/- 30.00%
	NFDHA	4.00	4.73	118	ng/mL	+/- 30.00%
	9CL-PF3ONS	3.74	3.57	95.5	ng/mL	+/- 30.00%
	11CL-PF3OUDS	3.78	3.95	104	ng/mL	+/- 30.00%
	3:3FTCA	8.00	7.97	99.6	ng/mL	+/- 30.00%
	5:3FTCA	8.00	8.42	105	ng/mL	+/- 30.00%
	7:3FTCA	8.00	9.19	115	ng/mL	+/- 30.00%

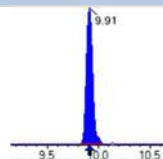
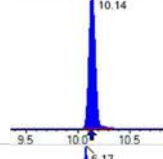
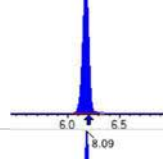
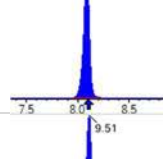
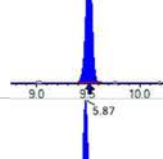
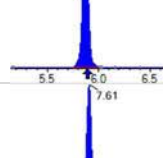
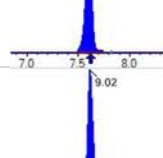
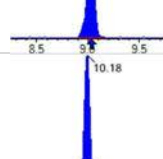
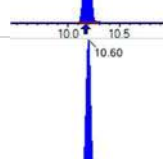
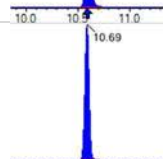
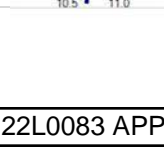
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 471556	(3.75, 1.00) (0.00, N/A, 0.0)	71.5	N/A 0.0 0.0	8.0758 [ 8.0000 ]	100.9%			
PFPeA	(262.9 / 219.0) 336896 (262.9 / 69.0) 3845	(5.07, 1.00) (0.00, N/A, -0.1)	712.8 125.6	0.0114 90.9 97.2	4.0090 [ 4.0000 ]	100.2%			
PFHxA	(313.0 / 269.0) 283965 (313.0 / 119.0) 28306	(6.21, 1.00) (0.00, N/A, 0.0)	644.5 340.2	0.0997 107.7 93.6	2.1859 [ 2.0000 ]	109.3%			
PFHpA	(363.0 / 319.0) 301327 (363.0 / 169.0) 82007	(7.14, 1.00) (0.00, N/A, 0.2)	647.7 410.5	0.2722 87.5 84.0	2.2057 [ 2.0000 ]	110.3%			
PFOA	(413.0 / 369.0) 264074 (413.0 / 169.0) 87846	(7.95, 1.00) (0.00, N/A, -0.1)	530.7 445.4	0.3327 99.1 114.2	1.7644 [ 2.0000 ]	88.2%			
PFNA	(463.0 / 419.0) 220521 (463.0 / 169.0) 47294	(8.69, 1.00) (0.00, N/A, -0.3)	405.4 58.0	0.2145 122.2 105.2	2.1088 [ 2.0000 ]	105.4%			
PFDA	(513.0 / 469.0) 295507 (513.0 / 169.0) 23823	(9.37, 1.00) (0.00, N/A, -0.4)	424.3 206.7	0.0806 80.1 61.5	2.0167 [ 2.0000 ]	100.8%			
PFUnA	(563.0 / 519.0) 351345 (563.0 / 169.0) 36865	(9.74, 1.00) (0.00, N/A, -0.1)	516.5 1059.5	0.1049 114.6 120.9	1.8564 [ 2.0000 ]	92.8%			
PFDoA	(613.0 / 569.0) 413746 (613.0 / 169.0) 55063	(9.91, 1.00) (0.00, N/A, 0.2)	527.8 584.2	0.1331 103.8 93.5	1.8239 [ 2.0000 ]	91.2%			
PFTrDA	(663.0 / 619.0) 358968 (663.0 / 169.0) 69243	(10.04, 1.01) (N/A, 0.01, 0.5)	641.3 259.6	0.1929 87.8 83.7	1.9194 [ 2.0000 ]	96.0%			
PFTeDA	(713.0 / 669.0) 306380 (713.0 / 169.0) 60635	(10.14, 1.00) (0.00, N/A, 0.5)	636.2 232.1	0.1979 106.4 112.8	1.9000 [ 2.0000 ]	95.0%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(298.9 / 80.0) 398416 (298.9 / 99.0) 250128	(6.17, 1.00) (0.00, N/A, 0.0)	737.7 737.1	0.6278 87.1 94.4	1.8733 [ 1.7695 ]	105.9%			
PFPeS	(349.0 / 80.0) 725535 (349.0 / 99.0) 284827	(7.21, 0.89) (N/A, 0.03, 0.0)	624.9 752.4	0.3926 104.8 104.8	1.8419 [ 1.8768 ]	98.1%			
PFHxS	(399.0 / 80.0) 588342 (399.0 / 99.0) 228829	(8.09, 1.00) (0.00, N/A, 0.1)	10855.0 57546.4	0.3889 120.6 112.5	1.6363 [ 1.8220 ]	89.8%			
PFHpS	(449.0 / 80.0) 532244 (449.0 / 99.0) 147433	(8.86, 0.93) (N/A, 0.03, 0.0)	652.8 280.4	0.2770 90.2 92.7	1.7042 [ 1.9028 ]	89.6%			
PFOS	(499.0 / 80.0) 706286 (499.0 / 99.0) 161086	(9.51, 1.00) (0.00, N/A, 0.0)	104.2 144.3	0.2281 99.4 89.4	1.8609 [ 1.8550 ]	100.3%			
PFNS	(549.0 / 80.0) 815284 (549.0 / 99.0) 201460	(9.79, 1.03) (N/A, 0.01, 0.0)	790.1 551.5	0.2471 95.3 104.4	1.7434 [ 1.9198 ]	90.8%			
PFDS	(599.0 / 80.0) 1053059 (599.0 / 99.0) 232905	(9.93, 1.04) (N/A, 0.01, 0.0)	951.7 596.9	0.2212 98.3 89.7	1.7129 [ 1.9262 ]	88.9%			
PFDoS	(698.9 / 80.0) 613112 (698.9 / 99.0) 139888	(10.12, 1.06) (N/A, 0.01, 0.1)	976.7 426.9	0.2282 112.7 113.1	1.9714 [ 1.9391 ]	101.7%			
4:2FTS	(327.0 / 307.0) 495827 (327.0 / 81.0) 297935	(5.88, 1.00) (0.00, N/A, 0.1)	711.5 598.9	0.6009 99.0 105.2	7.7500 [ 7.4762 ]	103.7%			
6:2FTS	(427.0 / 407.0) 345720 (427.0 / 81.0) 245779	(7.60, 1.00) (0.00, N/A, 0.1)	705.5 705.6	0.7109 109.4 95.8	7.1684 [ 7.5923 ]	94.4%			
8:2FTS	(527.0 / 507.0) 309475 (527.0 / 81.0) 217822	(9.02, 1.00) (0.00, N/A, -0.1)	523.6 359.9	0.7038 112.3 102.3	8.9331 [ 7.6663 ]	116.5%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 1063672 (498.0 / 478.0) 26692	(10.18, 1.00) (0.00, N/A, -0.2)	986.5 361.6	0.0251 110.2 90.8	2.0143 [2.0000]	100.7%			
NMeFOSA	(511.9 / 219.0) 904078 (511.9 / 169.0) 631018	(10.60, 1.00) (0.00, N/A, 0.0)	1232.8 1092.4	0.6980 109.4 109.4	8.7198 [8.0000]	109.0%			
NEIFOSA	(526.0 / 219.0) 839032 (526.0 / 169.0) 927494	(10.69, 1.00) (0.00, N/A, 0.0)	1966.9 1613.7	1.1054 103.5 101.8	7.7934 [8.0000]	97.4%			
NMeFOSAA	(570.0 / 419.0) 139044 (570.0 / 483.0) 69640	(9.55, 1.00) (0.00, N/A, 0.2)	2749.5 15093763.7	0.5008 87.3 95.8	2.3688 [2.0000]	118.4%			
NEIFOSAA	(584.0 / 419.0) 127378 (584.0 / 526.0) 77123	(9.71, 1.00) (0.00, N/A, -0.1)	2799.6 269.6	0.6055 106.8 102.7	1.8040 [2.0000]	90.2%			
NMeFOSE	(616.1 / 59.0) 290519	(10.57, 1.00) (0.01, N/A, 0.0)	865.4	N/A 0.0 0.0	7.5504 [8.0000]	94.4%			
NEtFOSE	(630.0 / 59.0) 78277	(10.67, 1.00) (0.01, N/A, 0.0)	842.8	N/A 0.0 0.0	8.0203 [8.0000]	100.3%			
HFPO-DA	(285.0 / 169.0) 257334 (285.0 / 185.0) 658359	(6.56, 1.00) (0.00, N/A, -0.1)	698.4 924.8	2.5584 97.3 87.3	3.9302 [4.0000]	98.3%			
ADONA	(377.0 / 85.0) 903919 (377.0 / 251.0) 111391	(7.45, 1.14) (N/A, 0.03, 0.0)	930.2 296.1	0.1232 104.5 114.7	3.2373 [3.7708]	85.9%			
9CI-Pf3ONS	(531.0 / 351.0) 2826806 (533.0 / 353.0) 919916	(9.74, 1.49) (N/A, 0.01, 0.0)	1233.3 915.9	0.3254 112.2 104.4	3.5705 [3.7330]	95.6%			
11CI-PF3OUDS	(631.0 / 451.0) 2002304 (633.0 / 453.0) 620059	(10.02, 1.53) (N/A, 0.00, -0.1)	846.3 919.9	0.3097 98.2 89.4	3.9465 [3.7728]	104.6%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 28153 (241.0 / 117.0) 49245	(4.55, 0.90) (N/A, 0.04, 0.1)	487.0 411.3	1.7492 106.7 95.3	7.9714 [ 8.0000 ]	99.6%			
5:3FTCA	(341.0 / 236.7) 218764 (341.0 / 217.0) 359642	(6.84, 1.10) (N/A, 0.03, 0.0)	450.5 448.7	1.6440 104.3 106.3	8.4160 [ 8.0000 ]	105.2%			
7:3FTCA	(441.0 / 317.0) 298841 (441.0 / 337.0) 250362	(8.66, 1.39) (N/A, 0.03, -0.1)	421.0 461.5	0.8378 100.0 103.3	9.1885 [ 8.0000 ]	114.9%			
PFEESA	(315.0 / 135.0) 488799 (315.0 / 83.0) 139530	(6.67, 1.07) (N/A, 0.03, 0.0)	1133.8 569.8	0.2855 93.1 93.1	3.4552 [ 3.5698 ]	96.8%			
PFMPA	(229.0 / 85.0) 87869	(4.26, 0.84) (N/A, 0.04, 0.0)	933.7	N/A 0.0 0.0	3.8520 [ 4.0000 ]	96.3%			
PFMBA	(279.0 / 85.0) 312163	(5.45, 1.08) (N/A, 0.03, 0.0)	770.0	N/A 0.0 0.0	4.0889 [ 4.0000 ]	102.2%			
NFDHA	(201.0 / 85.0) 12773 (295.0 / 201.0) 78920	(6.10, 0.98) (N/A, 0.04, 0.3)	248.4 463.7	6.1786 93.8 85.3	4.7251 [ 4.0000 ]	118.1%			
13C3_PFBA_IIS	(216.0 / 172.0) 99013	(3.75, N/A) (N/A, 0.03, N/A)	821.9	N/A	0.8160 [ 1.0000 ]	81.6% { 102.8% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 163411	(6.21, N/A) (N/A, 0.04, N/A)	581.3	N/A	0.8955 [ 1.0000 ]	89.5% { 93.3% }			
13C4_PFOA_IIS	(417.0 / 372.0) 182662	(7.95, N/A) (N/A, 0.03, N/A)	562.5	N/A	1.0464 [ 1.0000 ]	104.6% { 126.0% }			
13C5_PFNA_IIS	(468.0 / 423.0) 153306	(8.69, N/A) (N/A, 0.02, N/A)	274.9	N/A	1.1282 [ 1.0000 ]	112.8% { 130.8% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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	(515.1 / 470.1) 142463	(9.37, N/A) (N/A, 0.03, N/A)	278.6	N/A	1.0267 [ 1.0000 ]	102.7% { 108.8% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 312677	(8.09, N/A) (N/A, 0.03, N/A)	758.9	N/A	0.9688 [ 1.0000 ]	96.9% { 110.4% }			
13C4_PFOS_IIS	(502.8 / 79.9) 255624	(9.51, N/A) (N/A, 0.02, N/A)	590.4	N/A	1.0151 [ 1.0000 ]	101.5% { 100.4% }			
13C4_PFBA_EIS	(217.0 / 172.0) 664995	(3.75, N/A) (N/A, 0.03, N/A)	885.5	N/A	8.8109 [ 8.0000 ]	110.1% { 103.8% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 378689	(5.07, N/A) (N/A, 0.04, N/A)	788.7	N/A	4.1847 [ 4.0000 ]	104.6% { 115.9% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 293182	(6.21, N/A) (N/A, 0.04, N/A)	489.7	N/A	2.1289 [ 2.0000 ]	106.4% { 105.9% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 295220	(7.14, N/A) (N/A, 0.03, N/A)	809.1	N/A	2.4695 [ 2.0000 ]	123.5% { 127.0% }			
13C8_PFOA_EIS	(421.0 / 376.0) 299548	(7.95, N/A) (N/A, 0.03, N/A)	546.8	N/A	2.1386 [ 2.0000 ]	106.9% { 129.2% }			
13C9_PFNA_EIS	(472.0 / 427.0) 114704	(8.69, N/A) (N/A, 0.03, N/A)	287.6	N/A	0.9711 [ 1.0000 ]	97.1% { 111.5% }			
13C6_PFDA_EIS	(519.0 / 474.0) 144918	(9.37, N/A) (N/A, 0.02, N/A)	328.9	N/A	1.0607 [ 1.0000 ]	106.1% { 118.7% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 218176	(9.74, N/A) (N/A, 0.01, N/A)	312.7	N/A	1.1627 [ 1.0000 ]	116.3% { 124.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 261951	(9.91, N/A) (N/A, 0.01, N/A)	534.3	N/A	1.1351 [ 1.0000 ]	113.5% { 125.3% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 176447	(10.14, N/A) (N/A, 0.00, N/A)	584.1	N/A	1.2178 [ 1.0000 ]	121.8% { 130.8% }			
13C3_PFBs_EIS	(302.0 / 80.0) 752812	(6.17, N/A) (N/A, 0.03, N/A)	760.0	N/A	2.0925 [ 2.0000 ]	104.6% { 110.7% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 447749	(8.09, N/A) (N/A, 0.03, N/A)	867.6	N/A	2.2114 [ 2.0000 ]	110.6% { 118.6% }			
13C8_PFOS_EIS	(507.0 / 80.0) 690330	(9.51, N/A) (N/A, 0.01, N/A)	462.3	N/A	2.1690 [ 2.0000 ]	108.5% { 116.0% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 78484	(5.87, N/A) (N/A, 0.04, N/A)	500.6	N/A	3.7325 [ 4.0000 ]	93.3% { 104.9% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 118356	(7.61, N/A) (N/A, 0.03, N/A)	568.3	N/A	4.6035 [ 4.0000 ]	115.1% { 117.3% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 97302	(9.02, N/A) (N/A, 0.02, N/A)	464.8	N/A	3.7934 [ 4.0000 ]	94.8% { 100.3% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 1076678	(10.18, N/A) (N/A, 0.01, N/A)	700.9	N/A	2.2365 [ 2.0000 ]	111.8% { 121.9% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 249249	(10.60, N/A) (N/A, 0.00, N/A)	735.8	N/A	2.0170 [ 2.0000 ]	100.9% { 106.6% }			
D5_NEtFOSA_EIS	(531.1 / 169.0) 232935	(10.69, N/A) (N/A, 0.00, N/A)	1056.0	N/A	2.1726 [ 2.0000 ]	108.6% { 123.0% }			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03835-CCV2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (24)  
 Acquired: 2022/12/14 - 16:13

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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) 303729	(9.55, N/A) (N/A, 0.02, N/A)	542.9	N/A	4.0320 [ 4.0000 ]	100.8% { 119.7% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 324451	(9.71, N/A) (N/A, 0.01, N/A)	332.2	N/A	4.7600 [ 4.0000 ]	119.0% { 132.1% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 570393	(10.57, N/A) (N/A, 0.00, N/A)	1024.2	N/A	24.0770 [ 20.0000 ]	120.4% { 140.5% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 288521	(10.66, N/A) (N/A, 0.00, N/A)	1538.8	N/A	24.3053 [ 20.0000 ]	121.5% { 132.2% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 847018	(6.56, N/A) (N/A, 0.03, N/A)	1152.8	N/A	10.0409 [ 8.0000 ]	125.5% { 127.5% }			



# INITIAL AND CONTINUING CALIBRATION CHECK

## EPA 1633

Laboratory: APPL, LLC  
 Client: AECOM  
 Instrument ID: Saphira  
 Standard ID: 22L0179

Work Order: 22L0083  
 Project: Red Hill AFFF Assessment Sampling  
 Calibration: 2251013  
 Sequence: SB03835

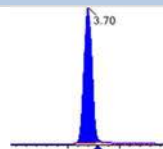
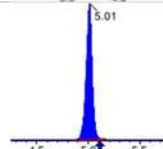
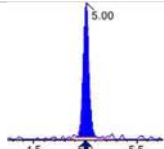
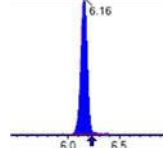
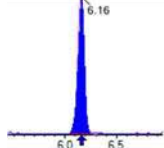
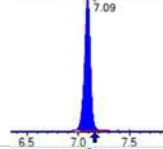
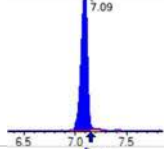
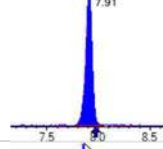
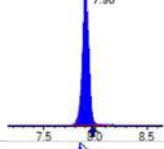
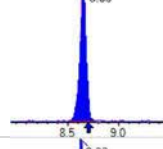
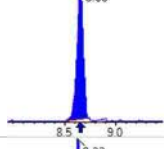
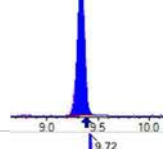
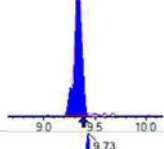
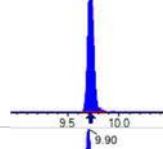
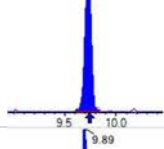
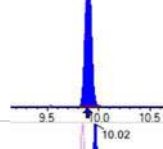
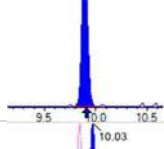
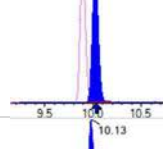
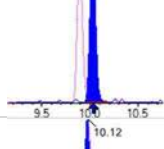
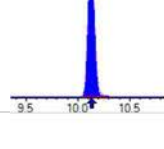
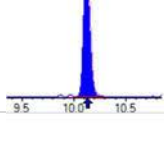
Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB03835-CCV3	PFBA	8.00	7.73	96.6	ng/mL	+/- 30.00%
	PFPEA	4.00	3.80	94.9	ng/mL	+/- 30.00%
	PFHXA	2.00	2.14	107	ng/mL	+/- 30.00%
	PFHPA	2.00	2.12	106	ng/mL	+/- 30.00%
	PFOA	2.00	1.99	99.4	ng/mL	+/- 30.00%
	PFNA	2.00	1.88	93.9	ng/mL	+/- 30.00%
	PFDA	2.00	2.16	108	ng/mL	+/- 30.00%
	PFUnA	2.00	2.14	107	ng/mL	+/- 30.00%
	PFDOA	2.00	1.92	95.9	ng/mL	+/- 30.00%
	PFTRDA	2.00	1.95	97.5	ng/mL	+/- 30.00%
	PFTEDA	2.00	2.27	114	ng/mL	+/- 30.00%
	PFBS	1.77	1.63	92.1	ng/mL	+/- 30.00%
	PFPEs	1.88	2.00	106	ng/mL	+/- 30.00%
	PFHXS	1.83	1.85	101	ng/mL	+/- 30.00%
	PFHPS	1.91	1.75	91.6	ng/mL	+/- 30.00%
	PFOS	1.86	1.81	97.1	ng/mL	+/- 30.00%
	PFNS	1.92	1.86	96.9	ng/mL	+/- 30.00%
	PFDS	1.93	1.92	99.3	ng/mL	+/- 30.00%
	PFDOS	1.94	1.92	99.0	ng/mL	+/- 30.00%
	4:2FTS	7.50	7.52	100	ng/mL	+/- 30.00%
	6:2FTS	7.60	7.54	99.3	ng/mL	+/- 30.00%
	8:2FTS	7.68	8.95	117	ng/mL	+/- 30.00%
	PFOSA	2.00	2.09	105	ng/mL	+/- 30.00%
	NMeFOSA	8.00	8.54	107	ng/mL	+/- 30.00%
	NEtFOSA	8.00	8.26	103	ng/mL	+/- 30.00%
	NMeFOSAA	2.00	1.93	96.7	ng/mL	+/- 30.00%
	NEtFOSAA	2.00	2.11	106	ng/mL	+/- 30.00%
	NMeFOSE	8.00	7.91	98.9	ng/mL	+/- 30.00%
	NEtFOSE	8.00	7.93	99.1	ng/mL	+/- 30.00%
	HFPO-DA	4.00	4.49	112	ng/mL	+/- 30.00%

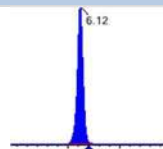
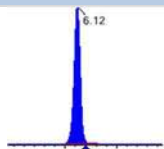
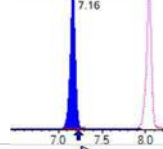
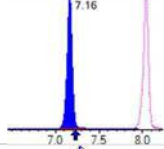
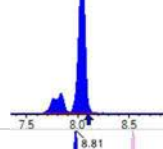
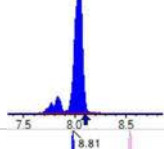
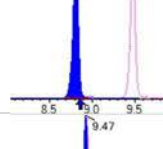
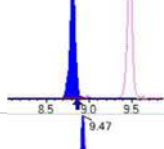
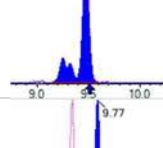
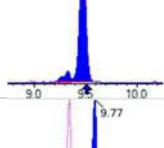
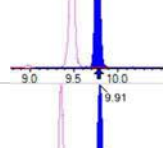
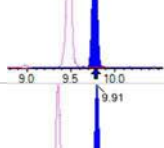
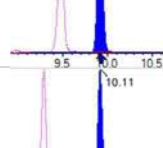
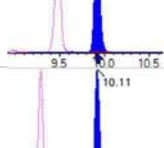
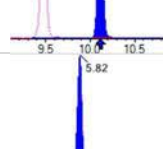
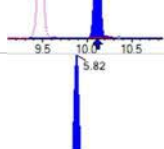
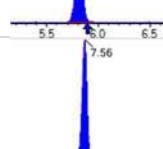
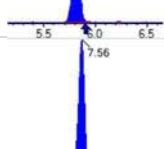
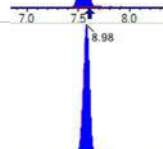
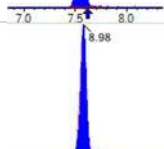

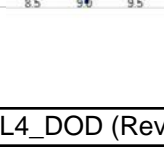
# INITIAL AND CONTINUING CALIBRATION CHECK

## EPA 1633

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Instrument ID:	Saphira	Calibration:	2251013
Standard ID:	22L0179	Sequence:	SB03835

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB03835-CCV3	ADONA	3.78	3.93	104	ng/mL	+/- 30.00%
	PFEESA	3.56	3.76	106	ng/mL	+/- 30.00%
	PFMPA	4.00	3.78	94.5	ng/mL	+/- 30.00%
	PFMBA	4.00	3.87	96.8	ng/mL	+/- 30.00%
	NFDHA	4.00	4.84	121	ng/mL	+/- 30.00%
	9CL-PF3ONS	3.74	3.99	107	ng/mL	+/- 30.00%
	11CL-PF3OUDS	3.78	4.17	110	ng/mL	+/- 30.00%
	3:3FTCA	8.00	8.47	106	ng/mL	+/- 30.00%
	5:3FTCA	8.00	8.50	106	ng/mL	+/- 30.00%
	7:3FTCA	8.00	8.51	106	ng/mL	+/- 30.00%

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(212.9 / 169.0) 481915	(3.70, 1.00) (0.00, N/A, 0.0)	60.0	N/A 0.0 0.0	7.7313 [ 8.0000 ]	96.6%			
PFPeA	(262.9 / 219.0) 321883 (262.9 / 69.0) 4123	(5.01, 1.00) (0.00, N/A, 0.2)	626.5 137.2	0.0128 102.0 109.1	3.7973 [ 4.0000 ]	94.9%			
PFHxA	(313.0 / 269.0) 267389 (313.0 / 119.0) 27476	(6.16, 1.00) (0.01, N/A, -0.2)	570.7 271.4	0.1028 111.0 96.5	2.1363 [ 2.0000 ]	106.8%			
PFHpA	(363.0 / 319.0) 252320 (363.0 / 169.0) 68808	(7.09, 1.00) (0.00, N/A, 0.1)	454.5 393.7	0.2727 87.6 84.2	2.1248 [ 2.0000 ]	106.2%			
PFOA	(413.0 / 369.0) 257208 (413.0 / 169.0) 86040	(7.91, 1.00) (0.00, N/A, 0.3)	449.1 529.4	0.3345 99.7 114.8	1.9878 [ 2.0000 ]	99.4%			
PFNA	(463.0 / 419.0) 191080 (463.0 / 169.0) 38633	(8.65, 1.00) (0.00, N/A, 0.0)	383.1 95.9	0.2022 115.2 99.1	1.8788 [ 2.0000 ]	93.9%			
PFDA	(513.0 / 469.0) 276792 (513.0 / 169.0) 28887	(9.33, 1.00) (0.00, N/A, -0.1)	349.9 182.4	0.1044 103.7 79.7	2.1620 [ 2.0000 ]	108.1%			
PFUnA	(563.0 / 519.0) 334181 (563.0 / 169.0) 30506	(9.72, 1.00) (0.00, N/A, -0.4)	568.3 237.1	0.0913 99.7 105.2	2.1351 [ 2.0000 ]	106.8%			
PFDoA	(613.0 / 569.0) 372032 (613.0 / 169.0) 43219	(9.90, 1.00) (0.01, N/A, 0.4)	551.7 173.2	0.1162 90.6 81.6	1.9174 [ 2.0000 ]	95.9%			
PFTrDA	(663.0 / 619.0) 311821 (663.0 / 169.0) 50171	(10.02, 1.01) (N/A, -0.01, -0.2)	548.2 176.2	0.1609 73.3 69.8	1.9493 [ 2.0000 ]	97.5%			
PFTeDA	(713.0 / 669.0) 293668 (713.0 / 169.0) 57677	(10.13, 1.00) (0.00, N/A, 0.5)	621.1 227.0	0.1964 105.6 111.9	2.2722 [ 2.0000 ]	113.6%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(298.9 / 80.0) 350234 (298.9 / 99.0) 220603	(6.12, 1.00) (0.00, N/A, 0.0)	617.7 479.1	0.6299 87.4 94.8	1.6310 [ 1.7695 ]	92.2%			
PFPeS	(349.0 / 80.0) 683163 (349.0 / 99.0) 253458	(7.16, 0.89) (N/A, -0.02, 0.1)	777.1 648.1	0.3710 99.1 99.1	1.9985 [ 1.8768 ]	106.5%			
PFHxS	(399.0 / 80.0) 576261 (399.0 / 99.0) 190814	(8.04, 1.00) (0.00, N/A, 0.1)	3980.6 380521.3	0.3311 102.7 95.7	1.8468 [ 1.8220 ]	101.4%			
PFHpS	(449.0 / 80.0) 524792 (449.0 / 99.0) 149372	(8.81, 0.93) (N/A, -0.02, -0.1)	623.1 588.1	0.2846 92.7 95.2	1.7500 [ 1.9028 ]	92.0%			
PFOS	(499.0 / 80.0) 657900 (499.0 / 99.0) 156824	(9.47, 1.00) (0.00, N/A, 0.0)	124.7 139.1	0.2384 103.9 93.5	1.8053 [ 1.8550 ]	97.3%			
PFNS	(549.0 / 80.0) 835259 (549.0 / 99.0) 192284	(9.77, 1.03) (N/A, -0.01, -0.1)	926.6 684.0	0.2302 88.8 97.2	1.8602 [ 1.9198 ]	96.9%			
PFDS	(599.0 / 80.0) 1131673 (599.0 / 99.0) 260162	(9.91, 1.05) (N/A, -0.01, 0.0)	902.1 527.5	0.2299 102.1 93.2	1.9171 [ 1.9262 ]	99.5%			
PFDoS	(698.9 / 80.0) 573519 (698.9 / 99.0) 129574	(10.11, 1.07) (N/A, -0.01, -0.1)	936.0 429.5	0.2259 111.6 112.0	1.9206 [ 1.9391 ]	99.0%			
4:2FTS	(327.0 / 307.0) 530784 (327.0 / 81.0) 298465	(5.82, 1.00) (0.00, N/A, 0.1)	790.5 547.3	0.5623 92.7 98.5	7.5218 [ 7.4762 ]	100.6%			
6:2FTS	(427.0 / 407.0) 329124 (427.0 / 81.0) 239545	(7.56, 1.00) (0.00, N/A, 0.1)	733.1 593.2	0.7278 112.0 98.1	7.5432 [ 7.5923 ]	99.4%			
8:2FTS	(527.0 / 507.0) 288168 (527.0 / 81.0) 171958	(8.98, 1.00) (0.00, N/A, 0.1)	565.3 418.1	0.5967 95.2 86.7	8.9530 [ 7.6663 ]	116.8%			

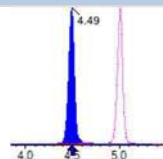
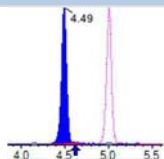
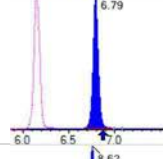
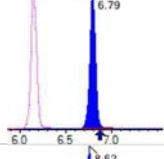
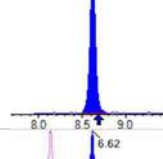
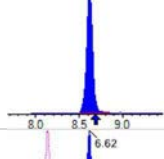
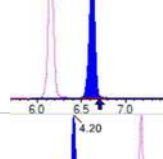
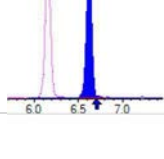
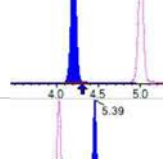
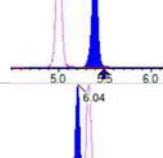
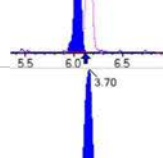
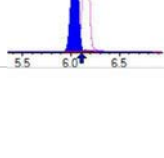
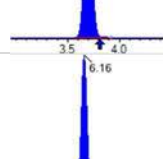
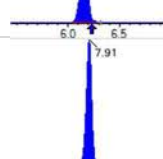
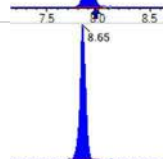



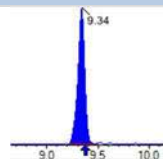
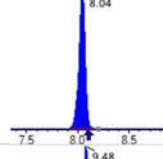
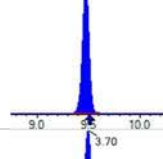
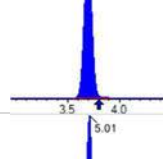
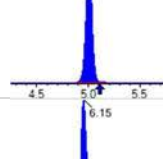
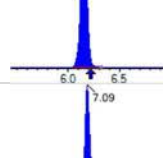
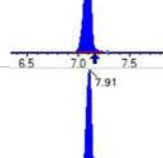
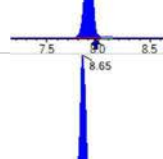
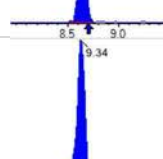
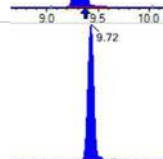

Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

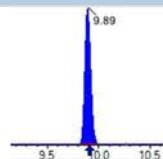
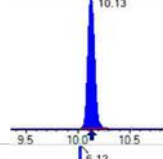
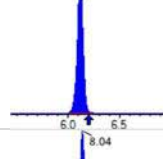
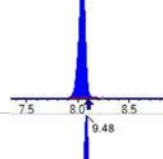
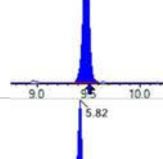
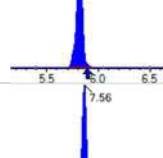
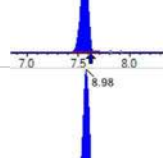
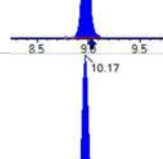
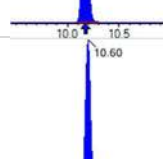
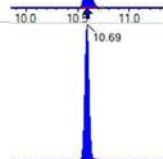

Sample I.D.: SB03835-CCV3  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (38)  
 Acquired: 2022/12/14 - 19:11

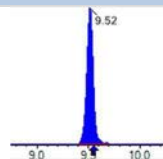
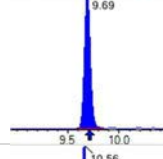
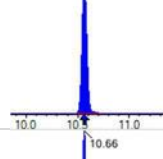
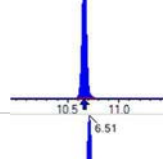
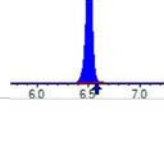
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 949427 (498.0 / 478.0) 26168	(10.17, 1.00) (0.00, N/A, -0.3)	924.3 3161.0	0.0276 121.1 99.7	2.0924 [2.0000]	104.6%			
NMeFOSA	(511.9 / 219.0) 911267 (511.9 / 169.0) 620561	(10.60, 1.00) (0.00, N/A, 0.1)	1236.0 944.1	0.6810 106.7 106.7	8.5429 [8.0000]	106.8%			
NEIFOSA	(526.0 / 219.0) 853071 (526.0 / 169.0) 858551	(10.69, 1.00) (0.00, N/A, 0.0)	1969.8 1697.9	1.0064 94.3 92.7	8.2596 [8.0000]	103.2%			
NMeFOSAA	(570.0 / 419.0) 115043 (570.0 / 483.0) 63858	(9.52, 1.00) (0.01, N/A, 0.1)	318.5 609.2	0.5551 96.7 106.2	1.9336 [2.0000]	96.7%			
NEIFOSAA	(584.0 / 419.0) 124091 (584.0 / 526.0) 75212	(9.69, 1.00) (0.00, N/A, 0.3)	390.9 7438.2	0.6061 106.9 102.8	2.1106 [2.0000]	105.5%			
NMeFOSE	(616.1 / 59.0) 264445	(10.57, 1.00) (0.01, N/A, 0.0)	816.7	N/A 0.0 0.0	7.9123 [8.0000]	98.9%			
NEtFOSE	(630.0 / 59.0) 68588	(10.67, 1.00) (0.00, N/A, 0.0)	925.0	N/A 0.0 0.0	7.9269 [8.0000]	99.1%			
HFPO-DA	(285.0 / 169.0) 253372 (285.0 / 185.0) 766390	(6.51, 1.00) (0.00, N/A, 0.1)	818.0 1155.9	3.0248 115.0 103.2	4.4891 [4.0000]	112.2%			
ADONA	(377.0 / 85.0) 946703 (377.0 / 251.0) 122217	(7.41, 1.14) (N/A, -0.01, 0.0)	882.3 373.5	0.1291 109.5 120.2	3.9332 [3.7708]	104.3%			
9CI-Pf3ONS	(531.0 / 351.0) 2721079 (533.0 / 353.0) 886535	(9.72, 1.49) (N/A, -0.01, 0.0)	928.1 846.2	0.3258 112.4 104.5	3.9871 [3.7330]	106.8%			
11CI-PF3OUDS	(631.0 / 451.0) 1825561 (633.0 / 453.0) 636817	(10.00, 1.54) (N/A, -0.01, 0.1)	979.4 882.0	0.3488 110.6 100.7	4.1740 [3.7728]	110.6%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 30178 (241.0 / 117.0) 49168	(4.49, 0.90) (N/A, -0.02, 0.1)	446.6 444.4	1.6293 99.4 88.8	8.4712 [ 8.0000 ]	105.9%			
5:3FTCA	(341.0 / 236.7) 212805 (341.0 / 217.0) 371354	(6.79, 1.10) (N/A, -0.02, -0.1)	538.3 545.4	1.7450 110.7 112.8	8.4968 [ 8.0000 ]	106.2%			
7:3FTCA	(441.0 / 317.0) 266805 (441.0 / 337.0) 229733	(8.62, 1.40) (N/A, -0.02, 0.1)	396.2 418.4	0.8611 102.8 106.2	8.5142 [ 8.0000 ]	106.4%			
PFEESA	(315.0 / 135.0) 512043 (315.0 / 83.0) 152316	(6.62, 1.08) (N/A, -0.03, 0.0)	765.1 510.8	0.2975 97.0 97.0	3.7566 [ 3.5698 ]	105.2%			
PFMPA	(229.0 / 85.0) 87006	(4.20, 0.84) (N/A, -0.02, 0.0)	976.3	N/A 0.0 0.0	3.7813 [ 4.0000 ]	94.5%			
PFMBA	(279.0 / 85.0) 298028	(5.39, 1.08) (N/A, -0.02, 0.0)	825.6	N/A 0.0 0.0	3.8701 [ 4.0000 ]	96.8%			
NFDHA	(201.0 / 85.0) 12609 (295.0 / 201.0) 85414	(6.04, 0.98) (N/A, -0.02, 0.0)	267.3 593.3	6.7742 102.8 93.5	4.8441 [ 4.0000 ]	121.1%			
13C3_PFBA_IIS	(216.0 / 172.0) 111854	(3.70, N/A) (N/A, -0.01, N/A)	818.5	N/A	0.9219 [ 1.0000 ]	92.2% { 116.2% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 181331	(6.16, N/A) (N/A, -0.02, N/A)	491.1	N/A	0.9937 [ 1.0000 ]	99.4% { 103.5% }			
13C4_PFOA_IIS	(417.0 / 372.0) 186735	(7.91, N/A) (N/A, -0.01, N/A)	609.6	N/A	1.0697 [ 1.0000 ]	107.0% { 128.8% }			
13C5_PFNA_IIS	(468.0 / 423.0) 139119	(8.65, N/A) (N/A, -0.02, N/A)	345.6	N/A	1.0238 [ 1.0000 ]	102.4% { 118.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 130065	(9.34, N/A) (N/A, -0.01, N/A)	308.9	N/A	0.9374 [ 1.0000 ]	93.7% { 99.3% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 278794	(8.04, N/A) (N/A, -0.02, N/A)	716.0	N/A	0.8638 [ 1.0000 ]	86.4% { 98.4% }			
13C4_PFOS_IIS	(502.8 / 79.9) 304390	(9.48, N/A) (N/A, -0.02, N/A)	454.7	N/A	1.2088 [ 1.0000 ]	120.9% { 119.6% }			
13C4_PFBA_EIS	(217.0 / 172.0) 709892	(3.70, N/A) (N/A, -0.02, N/A)	819.8	N/A	8.3260 [ 8.0000 ]	104.1% { 110.8% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 381981	(5.01, N/A) (N/A, -0.02, N/A)	907.5	N/A	3.8039 [ 4.0000 ]	95.1% { 116.9% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 282481	(6.15, N/A) (N/A, -0.02, N/A)	639.7	N/A	1.8485 [ 2.0000 ]	92.4% { 102.0% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 256625	(7.09, N/A) (N/A, -0.02, N/A)	532.8	N/A	1.9345 [ 2.0000 ]	96.7% { 110.4% }			
13C8_PFOA_EIS	(421.0 / 376.0) 258963	(7.91, N/A) (N/A, -0.02, N/A)	478.8	N/A	1.8086 [ 2.0000 ]	90.4% { 111.7% }			
13C9_PFNA_EIS	(472.0 / 427.0) 111559	(8.65, N/A) (N/A, -0.02, N/A)	332.4	N/A	1.0408 [ 1.0000 ]	104.1% { 108.4% }			
13C6_PFDA_EIS	(519.0 / 474.0) 126614	(9.34, N/A) (N/A, -0.01, N/A)	334.6	N/A	1.0150 [ 1.0000 ]	101.5% { 103.7% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 180428	(9.72, N/A) (N/A, -0.01, N/A)	437.3	N/A	1.0531 [ 1.0000 ]	105.3% { 103.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 224049	(9.89, N/A) (N/A, -0.01, N/A)	482.0	N/A	1.0634 [ 1.0000 ]	106.3% { 107.1% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 141425	(10.13, N/A) (N/A, -0.01, N/A)	458.4	N/A	1.0691 [ 1.0000 ]	106.9% { 104.9% }			
13C3_PFBs_EIS	(302.0 / 80.0) 760091	(6.12, N/A) (N/A, -0.03, N/A)	889.3	N/A	2.3695 [ 2.0000 ]	118.5% { 111.8% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 388563	(8.04, N/A) (N/A, -0.02, N/A)	744.2	N/A	2.1524 [ 2.0000 ]	107.6% { 102.9% }			
13C8_PFOS_EIS	(507.0 / 80.0) 662827	(9.48, N/A) (N/A, -0.01, N/A)	364.9	N/A	1.7490 [ 2.0000 ]	87.4% { 111.3% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 86566	(5.82, N/A) (N/A, -0.01, N/A)	525.9	N/A	4.6172 [ 4.0000 ]	115.4% { 115.7% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 107076	(7.56, N/A) (N/A, -0.02, N/A)	569.5	N/A	4.6710 [ 4.0000 ]	116.8% { 106.1% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 90401	(8.98, N/A) (N/A, -0.02, N/A)	356.5	N/A	3.9527 [ 4.0000 ]	98.8% { 93.2% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 925164	(10.17, N/A) (N/A, 0.00, N/A)	928.8	N/A	1.6139 [ 2.0000 ]	80.7% { 104.8% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 256433	(10.60, N/A) (N/A, 0.00, N/A)	814.5	N/A	1.7427 [ 2.0000 ]	87.1% { 109.6% }			
D5_NEtFOSA_EIS	(531.1 / 169.0) 223465	(10.69, N/A) (N/A, 0.00, N/A)	1034.4	N/A	1.7504 [ 2.0000 ]	87.5% { 118.0% }			



Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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) 307870	(9.52, N/A) (N/A, -0.01, N/A)	730.4	N/A	3.4322 [ 4.0000 ]	85.8% { 121.3% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 270154	(9.69, N/A) (N/A, -0.01, N/A)	264.9	N/A	3.3284 [ 4.0000 ]	83.2% { 110.0% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 495454	(10.56, N/A) (N/A, 0.00, N/A)	828.3	N/A	17.5631 [ 20.0000 ]	87.8% { 122.0% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 255786	(10.66, N/A) (N/A, 0.00, N/A)	1029.0	N/A	18.0956 [ 20.0000 ]	90.5% { 117.2% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 730152	(6.51, N/A) (N/A, -0.01, N/A)	945.9	N/A	7.8001 [ 8.0000 ]	97.5% { 109.9% }			

# INITIAL AND CONTINUING CALIBRATION CHECK

## EPA 1633

Laboratory: APPL, LLC  
 Client: AECOM  
 Instrument ID: Saphira  
 Standard ID: 22L0179

Work Order: 22L0083  
 Project: Red Hill AFFF Assessment Sampling  
 Calibration: 2251013  
 Sequence: SB03835

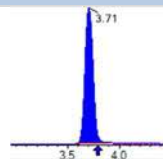
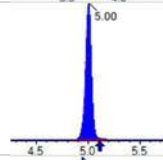
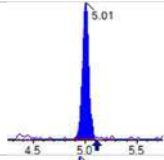
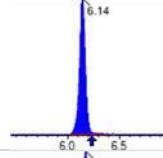
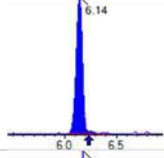
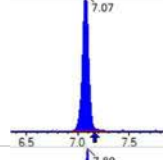
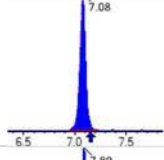
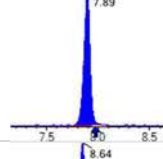
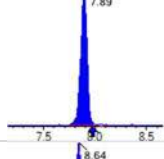
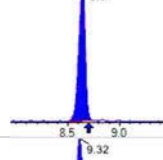
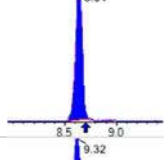
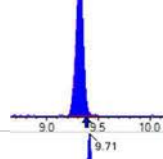
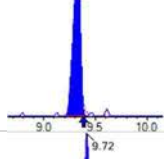
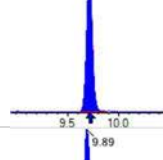
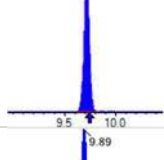
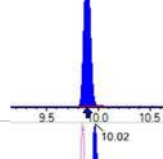
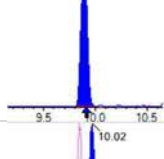
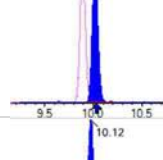
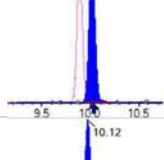
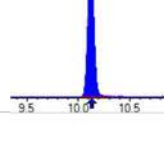
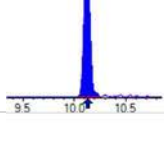
Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB03835-CCV4	PFBA	8.00	7.84	98.0	ng/mL	+/- 30.00%
	PFPEA	4.00	4.13	103	ng/mL	+/- 30.00%
	PFHXA	2.00	2.11	105	ng/mL	+/- 30.00%
	PFHPA	2.00	2.05	102	ng/mL	+/- 30.00%
	PFOA	2.00	2.10	105	ng/mL	+/- 30.00%
	PFNA	2.00	1.86	93.0	ng/mL	+/- 30.00%
	PFDA	2.00	1.72	86.2	ng/mL	+/- 30.00%
	PFUnA	2.00	2.09	105	ng/mL	+/- 30.00%
	PFDOA	2.00	2.10	105	ng/mL	+/- 30.00%
	PFTRDA	2.00	2.42	121	ng/mL	+/- 30.00%
	PFTEDA	2.00	1.85	92.7	ng/mL	+/- 30.00%
	PFBS	1.77	1.98	112	ng/mL	+/- 30.00%
	PFPEs	1.88	1.94	103	ng/mL	+/- 30.00%
	PFHXS	1.83	1.85	101	ng/mL	+/- 30.00%
	PFHPS	1.91	1.58	82.9	ng/mL	+/- 30.00%
	PFOS	1.86	1.83	98.3	ng/mL	+/- 30.00%
	PFNS	1.92	1.59	82.7	ng/mL	+/- 30.00%
	PFDS	1.93	1.66	86.3	ng/mL	+/- 30.00%
	PFDOS	1.94	1.94	100	ng/mL	+/- 30.00%
	4:2FTS	7.50	7.90	105	ng/mL	+/- 30.00%
	6:2FTS	7.60	6.93	91.1	ng/mL	+/- 30.00%
	8:2FTS	7.68	9.09	118	ng/mL	+/- 30.00%
	PFOSA	2.00	1.82	91.1	ng/mL	+/- 30.00%
	NMeFOSA	8.00	8.76	109	ng/mL	+/- 30.00%
	NEtFOSA	8.00	8.40	105	ng/mL	+/- 30.00%
	NMeFOSAA	2.00	2.00	100	ng/mL	+/- 30.00%
	NEtFOSAA	2.00	1.99	99.7	ng/mL	+/- 30.00%
	NMeFOSE	8.00	8.00	100	ng/mL	+/- 30.00%
	NEtFOSE	8.00	7.99	99.8	ng/mL	+/- 30.00%
	HFPO-DA	4.00	3.85	96.1	ng/mL	+/- 30.00%

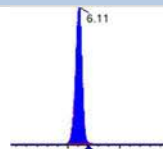
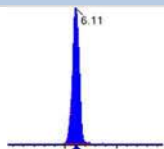
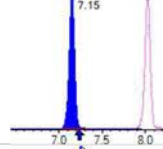
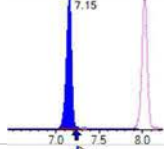
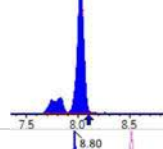
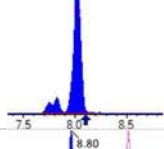
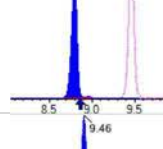
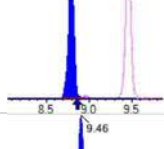
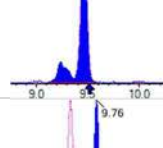
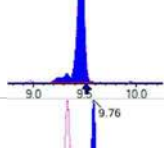
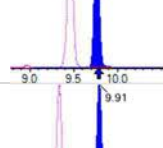
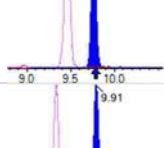
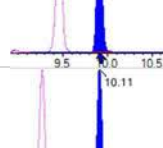
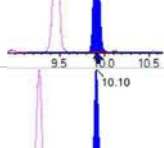
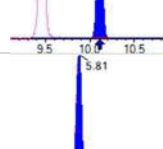
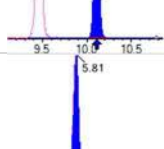
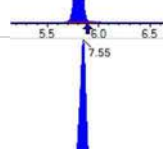
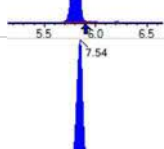
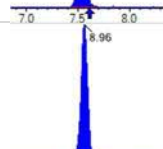
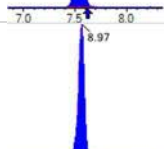

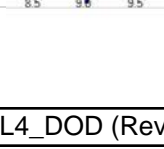
# INITIAL AND CONTINUING CALIBRATION CHECK

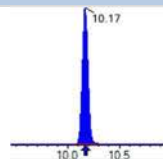
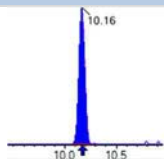
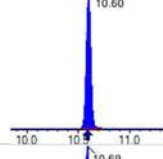
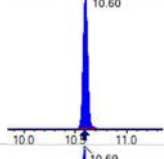
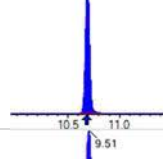
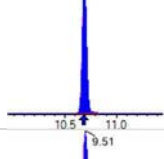
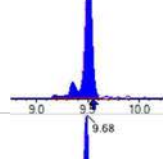
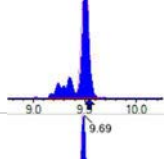
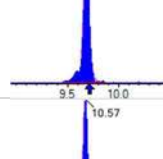
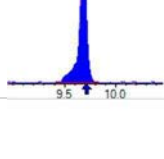
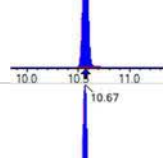
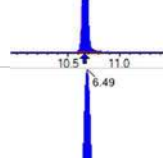
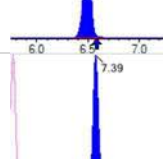
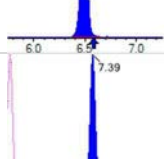
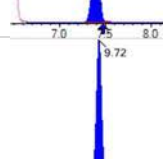
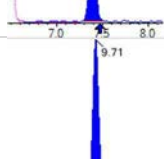
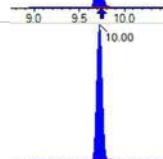
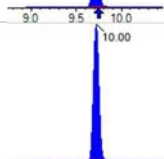
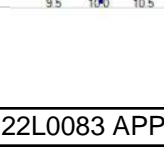
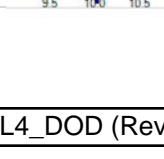
## EPA 1633

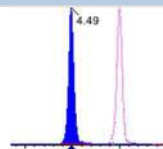
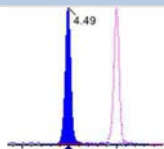
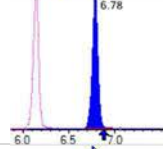
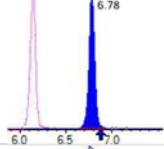
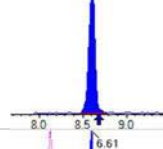
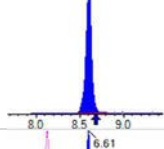
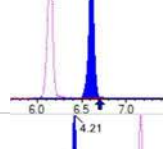
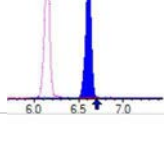
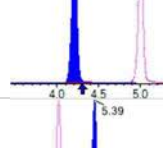
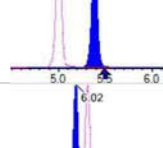
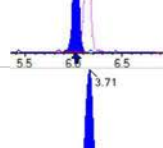
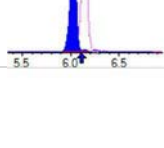
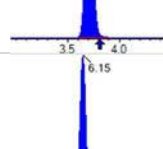
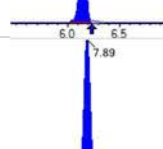
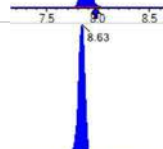

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Instrument ID:	Saphira	Calibration:	2251013
Standard ID:	22L0179	Sequence:	SB03835

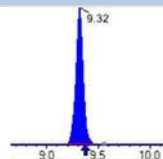
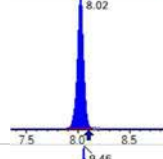
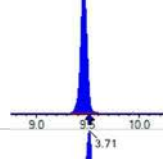
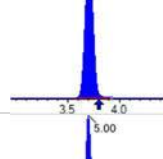
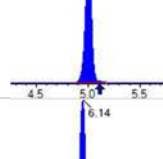
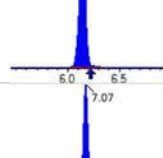
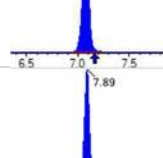
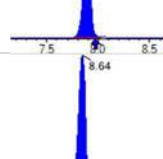
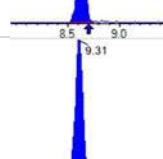
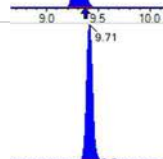
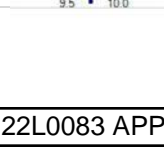
Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB03835-CCV4	ADONA	3.78	3.87	102	ng/mL	+/- 30.00%
	PFEESA	3.56	3.76	106	ng/mL	+/- 30.00%
	PFMPA	4.00	3.99	99.7	ng/mL	+/- 30.00%
	PFMBA	4.00	4.04	101	ng/mL	+/- 30.00%
	NFDHA	4.00	4.37	109	ng/mL	+/- 30.00%
	9CL-PF3ONS	3.74	3.91	105	ng/mL	+/- 30.00%
	11CL-PF3OUDS	3.78	3.90	103	ng/mL	+/- 30.00%
	3:3FTCA	8.00	8.57	107	ng/mL	+/- 30.00%
	5:3FTCA	8.00	8.05	101	ng/mL	+/- 30.00%
	7:3FTCA	8.00	8.68	108	ng/mL	+/- 30.00%

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(212.9 / 169.0) 450871	(3.71, 1.00) (0.00, N/A, 0.0)	66.4	N/A 0.0 0.0	7.8414 [ 8.0000 ]	98.0%			
PFPeA	(262.9 / 219.0) 327381 (262.9 / 69.0) 3918	(5.00, 1.00) (0.00, N/A, -0.1)	755.3 153.9	0.0120 95.3 101.9	4.1292 [ 4.0000 ]	103.2%			
PFHxA	(313.0 / 269.0) 269243 (313.0 / 119.0) 26583	(6.14, 1.00) (0.00, N/A, 0.0)	561.6 264.0	0.0987 106.6 92.7	2.1098 [ 2.0000 ]	105.5%			
PFHpA	(363.0 / 319.0) 237502 (363.0 / 169.0) 71835	(7.07, 1.00) (0.00, N/A, -0.2)	450.3 449.1	0.3025 97.2 93.4	2.0454 [ 2.0000 ]	102.3%			
PFOA	(413.0 / 369.0) 255526 (413.0 / 169.0) 80297	(7.89, 1.00) (0.00, N/A, 0.0)	450.7 574.2	0.3142 93.6 107.9	2.1024 [ 2.0000 ]	105.1%			
PFNA	(463.0 / 419.0) 191619 (463.0 / 169.0) 41576	(8.64, 1.00) (0.00, N/A, 0.1)	368.8 79.6	0.2170 123.6 106.4	1.8598 [ 2.0000 ]	93.0%			
PFDA	(513.0 / 469.0) 243922 (513.0 / 169.0) 26582	(9.32, 1.00) (0.00, N/A, -0.1)	374.6 176.1	0.1090 108.3 83.2	1.7244 [ 2.0000 ]	86.2%			
PFUnA	(563.0 / 519.0) 320256 (563.0 / 169.0) 31255	(9.71, 1.00) (0.00, N/A, -0.3)	431.5 793136.8	0.0976 106.6 112.4	2.0941 [ 2.0000 ]	104.7%			
PFDoA	(613.0 / 569.0) 392395 (613.0 / 169.0) 49437	(9.89, 1.00) (0.00, N/A, 0.0)	487.1 197.1	0.1260 98.3 88.5	2.1030 [ 2.0000 ]	105.1%			
PFTrDA	(663.0 / 619.0) 372363 (663.0 / 169.0) 61815	(10.02, 1.01) (N/A, -0.01, 0.0)	556.6 267.2	0.1660 75.6 72.0	2.4206 [ 2.0000 ]	121.0%			
PFTeDA	(713.0 / 669.0) 274126 (713.0 / 169.0) 60536	(10.12, 1.00) (0.00, N/A, 0.0)	444.5 205.7	0.2208 118.7 125.8	1.8542 [ 2.0000 ]	92.7%			

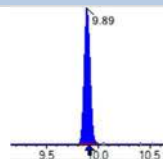
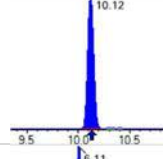
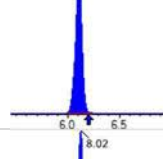
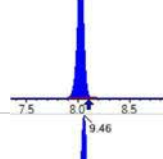
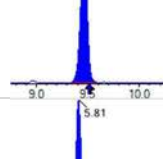
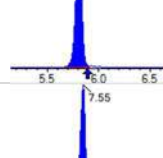
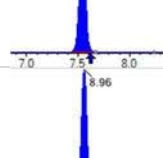
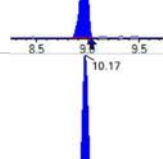
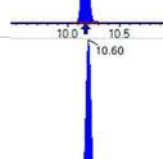
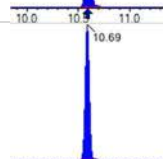
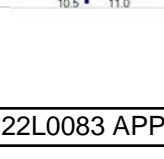
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 377744 (298.9 / 99.0) 246677	(6.11, 1.00) (0.00, N/A, 0.0)	872.9 590.6	0.6530 90.7 98.2	1.9782 [ 1.7695 ]	111.8%			
PFPeS	(349.0 / 80.0) 657051 (349.0 / 99.0) 230429	(7.15, 0.89) (N/A, -0.04, -0.2)	743.4 550.4	0.3507 93.6 93.7	1.9448 [ 1.8768 ]	103.6%			
PFHxS	(399.0 / 80.0) 570135 (399.0 / 99.0) 189905	(8.02, 1.00) (0.00, N/A, 0.2)	48713.5 7610.1	0.3331 103.3 96.3	1.8487 [ 1.8220 ]	101.5%			
PFHpS	(449.0 / 80.0) 484786 (449.0 / 99.0) 139707	(8.80, 0.93) (N/A, -0.03, 0.1)	389.7 533.9	0.2882 93.9 96.4	1.5830 [ 1.9028 ]	83.2%			
PFOS	(499.0 / 80.0) 680127 (499.0 / 99.0) 164956	(9.46, 1.00) (0.00, N/A, 0.0)	145.4 161.5	0.2425 105.7 95.1	1.8275 [ 1.8550 ]	98.5%			
PFNS	(549.0 / 80.0) 727887 (549.0 / 99.0) 204776	(9.76, 1.03) (N/A, -0.02, 0.0)	626.3 489.0	0.2813 108.5 118.8	1.5874 [ 1.9198 ]	82.7%			
PFDS	(599.0 / 80.0) 1003674 (599.0 / 99.0) 250942	(9.91, 1.05) (N/A, -0.01, 0.0)	651.2 434.5	0.2500 111.1 101.4	1.6649 [ 1.9262 ]	86.4%			
PFDoS	(698.9 / 80.0) 592197 (698.9 / 99.0) 147587	(10.11, 1.07) (N/A, -0.01, 0.2)	1035.6 505.6	0.2492 123.1 123.5	1.9419 [ 1.9391 ]	100.1%			
4:2FTS	(327.0 / 307.0) 489799 (327.0 / 81.0) 309933	(5.81, 1.00) (0.00, N/A, -0.1)	878.6 602.0	0.6328 104.3 110.8	7.9009 [ 7.4762 ]	105.7%			
6:2FTS	(427.0 / 407.0) 317645 (427.0 / 81.0) 208806	(7.55, 1.00) (0.00, N/A, 0.2)	739.4 693.4	0.6574 101.2 88.6	6.9261 [ 7.5923 ]	91.2%			
8:2FTS	(527.0 / 507.0) 280993 (527.0 / 81.0) 186284	(8.96, 1.00) (0.00, N/A, -0.2)	353.6 376.2	0.6630 105.7 96.4	9.0917 [ 7.6663 ]	118.6%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 955187 (498.0 / 478.0) 22849	(10.17, 1.00) (0.00, N/A, 0.2)	954.0 1204.7	0.0239 105.1 86.6	1.8214 [2.0000]	91.1%			
NMeFOSA	(511.9 / 219.0) 926927 (511.9 / 169.0) 632587	(10.60, 1.00) (0.00, N/A, 0.1)	1050.7 1277.3	0.6825 107.0 106.9	8.7588 [8.0000]	109.5%			
NEIFOSA	(526.0 / 219.0) 878304 (526.0 / 169.0) 890716	(10.69, 1.00) (0.00, N/A, 0.0)	1688.8 993.9	1.0141 95.0 93.4	8.4004 [8.0000]	105.0%			
NMeFOSAA	(570.0 / 419.0) 115565 (570.0 / 483.0) 57739	(9.51, 1.00) (0.01, N/A, 0.2)	259.7 5541.9	0.4996 87.0 95.6	2.0020 [2.0000]	100.1%			
NEIFOSAA	(584.0 / 419.0) 117225 (584.0 / 526.0) 69707	(9.68, 1.00) (0.00, N/A, 0.0)	22370.5 2696.0	0.5946 104.9 100.9	1.9947 [2.0000]	99.7%			
NMeFOSE	(616.1 / 59.0) 269891	(10.57, 1.00) (0.01, N/A, 0.0)	810.7	N/A 0.0 0.0	8.0032 [8.0000]	100.0%			
NEtFOSE	(630.0 / 59.0) 70122	(10.67, 1.00) (0.01, N/A, 0.0)	887.9	N/A 0.0 0.0	7.9867 [8.0000]	99.8%			
HFPO-DA	(285.0 / 169.0) 205729 (285.0 / 185.0) 632917	(6.49, 1.00) (0.00, N/A, -0.1)	824.6 892.6	3.0765 117.0 104.9	3.8454 [4.0000]	96.1%			
ADONA	(377.0 / 85.0) 882497 (377.0 / 251.0) 114663	(7.39, 1.14) (N/A, -0.03, 0.0)	763.6 327.5	0.1299 110.2 121.0	3.8681 [3.7708]	102.6%			
9CI-Pf3ONS	(531.0 / 351.0) 2528669 (533.0 / 353.0) 838276	(9.72, 1.50) (N/A, -0.01, 0.2)	812.1 698.4	0.3315 114.3 106.4	3.9089 [3.7330]	104.7%			
11CI-PF3OUDS	(631.0 / 451.0) 1618135 (633.0 / 453.0) 554865	(10.00, 1.54) (N/A, -0.01, 0.2)	1228.1 750.0	0.3429 108.7 99.0	3.9032 [3.7728]	103.5%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 28557 (241.0 / 117.0) 50655	(4.49, 0.90) (N/A, -0.03, 0.1)	487.6 510.5	1.7738 108.2 96.7	8.5705 [ 8.0000 ]	107.1%			
5:3FTCA	(341.0 / 236.7) 205527 (341.0 / 217.0) 340856	(6.78, 1.10) (N/A, -0.03, 0.2)	515.8 665.8	1.6584 105.2 107.2	8.0486 [ 8.0000 ]	100.6%			
7:3FTCA	(441.0 / 317.0) 277249 (441.0 / 337.0) 201686	(8.61, 1.40) (N/A, -0.03, 0.2)	356.1 395.6	0.7275 86.8 89.7	8.6776 [ 8.0000 ]	108.5%			
PFEESA	(315.0 / 135.0) 523123 (315.0 / 83.0) 155040	(6.61, 1.08) (N/A, -0.04, 0.0)	1151.4 563.0	0.2964 96.7 96.6	3.7642 [ 3.5698 ]	105.4%			
PFMPA	(229.0 / 85.0) 85864	(4.21, 0.84) (N/A, -0.01, 0.0)	1012.2	N/A 0.0 0.0	3.9897 [ 4.0000 ]	99.7%			
PFMBA	(279.0 / 85.0) 291280	(5.39, 1.08) (N/A, -0.03, 0.0)	956.8	N/A 0.0 0.0	4.0441 [ 4.0000 ]	101.1%			
NFDHA	(201.0 / 85.0) 11617 (295.0 / 201.0) 79678	(6.02, 0.98) (N/A, -0.04, -0.4)	254.9 489.3	6.8589 104.1 94.6	4.3653 [ 4.0000 ]	109.1%			
13C3_PFBA_IIS	(216.0 / 172.0) 101309	(3.71, N/A) (N/A, -0.01, N/A)	971.6	N/A	0.8350 [ 1.0000 ]	83.5% { 105.2% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 173581	(6.15, N/A) (N/A, -0.03, N/A)	589.9	N/A	0.9512 [ 1.0000 ]	95.1% { 99.1% }			
13C4_PFOA_IIS	(417.0 / 372.0) 158748	(7.89, N/A) (N/A, -0.03, N/A)	770.9	N/A	0.9094 [ 1.0000 ]	90.9% { 109.5% }			
13C5_PFNA_IIS	(468.0 / 423.0) 131812	(8.63, N/A) (N/A, -0.04, N/A)	422.9	N/A	0.9700 [ 1.0000 ]	97.0% { 112.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 147621	(9.32, N/A) (N/A, -0.03, N/A)	368.2	N/A	1.0639 [ 1.0000 ]	106.4% { 112.7% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 308448	(8.02, N/A) (N/A, -0.04, N/A)	629.3	N/A	0.9557 [ 1.0000 ]	95.6% { 108.9% }			
13C4_PFOS_IIS	(502.8 / 79.9) 228709	(9.46, N/A) (N/A, -0.03, N/A)	630.1	N/A	0.9082 [ 1.0000 ]	90.8% { 89.8% }			
13C4_PFBA_EIS	(217.0 / 172.0) 654836	(3.71, N/A) (N/A, -0.01, N/A)	926.4	N/A	8.4797 [ 8.0000 ]	106.0% { 102.2% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 357277	(5.00, N/A) (N/A, -0.03, N/A)	835.1	N/A	3.7168 [ 4.0000 ]	92.9% { 109.4% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 288014	(6.14, N/A) (N/A, -0.03, N/A)	726.8	N/A	1.9688 [ 2.0000 ]	98.4% { 104.0% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 250930	(7.07, N/A) (N/A, -0.03, N/A)	695.2	N/A	1.9760 [ 2.0000 ]	98.8% { 107.9% }			
13C8_PFOA_EIS	(421.0 / 376.0) 243249	(7.89, N/A) (N/A, -0.03, N/A)	653.9	N/A	1.9983 [ 2.0000 ]	99.9% { 104.9% }			
13C9_PFNA_EIS	(472.0 / 427.0) 113014	(8.64, N/A) (N/A, -0.03, N/A)	308.7	N/A	1.1128 [ 1.0000 ]	111.3% { 109.8% }			
13C6_PFDA_EIS	(519.0 / 474.0) 139899	(9.31, N/A) (N/A, -0.03, N/A)	67379.9	N/A	0.9881 [ 1.0000 ]	98.8% { 114.6% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 176292	(9.71, N/A) (N/A, -0.02, N/A)	417.5	N/A	0.9066 [ 1.0000 ]	90.7% { 100.9% }			



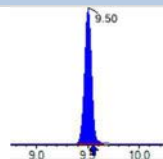
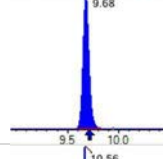
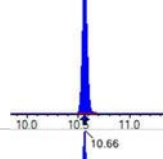
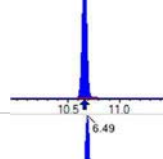
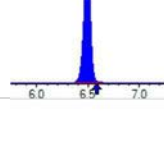
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
13C2_PFDa_EIS	(615.0 / 570.0) 215462	(9.89, N/A) (N/A, -0.01, N/A)	411.3	N/A	0.9011 [ 1.0000 ]	90.1% { 103.0% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 161774	(10.12, N/A) (N/A, -0.01, N/A)	346.8	N/A	1.0775 [ 1.0000 ]	107.7% { 119.9% }			
13C3_PFBs_EIS	(302.0 / 80.0) 675896	(6.11, N/A) (N/A, -0.04, N/A)	729.8	N/A	1.9044 [ 2.0000 ]	95.2% { 99.4% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 384032	(8.02, N/A) (N/A, -0.03, N/A)	862.5	N/A	1.9227 [ 2.0000 ]	96.1% { 101.7% }			
13C8_PFOS_EIS	(507.0 / 80.0) 676908	(9.46, N/A) (N/A, -0.03, N/A)	449.8	N/A	2.3771 [ 2.0000 ]	118.9% { 113.7% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 76049	(5.81, N/A) (N/A, -0.03, N/A)	519.8	N/A	3.6663 [ 4.0000 ]	91.7% { 101.6% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 112548	(7.55, N/A) (N/A, -0.03, N/A)	770.6	N/A	4.4377 [ 4.0000 ]	110.9% { 111.5% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 86805	(8.96, N/A) (N/A, -0.04, N/A)	371.3	N/A	3.4306 [ 4.0000 ]	85.8% { 89.5% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 1069280	(10.17, N/A) (N/A, 0.00, N/A)	1261.9	N/A	2.4825 [ 2.0000 ]	124.1% { 121.1% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 254409	(10.60, N/A) (N/A, 0.00, N/A)	898.0	N/A	2.3011 [ 2.0000 ]	115.1% { 108.8% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 226218	(10.69, N/A) (N/A, 0.00, N/A)	898.3	N/A	2.3583 [ 2.0000 ]	117.9% { 119.5% }			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03835-CCV4  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (53)  
 Acquired: 2022/12/14 - 22:22

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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) 298694	(9.50, N/A) (N/A, -0.03, N/A)	470.2	N/A	4.4318 [ 4.0000 ]	110.8% { 117.7% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 270039	(9.68, N/A) (N/A, -0.02, N/A)	509.7	N/A	4.4279 [ 4.0000 ]	110.7% { 109.9% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 499916	(10.56, N/A) (N/A, 0.00, N/A)	1277.7	N/A	23.5854 [ 20.0000 ]	117.9% { 123.1% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 259547	(10.66, N/A) (N/A, 0.00, N/A)	1277.7	N/A	24.4376 [ 20.0000 ]	122.2% { 118.9% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 692090	(6.49, N/A) (N/A, -0.03, N/A)	906.0	N/A	7.7237 [ 8.0000 ]	96.5% { 104.2% }			

# INITIAL AND CONTINUING CALIBRATION CHECK

## EPA 1633

Laboratory: APPL, LLC  
 Client: AECOM  
 Instrument ID: Saphira  
 Standard ID: 22L0304

Work Order: 22L0083  
 Project: Red Hill AFFF Assessment Sampling  
 Calibration: 2251019  
 Sequence: SB03903

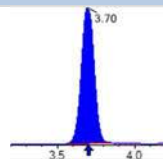
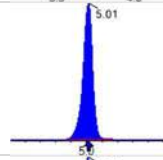
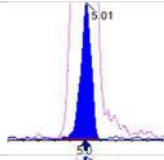
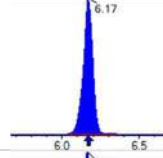
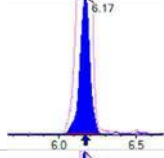
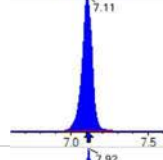
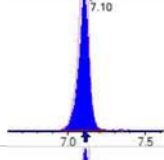
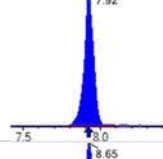
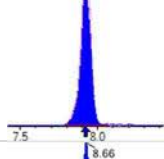
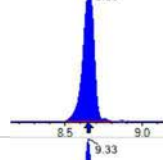
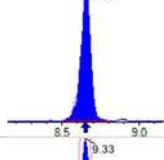
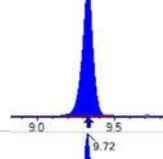
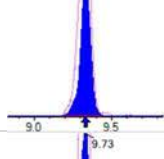
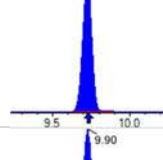
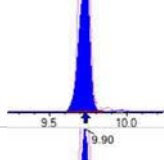
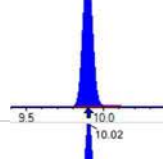
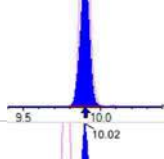
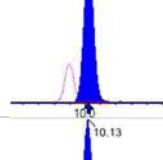
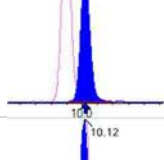
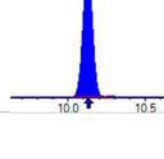
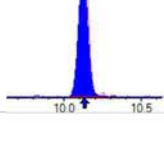
Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB03903-CCV1	PFBA	20.0	20.8	104	ng/mL	+/- 30.00%
	PFPEA	10.0	9.99	99.9	ng/mL	+/- 30.00%
	PFHXA	5.00	5.21	104	ng/mL	+/- 30.00%
	PFHPA	5.00	5.23	105	ng/mL	+/- 30.00%
	PFOA	5.00	5.19	104	ng/mL	+/- 30.00%
	PFNA	5.00	5.62	112	ng/mL	+/- 30.00%
	PFDA	5.00	5.63	113	ng/mL	+/- 30.00%
	PFUnA	5.00	5.13	103	ng/mL	+/- 30.00%
	PFDOA	5.00	5.27	105	ng/mL	+/- 30.00%
	PFTRDA	5.00	5.79	116	ng/mL	+/- 30.00%
	PFTEDA	5.00	4.68	93.6	ng/mL	+/- 30.00%
	PFBS	4.42	4.73	107	ng/mL	+/- 30.00%
	PFPEs	4.70	4.14	88.2	ng/mL	+/- 30.00%
	PFHXS	4.58	4.48	97.9	ng/mL	+/- 30.00%
	PFHPS	4.78	4.60	96.3	ng/mL	+/- 30.00%
	PFOS	4.65	4.02	86.4	ng/mL	+/- 30.00%
	PFNS	4.80	4.21	87.8	ng/mL	+/- 30.00%
	PFDS	4.82	4.81	99.8	ng/mL	+/- 30.00%
	PFDOS	4.85	5.05	104	ng/mL	+/- 30.00%
	4:2FTS	18.8	17.5	92.9	ng/mL	+/- 30.00%
	6:2FTS	19.0	21.2	111	ng/mL	+/- 30.00%
	8:2FTS	19.2	19.1	99.7	ng/mL	+/- 30.00%
	PFOSA	5.00	4.49	89.8	ng/mL	+/- 30.00%
	NMeFOSA	20.0	20.3	102	ng/mL	+/- 30.00%
	NEtFOSA	20.0	21.1	105	ng/mL	+/- 30.00%
	NMeFOSAA	5.00	5.31	106	ng/mL	+/- 30.00%
	NEtFOSAA	5.00	5.16	103	ng/mL	+/- 30.00%
	NMeFOSE	20.0	20.8	104	ng/mL	+/- 30.00%
	NEtFOSE	20.0	21.8	109	ng/mL	+/- 30.00%
	HFPO-DA	10.0	10.1	101	ng/mL	+/- 30.00%

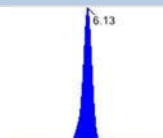
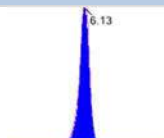
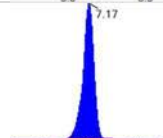
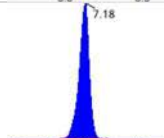
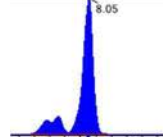
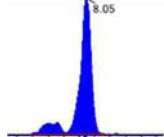
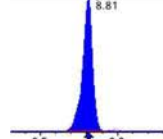
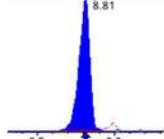
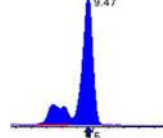
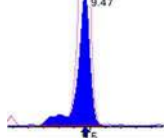
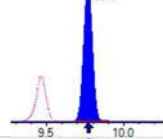
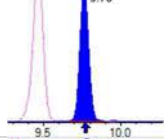
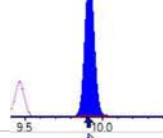
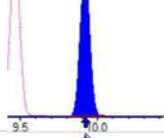
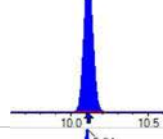
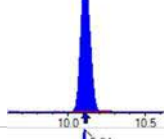
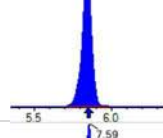
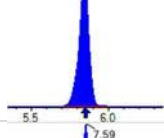
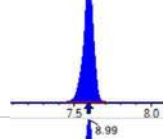
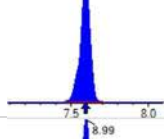
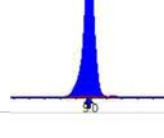
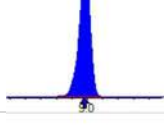
# INITIAL AND CONTINUING CALIBRATION CHECK

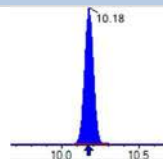
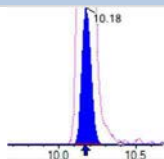
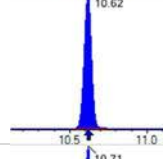
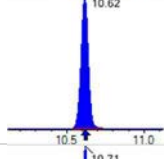
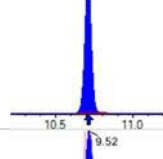
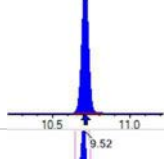
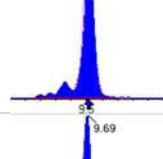
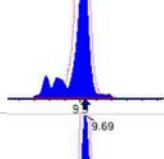
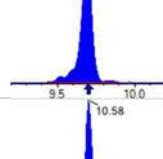
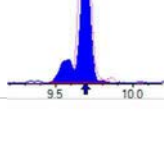
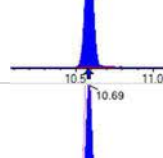
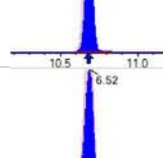
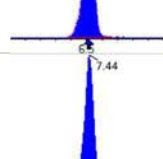
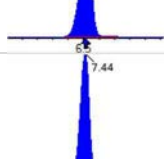
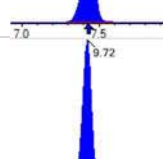
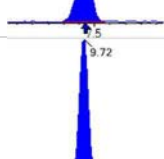
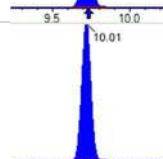
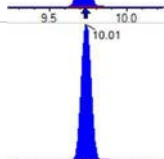

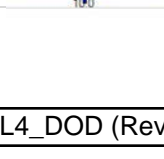
## EPA 1633

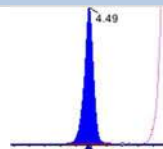
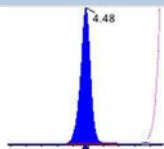
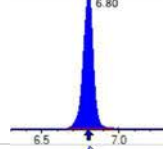
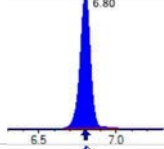
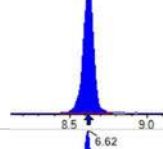
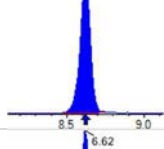
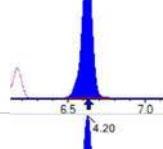
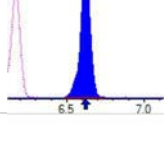
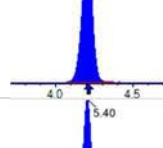
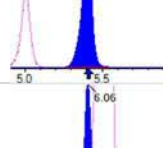
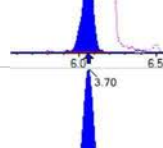
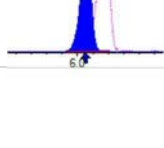
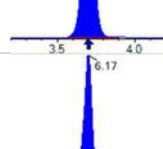
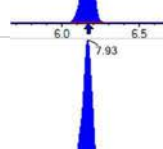
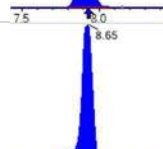

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Instrument ID:	Saphira	Calibration:	2251019
Standard ID:	22L0304	Sequence:	SB03903

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB03903-CCV1	ADONA	9.45	9.36	99.0	ng/mL	+/- 30.00%
	PFEESA	8.90	10.1	113	ng/mL	+/- 30.00%
	PFMPA	10.0	9.29	92.9	ng/mL	+/- 30.00%
	PFMBA	10.0	9.36	93.6	ng/mL	+/- 30.00%
	NFDHA	10.0	11.1	111	ng/mL	+/- 30.00%
	9CL-PF3ONS	9.35	8.46	90.5	ng/mL	+/- 30.00%
	11CL-PF3OUDS	9.45	9.25	97.9	ng/mL	+/- 30.00%
	3:3FTCA	20.0	18.0	90.2	ng/mL	+/- 30.00%
	5:3FTCA	20.0	22.7	113	ng/mL	+/- 30.00%
	7:3FTCA	20.0	21.4	107	ng/mL	+/- 30.00%

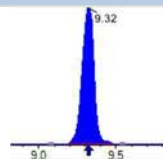
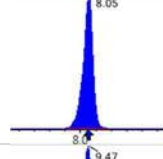
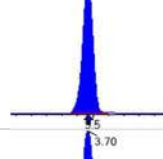
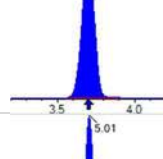
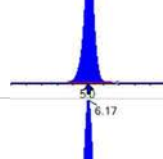
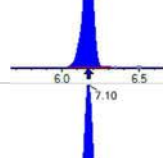
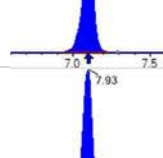
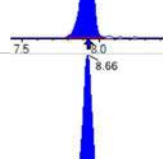
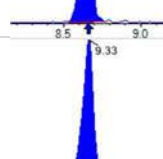
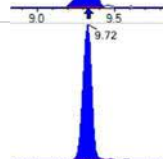
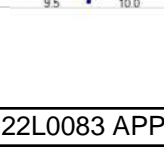
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 982450	(3.70, 1.00) (0.00, N/A, 0.0)	66.7	N/A 0.0 0.0	20.7956 [ 20.0000 ]	104.0%			
PFPeA	(262.9 / 219.0) 734523 (262.9 / 69.0) 8934	(5.01, 1.00) (0.00, N/A, 0.1)	683.9 201.8	0.0122 14251.4 100.0	9.9892 [ 10.0000 ]	99.9%			
PFHxA	(313.0 / 269.0) 563818 (313.0 / 119.0) 53564	(6.17, 1.00) (0.00, N/A, 0.1)	570.7 474.7	0.0950 96.8 100.0	5.2073 [ 5.0000 ]	104.1%			
PFHpA	(363.0 / 319.0) 521904 (363.0 / 169.0) 150708	(7.11, 1.00) (0.00, N/A, 0.1)	525.9 623.9	0.2888 92.4 100.0	5.2272 [ 5.0000 ]	104.5%			
PFOA	(413.0 / 369.0) 565015 (413.0 / 169.0) 184413	(7.92, 1.00) (0.00, N/A, 0.0)	638.4 569.0	0.3264 96.9 100.0	5.1902 [ 5.0000 ]	103.8%			
PFNA	(463.0 / 419.0) 389924 (463.0 / 169.0) 88902	(8.65, 1.00) (0.00, N/A, 0.0)	406.3 109.3	0.2280 113.6 100.0	5.6220 [ 5.0000 ]	112.4%			
PFDA	(513.0 / 469.0) 560685 (513.0 / 169.0) 52112	(9.33, 1.00) (0.00, N/A, -0.3)	387.2 691.6	0.0929 116.8 100.0	5.6260 [ 5.0000 ]	112.5%			
PFUnA	(563.0 / 519.0) 580060 (563.0 / 169.0) 66661	(9.72, 1.00) (0.00, N/A, -0.2)	610.5 240.2	0.1149 102.6 100.0	5.1322 [ 5.0000 ]	102.6%			
PFDoA	(613.0 / 569.0) 768398 (613.0 / 169.0) 102141	(9.90, 1.00) (0.00, N/A, -0.2)	577.5 590.6	0.1329 105.8 100.0	5.2660 [ 5.0000 ]	105.3%			
PFTrDA	(663.0 / 619.0) 697092 (663.0 / 169.0) 125580	(10.02, 1.01) (N/A, 0.00, 0.3)	723.6 368.0	0.1801 86.2 100.0	5.7890 [ 5.0000 ]	115.8%			
PFTeDA	(713.0 / 669.0) 504829 (713.0 / 169.0) 107258	(10.13, 1.00) (0.00, N/A, 0.2)	829.9 406.7	0.2125 93.6 100.0	4.6825 [ 5.0000 ]	93.6%			

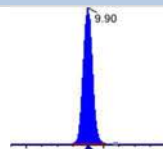
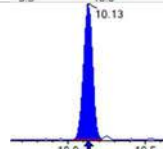
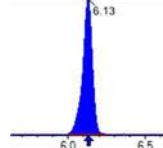
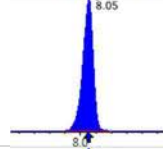
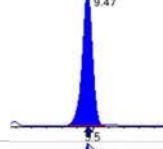
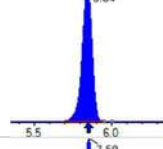
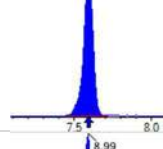
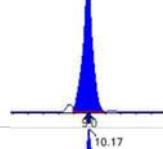
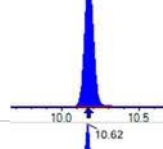
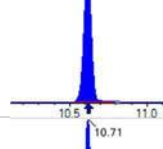
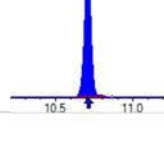
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 854996 (298.9 / 99.0) 560084	(6.13, 1.00) (0.00, N/A, 0.0)	648.3 942.9	0.6551 96.3 100.0	4.7307 [ 4.4237 ]	106.9%			
PFPeS	(349.0 / 80.0) 1335185 (349.0 / 99.0) 598653	(7.17, 0.89) (N/A, 0.00, -0.1)	661.8 740.2	0.4484 120.1 100.0	4.1434 [ 4.6919 ]	88.3%			
PFHxS	(399.0 / 80.0) 1224400 (399.0 / 99.0) 429904	(8.05, 1.00) (0.00, N/A, 0.2)	3058.4 78575.1	0.3511 102.4 100.0	4.4820 [ 4.5549 ]	98.4%			
PFHpS	(449.0 / 80.0) 1122449 (449.0 / 99.0) 303353	(8.81, 0.93) (N/A, 0.00, 0.0)	854.2 392.3	0.2703 92.1 100.0	4.6044 [ 4.7570 ]	96.8%			
PFOS	(499.0 / 80.0) 1214722 (499.0 / 99.0) 276006	(9.47, 1.00) (0.00, N/A, 0.1)	117.3 129.8	0.2272 99.4 100.0	4.0192 [ 4.6375 ]	86.7%			
PFNS	(549.0 / 80.0) 1464072 (549.0 / 99.0) 400843	(9.77, 1.03) (N/A, 0.00, 0.3)	903.3 487.5	0.2738 109.7 100.0	4.2128 [ 4.7994 ]	87.8%			
PFDS	(599.0 / 80.0) 2062867 (599.0 / 99.0) 445959	(9.92, 1.05) (N/A, 0.00, -0.1)	1001.1 1095.5	0.2162 84.8 100.0	4.8104 [ 4.8155 ]	99.9%			
PFDoS	(698.9 / 80.0) 1130442 (698.9 / 99.0) 256771	(10.11, 1.07) (N/A, 0.00, 0.0)	858.3 555.4	0.2271 110.6 100.0	5.0502 [ 4.8478 ]	104.2%			
4:2FTS	(327.0 / 307.0) 1173781 (327.0 / 81.0) 652041	(5.84, 1.00) (0.00, N/A, -0.1)	727.3 716.5	0.5555 111.1 100.0	17.4662 [ 18.6906 ]	93.4%			
6:2FTS	(427.0 / 407.0) 727085 (427.0 / 81.0) 480798	(7.59, 1.00) (0.00, N/A, 0.1)	824.2 885.7	0.6613 92.3 100.0	21.1813 [ 18.9808 ]	111.6%			
8:2FTS	(527.0 / 507.0) 617184 (527.0 / 81.0) 365940	(8.99, 1.00) (0.00, N/A, 0.0)	441.6 643.7	0.5929 84.3 100.0	19.1397 [ 19.1658 ]	99.9%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 1864403 (498.0 / 478.0) 37708	(10.18, 1.00) (0.00, N/A, -0.1)	1000.6 204.4	0.0202 85.6 100.0	4.4923 [ 5.0000 ]	89.8%			
NMeFOSA	(511.9 / 219.0) 1653848 (511.9 / 169.0) 1163525	(10.62, 1.00) (0.00, N/A, 0.1)	1172.9 1186.1	0.7035 100.9 100.0	20.3383 [ 20.0000 ]	101.7%			
NEIFOSA	(526.0 / 219.0) 1777342 (526.0 / 169.0) 1878083	(10.71, 1.00) (0.00, N/A, 0.0)	1401.5 1256.6	1.0567 93.8 100.0	21.0986 [ 20.0000 ]	105.5%			
NMeFOSAA	(570.0 / 419.0) 226799 (570.0 / 483.0) 103012	(9.52, 1.00) (0.01, N/A, -0.1)	400.2 691.6	0.4542 96.7 100.0	5.3126 [ 5.0000 ]	106.3%			
NEIFOSAA	(584.0 / 419.0) 260151 (584.0 / 526.0) 133729	(9.69, 1.00) (0.00, N/A, 0.1)	581.8 786.7	0.5140 66.7 100.0	5.1586 [ 5.0000 ]	103.2%			
NMeFOSE	(616.1 / 59.0) 453948	(10.58, 1.00) (0.01, N/A, 0.0)	855.6	N/A 0.0 0.0	20.8351 [ 20.0000 ]	104.2%			
NEtFOSE	(630.0 / 59.0) 138227	(10.69, 1.00) (0.01, N/A, 0.0)	1171.7	N/A 0.0 0.0	21.8135 [ 20.0000 ]	109.1%			
HFPO-DA	(285.0 / 169.0) 505688 (285.0 / 185.0) 1412912	(6.52, 1.00) (0.00, N/A, 0.0)	677.8 596.2	2.7940 109.5 100.0	10.1242 [ 10.0000 ]	101.2%			
ADONA	(377.0 / 85.0) 1937357 (377.0 / 251.0) 228853	(7.44, 1.14) (N/A, 0.00, -0.1)	660.2 445.4	0.1181 94.2 100.0	9.3564 [ 9.4270 ]	99.3%			
9CI-Pf3ONS	(531.0 / 351.0) 4968543 (533.0 / 353.0) 1472100	(9.72, 1.49) (N/A, 0.00, 0.1)	819.5 919.7	0.2963 93.5 100.0	8.4615 [ 9.3325 ]	90.7%			
11CI-PF3OUDS	(631.0 / 451.0) 3580794 (633.0 / 453.0) 1150706	(10.01, 1.54) (N/A, 0.00, 0.1)	703.9 676.8	0.3214 109.8 100.0	9.2545 [ 9.4321 ]	98.1%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 56871 (241.0 / 117.0) 99066	(4.49, 0.90) (N/A, 0.00, 0.2)	716.1 637.0	1.7419 0.1 100.0	18.0326 [ 20.0000 ]	90.2%			IR1,
5:3FTCA	(341.0 / 236.7) 499499 (341.0 / 217.0) 791973	(6.80, 1.10) (N/A, 0.00, 0.0)	663.3 658.2	1.5855 100.4 100.0	22.6557 [ 20.0000 ]	113.3%			
7:3FTCA	(441.0 / 317.0) 531430 (441.0 / 337.0) 458631	(8.62, 1.40) (N/A, 0.00, 0.0)	438.5 482.1	0.8630 106.1 100.0	21.3585 [ 20.0000 ]	106.8%			
PFEESA	(315.0 / 135.0) 1122172 (315.0 / 83.0) 298767	(6.62, 1.07) (N/A, 0.00, 0.1)	767.2 761.2	0.2662 94.2 100.0	10.0923 [ 8.9246 ]	113.1%			
PFMPA	(229.0 / 85.0) 184417	(4.20, 0.84) (N/A, 0.00, 0.0)	970.6	N/A 0.0 0.0	9.2920 [ 10.0000 ]	92.9%			
PFMBA	(279.0 / 85.0) 606408	(5.40, 1.08) (N/A, 0.00, 0.0)	848.3	N/A 0.0 0.0	9.3598 [ 10.0000 ]	93.6%			
NFDHA	(201.0 / 85.0) 23985 (295.0 / 201.0) 162317	(6.06, 0.98) (N/A, 0.00, 0.1)	327.2 599.0	6.7675 0.9 100.0	11.1295 [ 10.0000 ]	111.3%			IR1,
13C3_PFBa_IIS	(216.0 / 172.0) 71806	(3.70, N/A) (N/A, 0.00, N/A)	734.1	N/A	0.8213 [ 1.0000 ]	82.1% { 100.0% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 116838	(6.17, N/A) (N/A, 0.00, N/A)	566.7	N/A	0.8880 [ 1.0000 ]	88.8% { 100.0% }			
13C4_PFOA_IIS	(417.0 / 372.0) 100889	(7.93, N/A) (N/A, 0.00, N/A)	616.1	N/A	0.8060 [ 1.0000 ]	80.6% { 100.0% }			
13C5_PFNA_IIS	(468.0 / 423.0) 97123	(8.65, N/A) (N/A, 0.00, N/A)	277.1	N/A	0.9730 [ 1.0000 ]	97.3% { 100.0% }			



Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 68484	(9.32, N/A) (N/A, 0.00, N/A)	231.3	N/A	0.6604 [ 1.0000 ]	66.0% { 100.0% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 211082	(8.05, N/A) (N/A, 0.00, N/A)	876.7	N/A	0.8922 [ 1.0000 ]	89.2% { 100.0% }			
13C4_PFOS_IIS	(502.8 / 79.9) 159111	(9.47, N/A) (N/A, 0.00, N/A)	386.1	N/A	0.7931 [ 1.0000 ]	79.3% { 100.0% }			
13C4_PFBA_EIS	(217.0 / 172.0) 569048	(3.70, N/A) (N/A, 0.00, N/A)	748.1	N/A	7.6545 [ 8.0000 ]	95.7% { 100.0% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 324874	(5.01, N/A) (N/A, 0.00, N/A)	760.0	N/A	3.7768 [ 4.0000 ]	94.4% { 100.0% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 238684	(6.17, N/A) (N/A, 0.00, N/A)	614.9	N/A	1.7354 [ 2.0000 ]	86.8% { 100.0% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 221144	(7.10, N/A) (N/A, 0.00, N/A)	495.4	N/A	1.8199 [ 2.0000 ]	91.0% { 100.0% }			
13C8_PFOA_EIS	(421.0 / 376.0) 229716	(7.93, N/A) (N/A, 0.00, N/A)	437.0	N/A	2.0606 [ 2.0000 ]	103.0% { 100.0% }			
13C9_PFNA_EIS	(472.0 / 427.0) 82079	(8.66, N/A) (N/A, 0.00, N/A)	254.5	N/A	0.7737 [ 1.0000 ]	77.4% { 100.0% }			
13C6_PFDA_EIS	(519.0 / 474.0) 108096	(9.33, N/A) (N/A, 0.00, N/A)	341.1	N/A	1.1649 [ 1.0000 ]	116.5% { 100.0% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 151653	(9.72, N/A) (N/A, 0.00, N/A)	238.2	N/A	1.1350 [ 1.0000 ]	113.5% { 100.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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) 182162	(9.90, N/A) (N/A, 0.00, N/A)	342.6	N/A	1.2089 [ 1.0000 ]	120.9% { 100.0% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 112651	(10.13, N/A) (N/A, 0.00, N/A)	312.1	N/A	1.2300 [ 1.0000 ]	123.0% { 100.0% }			
13C3_PFBs_EIS	(302.0 / 80.0) 661734	(6.13, N/A) (N/A, 0.00, N/A)	729.3	N/A	1.9195 [ 2.0000 ]	96.0% { 100.0% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 343547	(8.05, N/A) (N/A, 0.00, N/A)	738.8	N/A	1.9216 [ 2.0000 ]	96.1% { 100.0% }			
13C8_PFOS_EIS	(507.0 / 80.0) 549953	(9.47, N/A) (N/A, 0.00, N/A)	298.1	N/A	2.1041 [ 2.0000 ]	105.2% { 100.0% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 84290	(5.84, N/A) (N/A, 0.00, N/A)	700.2	N/A	4.3361 [ 4.0000 ]	108.4% { 100.0% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 88928	(7.59, N/A) (N/A, 0.00, N/A)	508.3	N/A	3.5698 [ 4.0000 ]	89.2% { 100.0% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 87999	(8.99, N/A) (N/A, 0.00, N/A)	267.2	N/A	3.9402 [ 4.0000 ]	98.5% { 100.0% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 833933	(10.17, N/A) (N/A, 0.00, N/A)	945.0	N/A	2.1924 [ 2.0000 ]	109.6% { 100.0% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 203841	(10.62, N/A) (N/A, 0.00, N/A)	670.3	N/A	2.1511 [ 2.0000 ]	107.6% { 100.0% }			
D5_NEtFOSA_EIS	(531.1 / 169.0) 184756	(10.71, N/A) (N/A, 0.00, N/A)	1008.8	N/A	2.0879 [ 2.0000 ]	104.4% { 100.0% }			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03903-CCV1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (3)  
 Acquired: 2022/12/20 - 10:05

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 235621	(9.51, N/A) (N/A, 0.00, N/A)	433.7	N/A	3.8431 [ 4.0000 ]	96.1% { 100.0% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 223781	(9.69, N/A) (N/A, 0.00, N/A)	245.4	N/A	4.3918 [ 4.0000 ]	109.8% { 100.0% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 342212	(10.58, N/A) (N/A, 0.00, N/A)	628.2	N/A	18.7736 [ 20.0000 ]	93.9% { 100.0% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 198534	(10.68, N/A) (N/A, 0.00, N/A)	1183.4	N/A	20.2258 [ 20.0000 ]	101.1% { 100.0% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 653957	(6.51, N/A) (N/A, 0.00, N/A)	996.4	N/A	7.8091 [ 8.0000 ]	97.6% { 100.0% }			

# INITIAL AND CONTINUING CALIBRATION CHECK

## EPA 1633

Laboratory: APPL, LLC  
 Client: AECOM  
 Instrument ID: Saphira  
 Standard ID: 22L0304

Work Order: 22L0083  
 Project: Red Hill AFFF Assessment Sampling  
 Calibration: 2251019  
 Sequence: SB03903

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB03903-CCV2	PFBA	20.0	20.5	103	ng/mL	+/- 30.00%
	PFPEA	10.0	9.71	97.1	ng/mL	+/- 30.00%
	PFHXA	5.00	4.61	92.3	ng/mL	+/- 30.00%
	PFHPA	5.00	4.93	98.7	ng/mL	+/- 30.00%
	PFOA	5.00	5.15	103	ng/mL	+/- 30.00%
	PFNA	5.00	5.13	103	ng/mL	+/- 30.00%
	PFDA	5.00	4.96	99.1	ng/mL	+/- 30.00%
	PFUnA	5.00	6.16	123	ng/mL	+/- 30.00%
	PFDOA	5.00	5.50	110	ng/mL	+/- 30.00%
	PFTRDA	5.00	5.07	101	ng/mL	+/- 30.00%
	PFTEDA	5.00	5.17	103	ng/mL	+/- 30.00%
	PFBS	4.42	4.43	100	ng/mL	+/- 30.00%
	PFPEs	4.70	4.35	92.5	ng/mL	+/- 30.00%
	PFHXS	4.58	4.41	96.4	ng/mL	+/- 30.00%
	PFHPS	4.78	4.33	90.6	ng/mL	+/- 30.00%
	PFOS	4.65	4.34	93.4	ng/mL	+/- 30.00%
	PFNS	4.80	4.93	103	ng/mL	+/- 30.00%
	PFDS	4.82	5.08	105	ng/mL	+/- 30.00%
	PFDOS	4.85	4.54	93.6	ng/mL	+/- 30.00%
	4:2FTS	18.8	20.3	108	ng/mL	+/- 30.00%
	6:2FTS	19.0	21.8	115	ng/mL	+/- 30.00%
	8:2FTS	19.2	23.7	123	ng/mL	+/- 30.00%
	PFOSA	5.00	5.73	115	ng/mL	+/- 30.00%
	NMeFOSA	20.0	20.5	103	ng/mL	+/- 30.00%
	NEtFOSA	20.0	18.5	92.4	ng/mL	+/- 30.00%
	NMeFOSAA	5.00	5.35	107	ng/mL	+/- 30.00%
	NEtFOSAA	5.00	4.40	88.1	ng/mL	+/- 30.00%
	NMeFOSE	20.0	19.5	97.3	ng/mL	+/- 30.00%
	NEtFOSE	20.0	21.1	105	ng/mL	+/- 30.00%
	HFPO-DA	10.0	9.98	99.8	ng/mL	+/- 30.00%

# INITIAL AND CONTINUING CALIBRATION CHECK

## EPA 1633

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Instrument ID:	Saphira	Calibration:	2251019
Standard ID:	22L0304	Sequence:	SB03903

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB03903-CCV2	ADONA	9.45	9.63	102	ng/mL	+/- 30.00%
	PFEESA	8.90	8.34	93.7	ng/mL	+/- 30.00%
	PFMPA	10.0	8.89	88.9	ng/mL	+/- 30.00%
	PFMBA	10.0	10.3	103	ng/mL	+/- 30.00%
	NFDHA	10.0	7.59	75.9	ng/mL	+/- 30.00%
	9CL-PF3ONS	9.35	9.34	99.9	ng/mL	+/- 30.00%
	11CL-PF3OUDS	9.45	9.63	102	ng/mL	+/- 30.00%
	3:3FTCA	20.0	19.5	97.4	ng/mL	+/- 30.00%
	5:3FTCA	20.0	18.4	92.1	ng/mL	+/- 30.00%
	7:3FTCA	20.0	18.1	90.4	ng/mL	+/- 30.00%

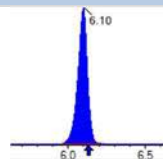
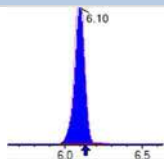
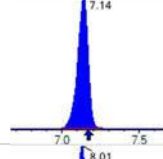
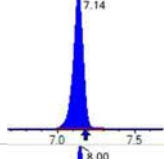
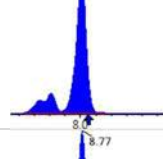
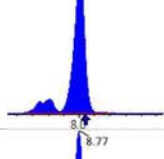
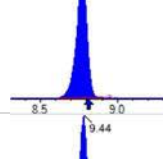
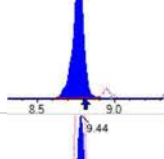
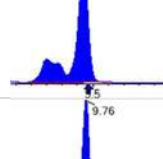
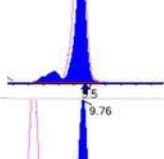
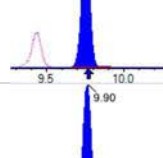
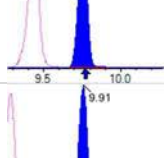
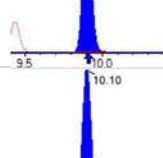
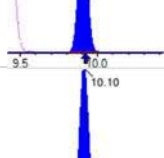
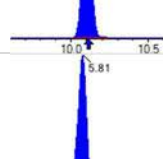
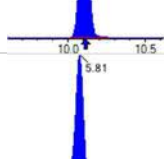
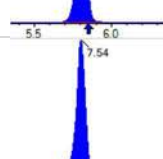
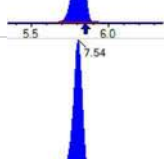
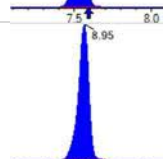
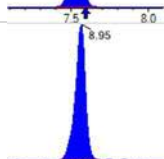

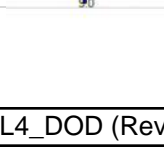


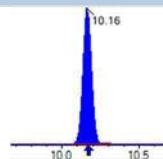
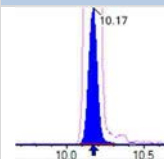
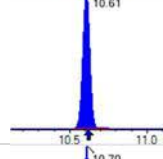
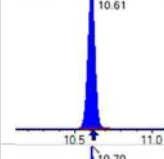
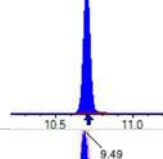
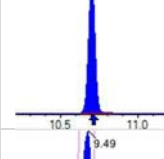
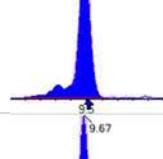
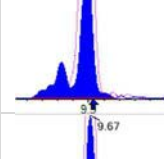
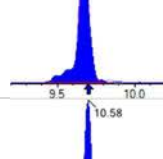
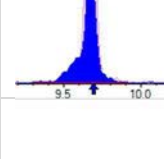
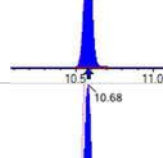
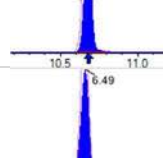
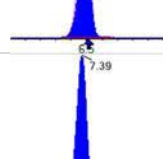
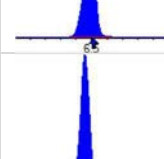
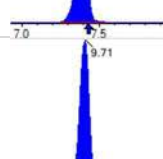
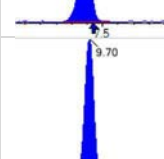
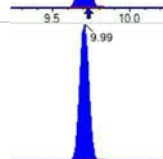
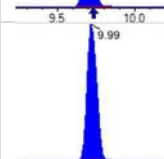

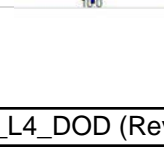
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03903-CCV2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

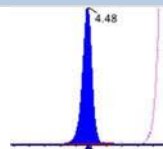
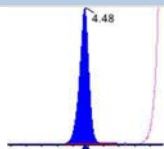
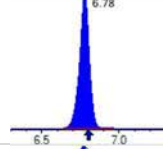
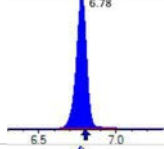
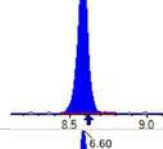
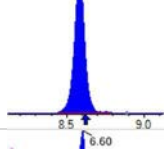
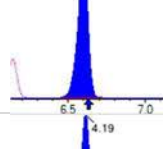
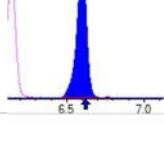
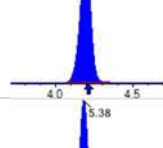
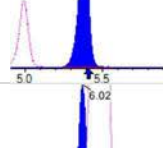
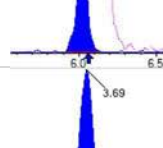
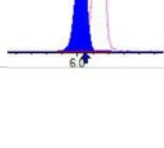
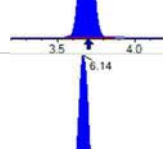
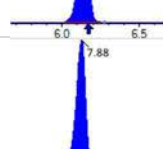
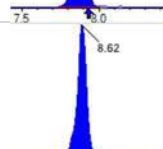

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 Path: S2022-12-20A (22)  
 Acquired: 2022/12/20 - 14:32

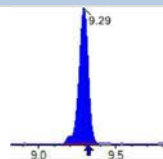
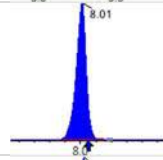
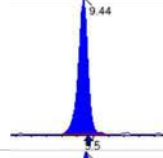
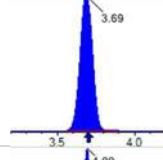
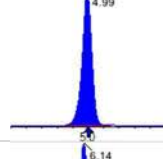
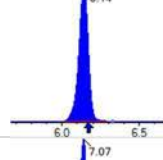
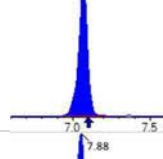
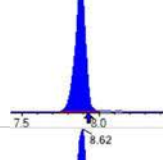
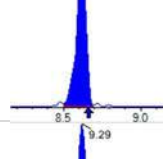
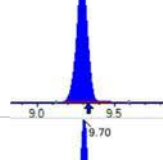
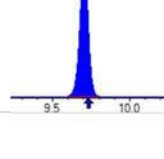
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 998344	(3.69, 1.00) (0.00, N/A, 0.0)	67.7	N/A 0.0 0.0	20.5317 [ 20.0000 ]	102.7%			
PFPeA	(262.9 / 219.0) 731072 (262.9 / 69.0) 9433	(4.99, 1.00) (0.00, N/A, 0.1)	682.3 234.4	0.0129 15118.0 106.1	9.7137 [ 10.0000 ]	97.1%			
PFHxA	(313.0 / 269.0) 592384 (313.0 / 119.0) 57682	(6.14, 1.00) (0.00, N/A, 0.0)	650.0 363.6	0.0974 99.3 102.5	4.6144 [ 5.0000 ]	92.3%			
PFHpA	(363.0 / 319.0) 530440 (363.0 / 169.0) 159335	(7.07, 1.00) (0.00, N/A, -0.2)	797.5 727.1	0.3004 96.1 104.0	4.9342 [ 5.0000 ]	98.7%			
PFOA	(413.0 / 369.0) 575476 (413.0 / 169.0) 177292	(7.88, 1.00) (0.00, N/A, -0.1)	764.4 464.3	0.3081 91.5 94.4	5.1483 [ 5.0000 ]	103.0%			
PFNA	(463.0 / 419.0) 368774 (463.0 / 169.0) 84633	(8.62, 1.00) (0.00, N/A, 0.3)	409.6 88.9	0.2295 114.4 100.7	5.1259 [ 5.0000 ]	102.5%			
PFDA	(513.0 / 469.0) 559869 (513.0 / 169.0) 52442	(9.30, 1.00) (0.01, N/A, 0.2)	446.0 468.8	0.0937 117.7 100.8	4.9567 [ 5.0000 ]	99.1%			
PFUnA	(563.0 / 519.0) 699517 (563.0 / 169.0) 72604	(9.71, 1.00) (0.00, N/A, 0.0)	645.8 363.6	0.1038 92.7 90.3	6.1576 [ 5.0000 ]	123.2%			
PFDoA	(613.0 / 569.0) 842147 (613.0 / 169.0) 105691	(9.88, 1.00) (0.00, N/A, 0.3)	586.6 606.7	0.1255 99.9 94.4	5.5006 [ 5.0000 ]	110.0%			
PFTrDA	(663.0 / 619.0) 640319 (663.0 / 169.0) 136232	(10.01, 1.01) (N/A, -0.01, 0.2)	514.5 511.3	0.2128 101.8 118.1	5.0679 [ 5.0000 ]	101.4%			
PFTeDA	(713.0 / 669.0) 515728 (713.0 / 169.0) 123756	(10.12, 1.00) (0.00, N/A, 0.3)	768.4 18193710.9	0.2400 105.7 112.9	5.1693 [ 5.0000 ]	103.4%			

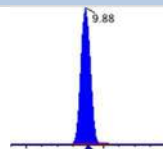
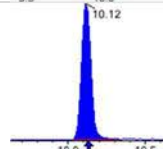
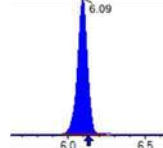
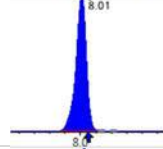
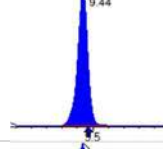
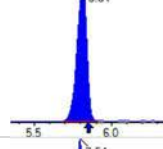
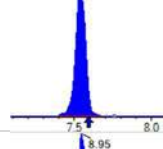
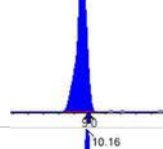
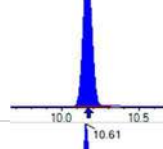
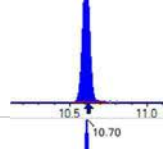
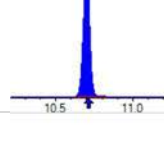
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 819308 (298.9 / 99.0) 530900	(6.10, 1.00) (0.00, N/A, 0.0)	827.6 738.8	0.6480 95.3 98.9	4.4281 [ 4.4237 ]	100.1%			
PFPeS	(349.0 / 80.0) 1421471 (349.0 / 99.0) 550818	(7.14, 0.89) (N/A, -0.04, 0.1)	786.0 547.1	0.3875 103.8 86.4	4.3464 [ 4.6919 ]	92.6%			
PFHxS	(399.0 / 80.0) 1223539 (399.0 / 99.0) 433260	(8.01, 1.00) (0.00, N/A, 0.1)	5938.8 726158.5	0.3541 103.3 100.9	4.4131 [ 4.5549 ]	96.9%			
PFHpS	(449.0 / 80.0) 1050456 (449.0 / 99.0) 300495	(8.77, 0.93) (N/A, -0.04, 0.1)	729.2 501.5	0.2861 97.5 105.8	4.3295 [ 4.7570 ]	91.0%			
PFOS	(499.0 / 80.0) 1306163 (499.0 / 99.0) 315967	(9.44, 1.00) (0.00, N/A, -0.2)	105.3 136.3	0.2419 105.8 106.5	4.3423 [ 4.6375 ]	93.6%			
PFNS	(549.0 / 80.0) 1705929 (549.0 / 99.0) 418686	(9.76, 1.03) (N/A, -0.01, 0.0)	641.8 884.5	0.2454 98.3 89.6	4.9321 [ 4.7994 ]	102.8%			
PFDS	(599.0 / 80.0) 2168184 (599.0 / 99.0) 522388	(9.90, 1.05) (N/A, -0.01, -0.2)	1052.3 978.0	0.2409 94.5 111.4	5.0800 [ 4.8155 ]	105.5%			
PFDoS	(698.9 / 80.0) 1011014 (698.9 / 99.0) 270333	(10.10, 1.07) (N/A, -0.01, -0.1)	749.2 492.0	0.2674 130.1 117.7	4.5381 [ 4.8478 ]	93.6%			
4:2FTS	(327.0 / 307.0) 1288094 (327.0 / 81.0) 686222	(5.81, 1.00) (0.00, N/A, 0.0)	1038.3 652.7	0.5327 106.6 95.9	20.2573 [ 18.6906 ]	108.4%			
6:2FTS	(427.0 / 407.0) 799946 (427.0 / 81.0) 518494	(7.54, 1.00) (0.00, N/A, 0.0)	901.7 728.7	0.6482 90.5 98.0	21.7633 [ 18.9808 ]	114.7%			
8:2FTS	(527.0 / 507.0) 674183 (527.0 / 81.0) 414931	(8.95, 1.00) (0.00, N/A, 0.1)	572.0 479.4	0.6155 87.5 103.8	23.6586 [ 19.1658 ]	123.4%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 2171214 (498.0 / 478.0) 52896	(10.16, 1.00) (0.00, N/A, -0.3)	823.7 539.1	0.0244 103.1 120.5	5.7341 [ 5.0000 ]	114.7%			
NMeFOSA	(511.9 / 219.0) 1835193 (511.9 / 169.0) 1240736	(10.61, 1.00) (0.00, N/A, 0.0)	1233.3 1144.8	0.6761 97.0 96.1	20.5463 [ 20.0000 ]	102.7%			
NEIFOSA	(526.0 / 219.0) 1826388 (526.0 / 169.0) 2059815	(10.70, 1.00) (0.00, N/A, 0.0)	1382.4 1598.1	1.1278 100.1 106.7	18.4794 [ 20.0000 ]	92.4%			
NMeFOSAA	(570.0 / 419.0) 256938 (570.0 / 483.0) 120096	(9.49, 1.00) (0.00, N/A, -0.2)	359.5 226.3	0.4674 99.5 102.9	5.3471 [ 5.0000 ]	106.9%			
NEIFOSAA	(584.0 / 419.0) 236737 (584.0 / 526.0) 153002	(9.67, 1.00) (0.00, N/A, 0.0)	598.7 1321.9	0.6463 83.9 125.7	4.4035 [ 5.0000 ]	88.1%			
NMeFOSE	(616.1 / 59.0) 538867	(10.58, 1.00) (0.00, N/A, 0.0)	883.7	N/A 0.0 0.0	19.4575 [ 20.0000 ]	97.3%			
NEtFOSE	(630.0 / 59.0) 143511	(10.68, 1.00) (0.01, N/A, 0.0)	1147.3	N/A 0.0 0.0	21.0669 [ 20.0000 ]	105.3%			
HFPO-DA	(285.0 / 169.0) 513193 (285.0 / 185.0) 1452203	(6.49, 1.00) (0.00, N/A, 0.0)	592.8 659.1	2.8297 110.9 101.3	9.9820 [ 10.0000 ]	99.8%			
ADONA	(377.0 / 85.0) 2051922 (377.0 / 251.0) 270470	(7.39, 1.14) (N/A, -0.05, 0.1)	925.2 542.8	0.1318 105.1 111.6	9.6276 [ 9.4270 ]	102.1%			
9CI-Pf3ONS	(531.0 / 351.0) 5643710 (533.0 / 353.0) 1753958	(9.71, 1.50) (N/A, -0.02, 0.1)	466.6 948.5	0.3108 98.1 104.9	9.3377 [ 9.3325 ]	100.1%			
11CI-PF3OUDS	(631.0 / 451.0) 3835152 (633.0 / 453.0) 1140349	(9.99, 1.54) (N/A, -0.01, 0.2)	778.1 1129.4	0.2973 101.6 92.5	9.6297 [ 9.4321 ]	102.1%			



Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 62905 (241.0 / 117.0) 107304	(4.48, 0.90) (N/A, -0.01, 0.0)	699.8 535.6	1.7058 0.1 97.9	19.4872 [ 20.0000 ]	97.4%			IR1,
5:3FTCA	(341.0 / 236.7) 481720 (341.0 / 217.0) 839386	(6.78, 1.10) (N/A, -0.02, 0.0)	621.7 476.4	1.7425 110.3 109.9	18.4278 [ 20.0000 ]	92.1%			
7:3FTCA	(441.0 / 317.0) 533400 (441.0 / 337.0) 436380	(8.59, 1.40) (N/A, -0.04, 0.1)	409.6 435.3	0.8181 100.6 94.8	18.0806 [ 20.0000 ]	90.4%			
PFEESA	(315.0 / 135.0) 1099422 (315.0 / 83.0) 333939	(6.60, 1.07) (N/A, -0.03, -0.1)	747.4 762.2	0.3037 107.5 114.1	8.3393 [ 8.9246 ]	93.4%			
PFMPA	(229.0 / 85.0) 180689	(4.19, 0.84) (N/A, -0.01, 0.0)	1051.1	N/A 0.0 0.0	8.8948 [ 10.0000 ]	88.9%			
PFMBA	(279.0 / 85.0) 684233	(5.38, 1.08) (N/A, -0.02, 0.0)	838.9	N/A 0.0 0.0	10.3181 [ 10.0000 ]	103.2%			
NFDHA	(201.0 / 85.0) 19498 (295.0 / 201.0) 166586	(6.02, 0.98) (N/A, -0.03, -0.1)	306.2 626.9	8.5435 1.1 126.2	7.5944 [ 10.0000 ]	75.9%			IR1,
13C3_PFBa_IIS	(216.0 / 172.0) 72760	(3.69, N/A) (N/A, -0.01, N/A)	632.5	N/A	0.8322 [ 1.0000 ]	83.2% { 101.3% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 120643	(6.14, N/A) (N/A, -0.03, N/A)	846.9	N/A	0.9169 [ 1.0000 ]	91.7% { 103.3% }			
13C4_PFOA_IIS	(417.0 / 372.0) 111829	(7.88, N/A) (N/A, -0.04, N/A)	459.5	N/A	0.8934 [ 1.0000 ]	89.3% { 110.8% }			
13C5_PFNA_IIS	(468.0 / 423.0) 84833	(8.62, N/A) (N/A, -0.03, N/A)	332.7	N/A	0.8499 [ 1.0000 ]	85.0% { 87.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 93898	(9.29, N/A) (N/A, -0.03, N/A)	418.2	N/A	0.9054 [ 1.0000 ]	90.5% { 137.1% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 197877	(8.01, N/A) (N/A, -0.05, N/A)	559.1	N/A	0.8364 [ 1.0000 ]	83.6% { 93.7% }			
13C4_PFOS_IIS	(502.8 / 79.9) 166905	(9.44, N/A) (N/A, -0.03, N/A)	296.4	N/A	0.8319 [ 1.0000 ]	83.2% { 104.9% }			
13C4_PFBA_EIS	(217.0 / 172.0) 585688	(3.69, N/A) (N/A, -0.01, N/A)	807.5	N/A	7.7750 [ 8.0000 ]	97.2% { 102.9% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 332521	(4.99, N/A) (N/A, -0.01, N/A)	619.9	N/A	3.7438 [ 4.0000 ]	93.6% { 102.4% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 283000	(6.14, N/A) (N/A, -0.03, N/A)	609.1	N/A	1.9927 [ 2.0000 ]	99.6% { 118.6% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 238105	(7.07, N/A) (N/A, -0.03, N/A)	488.7	N/A	1.8976 [ 2.0000 ]	94.9% { 107.7% }			
13C8_PFOA_EIS	(421.0 / 376.0) 235870	(7.88, N/A) (N/A, -0.04, N/A)	505.0	N/A	1.9088 [ 2.0000 ]	95.4% { 102.7% }			
13C9_PFNA_EIS	(472.0 / 427.0) 85140	(8.62, N/A) (N/A, -0.04, N/A)	201.8	N/A	0.9188 [ 1.0000 ]	91.9% { 103.7% }			
13C6_PFDA_EIS	(519.0 / 474.0) 122514	(9.29, N/A) (N/A, -0.04, N/A)	343.1	N/A	0.9629 [ 1.0000 ]	96.3% { 113.3% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 152429	(9.70, N/A) (N/A, -0.02, N/A)	461.3	N/A	0.8320 [ 1.0000 ]	83.2% { 100.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 191133	(9.88, N/A) (N/A, -0.01, N/A)	1176.5	N/A	0.9251 [ 1.0000 ]	92.5% { 104.9% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 104245	(10.12, N/A) (N/A, -0.01, N/A)	253.1	N/A	0.8302 [ 1.0000 ]	83.0% { 92.5% }			
13C3_PFBs_EIS	(302.0 / 80.0) 677453	(6.09, N/A) (N/A, -0.03, N/A)	729.0	N/A	2.0963 [ 2.0000 ]	104.8% { 102.4% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 348663	(8.01, N/A) (N/A, -0.04, N/A)	560.2	N/A	2.0804 [ 2.0000 ]	104.0% { 101.5% }			
13C8_PFOS_EIS	(507.0 / 80.0) 547357	(9.44, N/A) (N/A, -0.03, N/A)	274.3	N/A	1.9964 [ 2.0000 ]	99.8% { 99.5% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 79754	(5.81, N/A) (N/A, -0.03, N/A)	440.0	N/A	4.3766 [ 4.0000 ]	109.4% { 94.6% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 95223	(7.54, N/A) (N/A, -0.05, N/A)	582.6	N/A	4.0775 [ 4.0000 ]	101.9% { 107.1% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 77766	(8.95, N/A) (N/A, -0.04, N/A)	397.3	N/A	3.7144 [ 4.0000 ]	92.9% { 88.4% }			
13C8_PFOA_EIS	(506.0 / 78.0) 760848	(10.16, N/A) (N/A, -0.01, N/A)	773.8	N/A	1.9068 [ 2.0000 ]	95.3% { 91.2% }			
D3_NMeFOA_EIS	(515.0 / 169.0) 223903	(10.61, N/A) (N/A, -0.01, N/A)	782.6	N/A	2.2524 [ 2.0000 ]	112.6% { 109.8% }			
D5_NEtFOA_EIS	(531.1 / 169.0) 216763	(10.70, N/A) (N/A, -0.01, N/A)	1162.2	N/A	2.3352 [ 2.0000 ]	116.8% { 117.3% }			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03903-CCV2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (22)  
 Acquired: 2022/12/20 - 14:32

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 265211	(9.49, N/A) (N/A, -0.02, N/A)	352.3	N/A	4.1237 [ 4.0000 ]	103.1% { 112.6% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 238560	(9.67, N/A) (N/A, -0.02, N/A)	364.4	N/A	4.4632 [ 4.0000 ]	111.6% { 106.6% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 434990	(10.57, N/A) (N/A, -0.01, N/A)	903.8	N/A	22.7491 [ 20.0000 ]	113.7% { 127.1% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 213429	(10.67, N/A) (N/A, -0.01, N/A)	1040.1	N/A	20.7279 [ 20.0000 ]	103.6% { 107.5% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 673120	(6.49, N/A) (N/A, -0.03, N/A)	583.3	N/A	7.7845 [ 8.0000 ]	97.3% { 102.9% }			

# INITIAL AND CONTINUING CALIBRATION CHECK

## EPA 1633

Laboratory: APPL, LLC  
 Client: AECOM  
 Instrument ID: Saphira  
 Standard ID: 22L0304

Work Order: 22L0083  
 Project: Red Hill AFFF Assessment Sampling  
 Calibration: 2251019  
 Sequence: SB03903

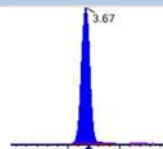
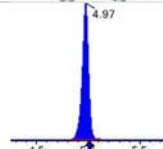
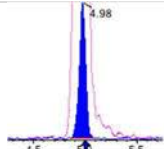
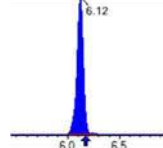
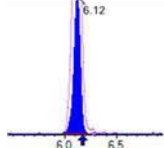
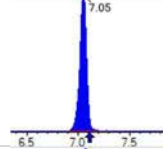
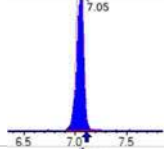
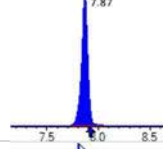
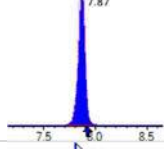
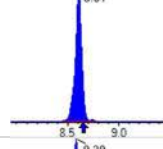
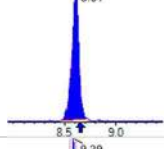
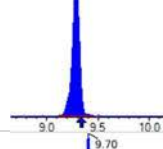
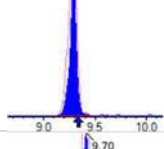
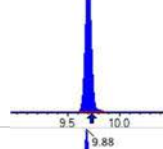
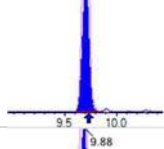
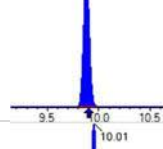
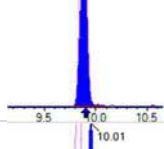
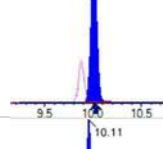
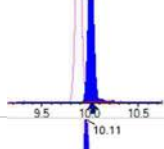
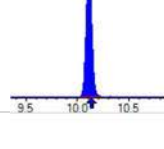
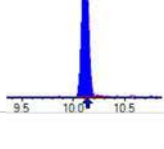
Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB03903-CCV3	PFBA	20.0	20.8	104	ng/mL	+/- 30.00%
	PFPEA	10.0	9.27	92.7	ng/mL	+/- 30.00%
	PFHXA	5.00	4.83	96.6	ng/mL	+/- 30.00%
	PFHPA	5.00	5.04	101	ng/mL	+/- 30.00%
	PFOA	5.00	5.11	102	ng/mL	+/- 30.00%
	PFNA	5.00	5.20	104	ng/mL	+/- 30.00%
	PFDA	5.00	5.50	110	ng/mL	+/- 30.00%
	PFUnA	5.00	5.03	101	ng/mL	+/- 30.00%
	PFDOA	5.00	5.39	108	ng/mL	+/- 30.00%
	PFTRDA	5.00	5.44	109	ng/mL	+/- 30.00%
	PFTEDA	5.00	4.81	96.2	ng/mL	+/- 30.00%
	PFBS	4.42	4.06	91.9	ng/mL	+/- 30.00%
	PFPEs	4.70	4.51	96.0	ng/mL	+/- 30.00%
	PFHXS	4.58	4.52	98.7	ng/mL	+/- 30.00%
	PFHPS	4.78	4.47	93.5	ng/mL	+/- 30.00%
	PFOS	4.65	4.25	91.4	ng/mL	+/- 30.00%
	PFNS	4.80	4.53	94.3	ng/mL	+/- 30.00%
	PFDS	4.82	4.71	97.6	ng/mL	+/- 30.00%
	PFDOS	4.85	5.11	105	ng/mL	+/- 30.00%
	4:2FTS	18.8	18.2	97.0	ng/mL	+/- 30.00%
	6:2FTS	19.0	20.1	106	ng/mL	+/- 30.00%
	8:2FTS	19.2	17.3	90.3	ng/mL	+/- 30.00%
	PFOSA	5.00	5.19	104	ng/mL	+/- 30.00%
	NMeFOSA	20.0	19.5	97.6	ng/mL	+/- 30.00%
	NEtFOSA	20.0	21.0	105	ng/mL	+/- 30.00%
	NMeFOSAA	5.00	5.49	110	ng/mL	+/- 30.00%
	NEtFOSAA	5.00	4.43	88.5	ng/mL	+/- 30.00%
	NMeFOSE	20.0	20.1	101	ng/mL	+/- 30.00%
	NEtFOSE	20.0	20.2	101	ng/mL	+/- 30.00%
	HFPO-DA	10.0	10.1	101	ng/mL	+/- 30.00%

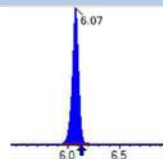
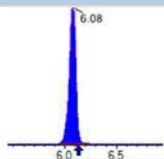
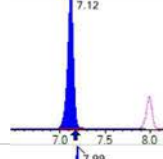
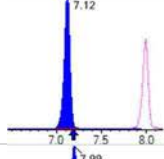
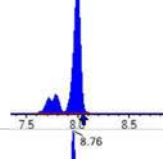
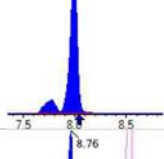
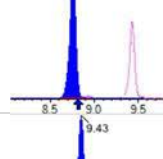
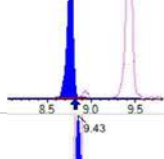
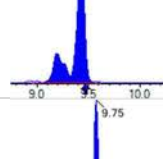
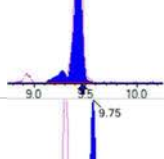
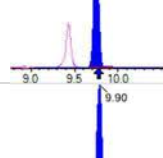
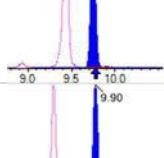
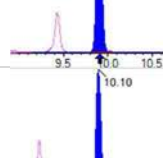
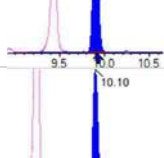
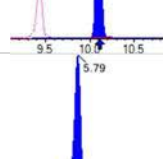
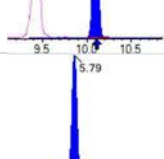
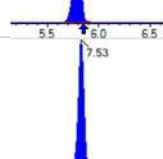
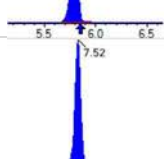
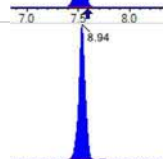
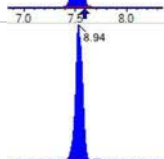
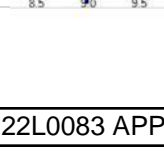
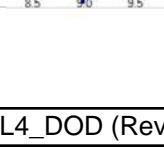
# INITIAL AND CONTINUING CALIBRATION CHECK

## EPA 1633

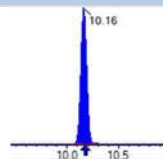
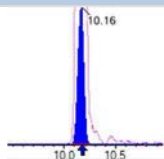
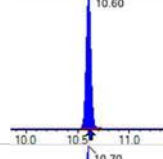
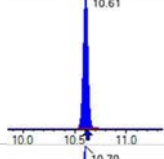
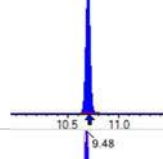
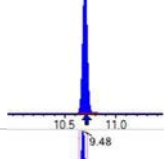
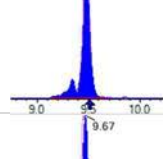
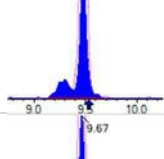
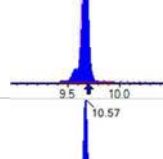
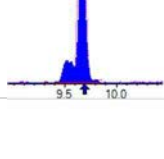
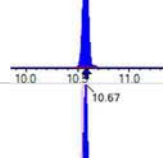
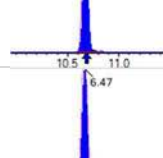
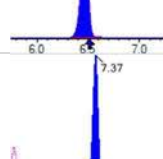
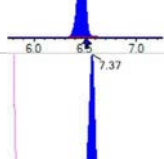
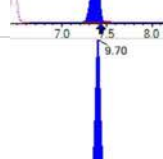
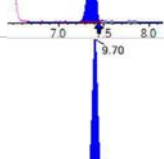
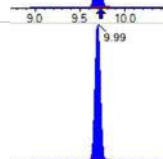
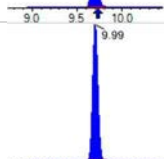
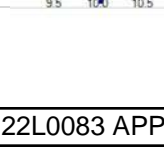
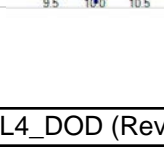
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Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Instrument ID:	Saphira	Calibration:	2251019
Standard ID:	22L0304	Sequence:	SB03903

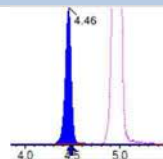
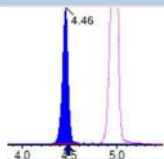
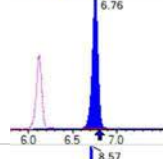
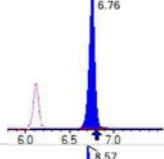
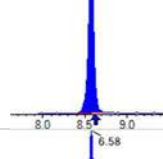
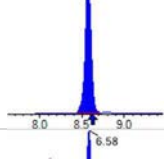
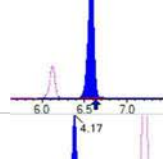
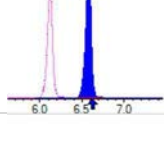
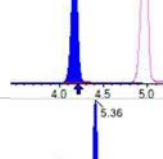
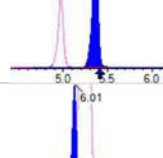
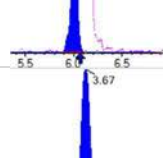
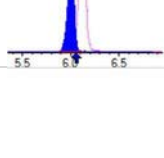
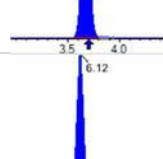
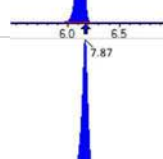
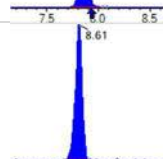

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
SB03903-CCV3	ADONA	9.45	9.56	101	ng/mL	+/- 30.00%
	PFEESA	8.90	9.27	104	ng/mL	+/- 30.00%
	PFMPA	10.0	8.98	89.8	ng/mL	+/- 30.00%
	PFMBA	10.0	9.73	97.3	ng/mL	+/- 30.00%
	NFDHA	10.0	9.13	91.3	ng/mL	+/- 30.00%
	9CL-PF3ONS	9.35	8.97	96.0	ng/mL	+/- 30.00%
	11CL-PF3OUDS	9.45	9.75	103	ng/mL	+/- 30.00%
	3:3FTCA	20.0	17.3	86.3	ng/mL	+/- 30.00%
	5:3FTCA	20.0	20.3	101	ng/mL	+/- 30.00%
	7:3FTCA	20.0	20.0	100	ng/mL	+/- 30.00%

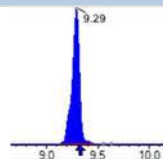
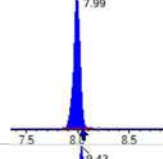
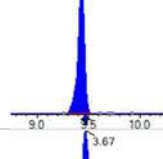
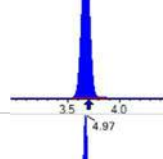
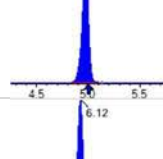
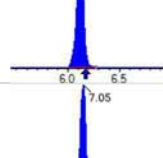
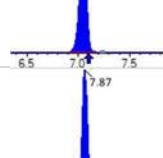
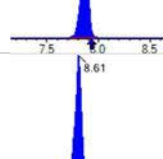
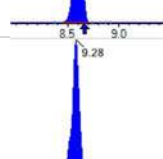
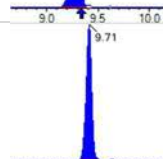

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 1018755	(3.67, 1.00) (0.00, N/A, 0.0)	58.1	N/A 0.0 0.0	20.7502 [ 20.0000 ]	103.8%			
PFPeA	(262.9 / 219.0) 745023 (262.9 / 69.0) 8674	(4.97, 1.00) (0.00, N/A, 0.0)	808.0 240.5	0.0116 13641.1 95.7	9.2667 [ 10.0000 ]	92.7%			
PFHxA	(313.0 / 269.0) 585296 (313.0 / 119.0) 62946	(6.12, 1.00) (0.00, N/A, 0.0)	661.7 477.9	0.1075 109.6 113.2	4.8298 [ 5.0000 ]	96.6%			
PFHpA	(363.0 / 319.0) 561135 (363.0 / 169.0) 168968	(7.05, 1.00) (0.00, N/A, 0.0)	689.2 571.8	0.3011 96.4 104.3	5.0365 [ 5.0000 ]	100.7%			
PFOA	(413.0 / 369.0) 617265 (413.0 / 169.0) 189001	(7.87, 1.00) (0.00, N/A, 0.0)	639.3 671.9	0.3062 90.9 93.8	5.1083 [ 5.0000 ]	102.2%			
PFNA	(463.0 / 419.0) 416148 (463.0 / 169.0) 89519	(8.61, 1.00) (0.00, N/A, 0.0)	405.9 93.6	0.2151 107.2 94.3	5.2002 [ 5.0000 ]	104.0%			
PFDA	(513.0 / 469.0) 597459 (513.0 / 169.0) 63447	(9.29, 1.00) (0.00, N/A, -0.2)	424.2 292.8	0.1062 133.5 114.3	5.5026 [ 5.0000 ]	110.1%			
PFUnA	(563.0 / 519.0) 764995 (563.0 / 169.0) 82630	(9.70, 1.00) (-0.01, N/A, -0.3)	540.6 243.3	0.1080 96.4 94.0	5.0251 [ 5.0000 ]	100.5%			
PFDoA	(613.0 / 569.0) 877900 (613.0 / 169.0) 110727	(9.88, 1.00) (0.00, N/A, -0.1)	604.8 297.6	0.1261 100.4 94.9	5.3924 [ 5.0000 ]	107.8%			
PFTrDA	(663.0 / 619.0) 731372 (663.0 / 169.0) 133355	(10.01, 1.01) (N/A, -0.02, 0.0)	683.1 336.0	0.1823 87.2 101.2	5.4436 [ 5.0000 ]	108.9%			
PFTeDA	(713.0 / 669.0) 635885 (713.0 / 169.0) 123084	(10.11, 1.00) (-0.01, N/A, -0.2)	733.5 334.7	0.1936 85.3 91.1	4.8079 [ 5.0000 ]	96.2%			

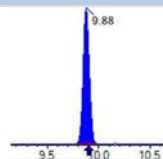
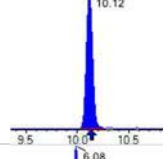
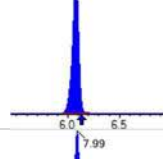
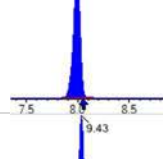
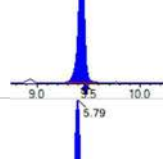
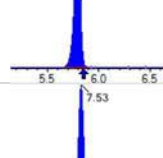
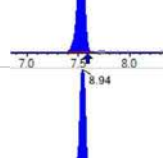
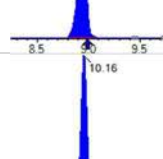
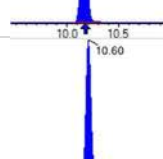
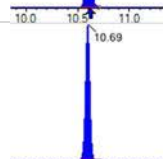

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 778463 (298.9 / 99.0) 562552	(6.07, 1.00) (0.00, N/A, -0.2)	666.3 631.8	0.7226 106.3 110.3	4.0635 [ 4.4237 ]	91.9%			
PFPeS	(349.0 / 80.0) 1533838 (349.0 / 99.0) 567541	(7.12, 0.89) (N/A, -0.06, 0.0)	751.1 691.7	0.3700 99.1 82.5	4.5142 [ 4.6919 ]	96.2%			
PFHxS	(399.0 / 80.0) 1301763 (399.0 / 99.0) 457825	(7.99, 1.00) (0.00, N/A, 0.2)	2483.2 47861.3	0.3517 102.6 100.2	4.5193 [ 4.5549 ]	99.2%			
PFHpS	(449.0 / 80.0) 1152044 (449.0 / 99.0) 326131	(8.76, 0.93) (N/A, -0.05, -0.3)	766.1 432.9	0.2831 96.5 104.7	4.4707 [ 4.7570 ]	94.0%			
PFOS	(499.0 / 80.0) 1357523 (499.0 / 99.0) 307727	(9.43, 1.00) (0.00, N/A, -0.1)	98.0 190.2	0.2267 99.2 99.8	4.2493 [ 4.6375 ]	91.6%			
PFNS	(549.0 / 80.0) 1663683 (549.0 / 99.0) 426618	(9.75, 1.03) (N/A, -0.02, 0.1)	502.6 388.5	0.2564 102.8 93.7	4.5288 [ 4.7994 ]	94.4%			
PFDS	(599.0 / 80.0) 2132805 (599.0 / 99.0) 587486	(9.90, 1.05) (N/A, -0.01, 0.2)	687.3 856.9	0.2755 108.1 127.4	4.7050 [ 4.8155 ]	97.7%			
PFDoS	(698.9 / 80.0) 1209525 (698.9 / 99.0) 288771	(10.10, 1.07) (N/A, -0.01, 0.0)	938.1 682.6	0.2387 116.2 105.1	5.1118 [ 4.8478 ]	105.4%			
4:2FTS	(327.0 / 307.0) 1131230 (327.0 / 81.0) 659897	(5.79, 1.00) (0.00, N/A, 0.1)	716.2 845.8	0.5833 116.7 105.0	18.2388 [ 18.6906 ]	97.6%			
6:2FTS	(427.0 / 407.0) 740576 (427.0 / 81.0) 508318	(7.53, 1.00) (0.00, N/A, 0.2)	980.8 707.0	0.6864 95.8 103.8	20.0659 [ 18.9808 ]	105.7%			
8:2FTS	(527.0 / 507.0) 587620 (527.0 / 81.0) 425632	(8.94, 1.00) (-0.01, N/A, 0.0)	520.2 500.5	0.7243 103.0 122.2	17.3367 [ 19.1658 ]	90.5%			

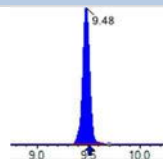
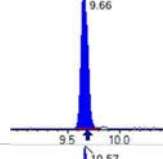
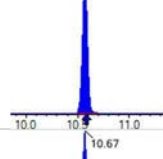
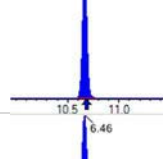
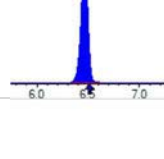


Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 2264545 (498.0 / 478.0) 49800	(10.16, 1.00) (0.00, N/A, -0.1)	937.8 27429.7	0.0220 93.0 108.7	5.1932 [ 5.0000 ]	103.9%			
NMeFOSA	(511.9 / 219.0) 1934796 (511.9 / 169.0) 1262157	(10.60, 1.00) (0.00, N/A, -0.1)	978.7 920.2	0.6523 93.6 92.7	19.5115 [ 20.0000 ]	97.6%			
NEIFOSA	(526.0 / 219.0) 2134997 (526.0 / 169.0) 2085013	(10.70, 1.00) (0.00, N/A, 0.0)	1330.1 1532.7	0.9766 86.7 92.4	21.0445 [ 20.0000 ]	105.2%			
NMeFOSAA	(570.0 / 419.0) 243935 (570.0 / 483.0) 131963	(9.48, 1.00) (0.00, N/A, 0.3)	517.8 473.0	0.5410 115.2 119.1	5.4910 [ 5.0000 ]	109.8%			
NEIFOSAA	(584.0 / 419.0) 253451 (584.0 / 526.0) 165536	(9.67, 1.00) (0.01, N/A, 0.2)	557.4 2502.3	0.6531 84.8 127.1	4.4257 [ 5.0000 ]	88.5%			
NMeFOSE	(616.1 / 59.0) 592155	(10.57, 1.00) (0.00, N/A, 0.0)	1122.5	N/A 0.0 0.0	20.1353 [ 20.0000 ]	100.7%			
NEtFOSE	(630.0 / 59.0) 152386	(10.67, 1.00) (0.01, N/A, 0.0)	1301.5	N/A 0.0 0.0	20.1781 [ 20.0000 ]	100.9%			
HFPO-DA	(285.0 / 169.0) 538547 (285.0 / 185.0) 1607015	(6.47, 1.00) (0.00, N/A, 0.1)	725.8 811.3	2.9840 117.0 106.8	10.0850 [ 10.0000 ]	100.8%			
ADONA	(377.0 / 85.0) 2115638 (377.0 / 251.0) 267257	(7.37, 1.14) (N/A, -0.07, 0.0)	701.9 504.9	0.1263 100.7 106.9	9.5568 [ 9.4270 ]	101.4%			
9CI-Pf3ONS	(531.0 / 351.0) 5633595 (533.0 / 353.0) 1782984	(9.70, 1.50) (N/A, -0.02, -0.1)	726.6 826.5	0.3165 99.9 106.8	8.9738 [ 9.3325 ]	96.2%			
11CI-PF3OUDS	(631.0 / 451.0) 4033488 (633.0 / 453.0) 1199088	(9.99, 1.55) (N/A, -0.02, 0.1)	1368.6 1340.2	0.2973 101.6 92.5	9.7505 [ 9.4321 ]	103.4%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 59538 (241.0 / 117.0) 105856	(4.46, 0.90) (N/A, -0.03, 0.0)	628.4 717.5	1.7780 0.1 102.1	17.2660 [ 20.0000 ]	86.3%			IR1,
5:3FTCA	(341.0 / 236.7) 500543 (341.0 / 217.0) 805806	(6.76, 1.10) (N/A, -0.04, 0.1)	545.2 578.8	1.6099 101.9 101.5	20.2842 [ 20.0000 ]	101.4%			
7:3FTCA	(441.0 / 317.0) 557545 (441.0 / 337.0) 457116	(8.57, 1.40) (N/A, -0.05, 0.0)	375.6 348.4	0.8199 100.8 95.0	20.0207 [ 20.0000 ]	100.1%			
PFEESA	(315.0 / 135.0) 1154243 (315.0 / 83.0) 346634	(6.58, 1.07) (N/A, -0.05, 0.0)	916.7 600.9	0.3003 106.3 112.8	9.2747 [ 8.9246 ]	103.9%			
PFMPA	(229.0 / 85.0) 194863	(4.17, 0.84) (N/A, -0.03, 0.0)	886.9	N/A 0.0 0.0	8.9798 [ 10.0000 ]	89.8%			
PFMBA	(279.0 / 85.0) 689245	(5.36, 1.08) (N/A, -0.04, 0.0)	897.6	N/A 0.0 0.0	9.7298 [ 10.0000 ]	97.3%			
NFDHA	(201.0 / 85.0) 22065 (295.0 / 201.0) 191915	(6.01, 0.98) (N/A, -0.05, 0.2)	379.5 675.0	8.6977 1.1 128.5	9.1271 [ 10.0000 ]	91.3%			IR1,
13C3_PFBA_IIS	(216.0 / 172.0) 74759	(3.67, N/A) (N/A, -0.03, N/A)	636.5	N/A	0.8551 [ 1.0000 ]	85.5% { 104.1% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 124776	(6.12, N/A) (N/A, -0.05, N/A)	894.8	N/A	0.9483 [ 1.0000 ]	94.8% { 106.8% }			
13C4_PFOA_IIS	(417.0 / 372.0) 123374	(7.87, N/A) (N/A, -0.06, N/A)	620.6	N/A	0.9857 [ 1.0000 ]	98.6% { 122.3% }			
13C5_PFNA_IIS	(468.0 / 423.0) 89586	(8.61, N/A) (N/A, -0.04, N/A)	346.9	N/A	0.8975 [ 1.0000 ]	89.7% { 92.2% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 109489	(9.29, N/A) (N/A, -0.03, N/A)	277.2	N/A	1.0558 [ 1.0000 ]	105.6% { 159.9% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 229845	(7.99, N/A) (N/A, -0.06, N/A)	582.9	N/A	0.9715 [ 1.0000 ]	97.2% { 108.9% }			
13C4_PFOS_IIS	(502.8 / 79.9) 175386	(9.43, N/A) (N/A, -0.04, N/A)	273.2	N/A	0.8742 [ 1.0000 ]	87.4% { 110.2% }			
13C4_PFBA_EIS	(217.0 / 172.0) 591368	(3.67, N/A) (N/A, -0.03, N/A)	800.0	N/A	7.6404 [ 8.0000 ]	95.5% { 103.9% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 355210	(4.97, N/A) (N/A, -0.03, N/A)	726.0	N/A	3.8668 [ 4.0000 ]	96.7% { 109.3% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 267146	(6.12, N/A) (N/A, -0.05, N/A)	621.9	N/A	1.8187 [ 2.0000 ]	90.9% { 111.9% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 246765	(7.05, N/A) (N/A, -0.05, N/A)	622.7	N/A	1.9015 [ 2.0000 ]	95.1% { 111.6% }			
13C8_PFOA_EIS	(421.0 / 376.0) 254982	(7.87, N/A) (N/A, -0.06, N/A)	878.8	N/A	1.8704 [ 2.0000 ]	93.5% { 111.0% }			
13C9_PFNA_EIS	(472.0 / 427.0) 94704	(8.61, N/A) (N/A, -0.05, N/A)	403.8	N/A	0.9678 [ 1.0000 ]	96.8% { 115.4% }			
13C6_PFDA_EIS	(519.0 / 474.0) 117770	(9.28, N/A) (N/A, -0.05, N/A)	385.2	N/A	0.7938 [ 1.0000 ]	79.4% { 108.9% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 204264	(9.71, N/A) (N/A, -0.02, N/A)	393.7	N/A	0.9562 [ 1.0000 ]	95.6% { 134.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 203244	(9.88, N/A) (N/A, -0.02, N/A)	561.7	N/A	0.8437 [ 1.0000 ]	84.4% { 111.6% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 138193	(10.12, N/A) (N/A, -0.01, N/A)	351.8	N/A	0.9438 [ 1.0000 ]	94.4% { 122.7% }			
13C3_PFBs_EIS	(302.0 / 80.0) 701421	(6.08, N/A) (N/A, -0.05, N/A)	643.2	N/A	1.8685 [ 2.0000 ]	93.4% { 106.0% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 362239	(7.99, N/A) (N/A, -0.06, N/A)	576.4	N/A	1.8608 [ 2.0000 ]	93.0% { 105.4% }			
13C8_PFOS_EIS	(507.0 / 80.0) 581336	(9.43, N/A) (N/A, -0.03, N/A)	232.0	N/A	2.0178 [ 2.0000 ]	100.9% { 105.7% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 77793	(5.79, N/A) (N/A, -0.05, N/A)	561.0	N/A	3.6752 [ 4.0000 ]	91.9% { 92.3% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 95613	(7.53, N/A) (N/A, -0.07, N/A)	525.2	N/A	3.5248 [ 4.0000 ]	88.1% { 107.5% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 92498	(8.94, N/A) (N/A, -0.05, N/A)	333.6	N/A	3.8035 [ 4.0000 ]	95.1% { 105.1% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 876212	(10.16, N/A) (N/A, -0.01, N/A)	564.1	N/A	2.0897 [ 2.0000 ]	104.5% { 105.1% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 248573	(10.60, N/A) (N/A, -0.01, N/A)	1019.1	N/A	2.3797 [ 2.0000 ]	119.0% { 121.9% }			
D5_NeFOSA_EIS	(531.1 / 169.0) 222505	(10.69, N/A) (N/A, -0.01, N/A)	1143.5	N/A	2.2812 [ 2.0000 ]	114.1% { 120.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 245192	(9.48, N/A) (N/A, -0.03, N/A)	408.9	N/A	3.6281 [ 4.0000 ]	90.7% { 104.1% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 254119	(9.66, N/A) (N/A, -0.03, N/A)	286.2	N/A	4.5244 [ 4.0000 ]	113.1% { 113.6% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 461915	(10.57, N/A) (N/A, -0.01, N/A)	700.0	N/A	22.9890 [ 20.0000 ]	114.9% { 135.0% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 236610	(10.67, N/A) (N/A, -0.01, N/A)	1082.7	N/A	21.8680 [ 20.0000 ]	109.3% { 119.2% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 699161	(6.46, N/A) (N/A, -0.05, N/A)	941.0	N/A	7.8178 [ 8.0000 ]	97.7% { 106.9% }			

## ANALYSIS SEQUENCE BLANKS

Laboratory: APPL, LLC  
 Client: AECOM  
 Sequence: SB03823  
 Calibration: 2251013

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

Lab Sample ID	Analyte	Found	Units	RL	C
SB03823-ICB1	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	0.00	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	0.0345	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	0.0142	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	0.0853	ng/mL	0.40	U
	NEtFOSE	0.0806	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: SB03823  
 Calibration: 2251013

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

Lab Sample ID	Analyte	Found	Units	RL	C
SB03823-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	8.83	ng/mL		
	13C5-PFPEA	4.42	ng/mL		
	13C5-PFHXA	2.31	ng/mL		
	13C4-PFHPA	2.21	ng/mL		
	13C8-PFOA	2.36	ng/mL		
	13C9-PFNA	1.15	ng/mL		
	13C6-PFDA	1.17	ng/mL		
	13C7-PFUnA	1.27	ng/mL		
	13C2-PFDOA	1.29	ng/mL		
	13C2-PFTEDA	1.27	ng/mL		
	13C3-PFBS	2.47	ng/mL		
	13C3-PFHXS	2.05	ng/mL		
	13C8-PFOS	2.29	ng/mL		
	13C2-4:2FTS	4.09	ng/mL		
	13C2-6:2FTS	4.05	ng/mL		
	13C2-8:2FTS	3.83	ng/mL		
	13C8-PFOSA	2.12	ng/mL		
	D5-NETFOSA	2.36	ng/mL		
	D3-NMEFOSA	2.25	ng/mL		
	D3-NMEFOSAA	3.92	ng/mL		
	D5-NETFOSAA	4.48	ng/mL		
	D7-NMEFOSE	21.1	ng/mL		
	D9-NETFOSAE	22.5	ng/mL		
	13C3-HFPO-DA	8.26	ng/mL		



Chemist: DAG  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03823-ICB1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - 2022-12-13  
 Path: S2022-12-13B013.wiff-0  
 Acquired: 2022/12/13 - 21:45

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(212.9 / 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	(262.9 / 219.0) N/A (262.9 / 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) 6236 (713.0 / 169.0) 2827	(10.13, 1.00) (-0.01, N/A, 0.8)	54.7 60.4	0.4533 243.7 243.7	0.0345	N/A			IR2,



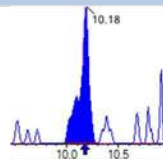
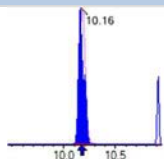
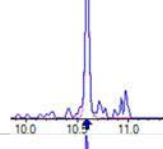
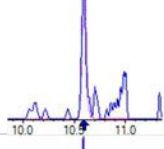
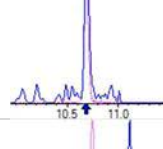
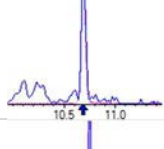
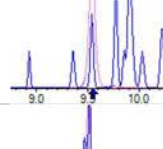
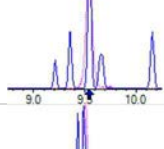
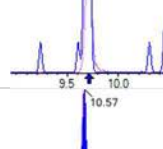
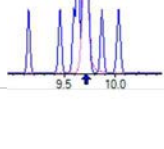
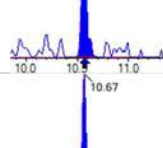
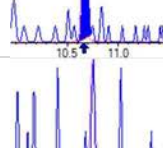
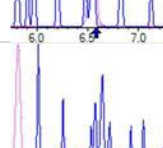
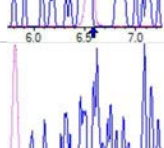
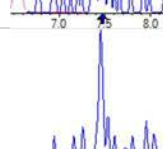
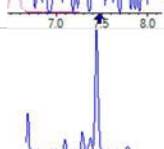
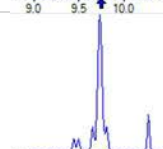
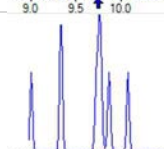
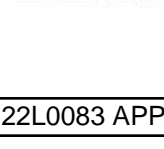
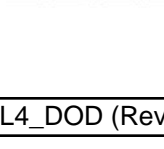


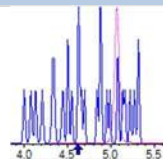
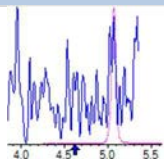
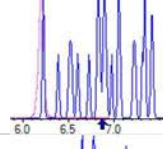
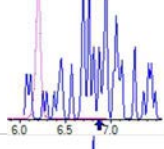
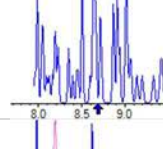
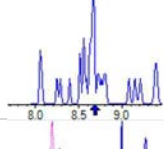
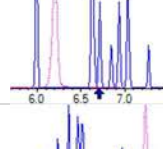
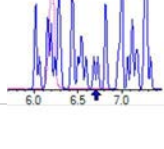
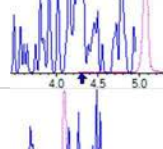
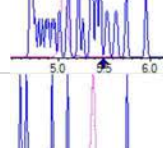
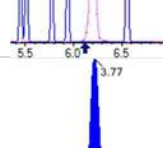
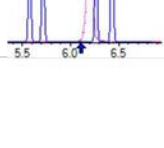
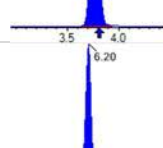
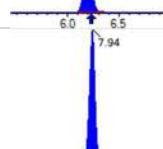
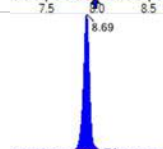
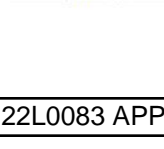
Chemist: DAG  
 Instrument: Saphira  
 Type: Sciex Q3 5500

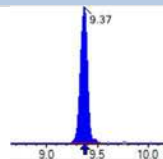
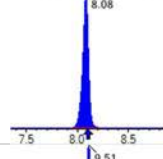
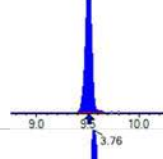
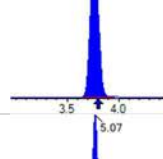
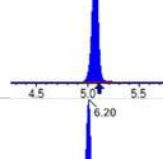
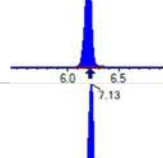
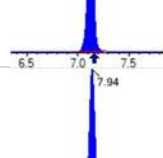
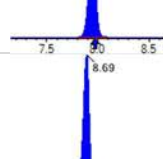
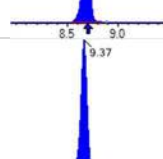
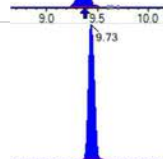

Sample I.D.: SB03823-ICB1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

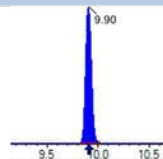
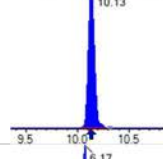
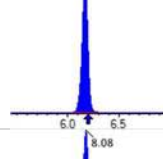
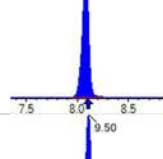
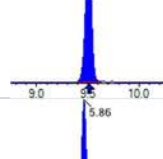
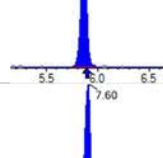
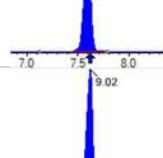
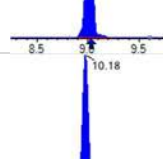
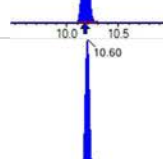
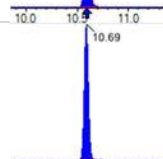

Quant Method: 1633 - 2022-12-13  
 Path: S2022-12-13B013.wiff-0  
 Acquired: 2022/12/13 - 21:45

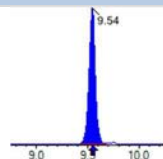
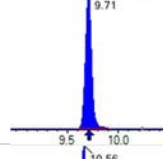
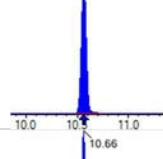
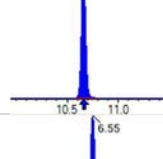
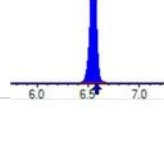
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	( 298.9 / 80.0 ) N/A ( 298.9 / 99.0 ) N/A	( N/A , N/A ) ( N/A , N/A , 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	( 698.9 / 80.0 ) N/A ( 698.9 / 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.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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 ) 8009 ( 498.0 / 478.0 ) 919	( 10.18 , 1.00 ) ( 0.01 , N/A , 1.4 )	21.4 68711.7	0.1148 504.1 504.1	0.0142	N/A			
NMeFOSA	( 511.9 / 219.0 ) N/A ( 511.9 / 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	( 616.1 / 59.0 ) 3257	( 10.57 , 1.00 ) ( 0.00 , N/A , 0.0 )	47.5	N/A 0.0 0.0	0.0853	N/A			
NEIFOSE	( 630.0 / 59.0 ) 824	( 10.67 , 1.00 ) ( 0.01 , N/A , 0.0 )	21.2	N/A 0.0 0.0	0.0806	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.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 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	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(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) 134866	(3.77, N/A) (N/A, -0.04, N/A)	720.2	N/A	1.1115 [ 1.0000 ]	111.2% { 106.5% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 206317	(6.20, N/A) (N/A, -0.03, N/A)	608.5	N/A	1.1306 [ 1.0000 ]	113.1% { 105.4% }			
13C4_PFOA_IIS	(417.0 / 372.0) 187514	(7.94, N/A) (N/A, -0.02, N/A)	472.9	N/A	1.0742 [ 1.0000 ]	107.4% { 106.4% }			
13C5_PFNxA_IIS	(468.0 / 423.0) 158249	(8.69, N/A) (N/A, -0.02, N/A)	391.9	N/A	1.1646 [ 1.0000 ]	116.5% { 119.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 153438	(9.37, N/A) (N/A, -0.01, N/A)	360.8	N/A	1.1058 [ 1.0000 ]	110.6% { 108.6% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 372412	(8.08, N/A) (N/A, -0.02, N/A)	726.9	N/A	1.1539 [ 1.0000 ]	115.4% { 111.1% }			
13C4_PFOS_IIS	(502.8 / 79.9) 289279	(9.51, N/A) (N/A, 0.00, N/A)	393.2	N/A	1.1487 [ 1.0000 ]	114.9% { 104.9% }			
13C4_PFBA_EIS	(217.0 / 172.0) 908255	(3.76, N/A) (N/A, -0.04, N/A)	770.5	N/A	8.8349 [ 8.0000 ]	110.4% { 114.2% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 504536	(5.07, N/A) (N/A, -0.04, N/A)	763.6	N/A	4.4159 [ 4.0000 ]	110.4% { 118.3% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 401333	(6.20, N/A) (N/A, -0.02, N/A)	620.0	N/A	2.3082 [ 2.0000 ]	115.4% { 126.8% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 333936	(7.13, N/A) (N/A, -0.02, N/A)	689.3	N/A	2.2124 [ 2.0000 ]	110.6% { 115.7% }			
13C8_PFOA_EIS	(421.0 / 376.0) 339328	(7.94, N/A) (N/A, -0.02, N/A)	1014.1	N/A	2.3600 [ 2.0000 ]	118.0% { 125.1% }			
13C9_PFNA_EIS	(472.0 / 427.0) 140093	(8.69, N/A) (N/A, -0.01, N/A)	383.5	N/A	1.1490 [ 1.0000 ]	114.9% { 129.9% }			
13C6_PFDA_EIS	(519.0 / 474.0) 171598	(9.37, N/A) (N/A, -0.01, N/A)	333.0	N/A	1.1661 [ 1.0000 ]	116.6% { 141.0% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 257418	(9.73, N/A) (N/A, 0.00, N/A)	534.9	N/A	1.2737 [ 1.0000 ]	127.4% { 138.6% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 319752	(9.90, N/A) (N/A, 0.00, N/A)	561.4	N/A	1.2865 [ 1.0000 ]	128.7% { 130.8% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 197540	(10.13, N/A) (N/A, 0.00, N/A)	345.4	N/A	1.2658 [ 1.0000 ]	126.6% { 132.7% }			
13C3_PFBs_EIS	(302.0 / 80.0) 1060125	(6.17, N/A) (N/A, -0.03, N/A)	1017.4	N/A	2.4740 [ 2.0000 ]	123.7% { 137.3% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 494540	(8.08, N/A) (N/A, -0.02, N/A)	748.5	N/A	2.0507 [ 2.0000 ]	102.5% { 110.4% }			
13C8_PFOS_EIS	(507.0 / 80.0) 824634	(9.50, N/A) (N/A, 0.00, N/A)	592.8	N/A	2.2896 [ 2.0000 ]	114.5% { 129.0% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 102491	(5.86, N/A) (N/A, -0.03, N/A)	529.9	N/A	4.0924 [ 4.0000 ]	102.3% { 109.8% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 124018	(7.60, N/A) (N/A, -0.02, N/A)	583.5	N/A	4.0500 [ 4.0000 ]	101.3% { 111.5% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 117086	(9.02, N/A) (N/A, -0.01, N/A)	349.5	N/A	3.8325 [ 4.0000 ]	95.8% { 105.8% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 1152362	(10.18, N/A) (N/A, 0.01, N/A)	1025.9	N/A	2.1152 [ 2.0000 ]	105.8% { 111.3% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 314976	(10.60, N/A) (N/A, 0.00, N/A)	956.5	N/A	2.2524 [ 2.0000 ]	112.6% { 134.6% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 286579	(10.69, N/A) (N/A, 0.00, N/A)	1156.5	N/A	2.3620 [ 2.0000 ]	118.1% { 133.6% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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 ) 333864	( 9.54 , N/A ) ( N/A , 0.00 , N/A )	278.0	N/A	3.9164 [ 4.0000 ]	97.9% { 105.6% }			
D5_EtFOSAA_EIS	( 589.0 / 419.0 ) 345380	( 9.71 , N/A ) ( N/A , 0.00 , N/A )	355.3	N/A	4.4775 [ 4.0000 ]	111.9% { 116.6% }			
D7_NMeFOSE_EIS	( 623.2 / 58.9 ) 566318	( 10.56 , N/A ) ( N/A , 0.01 , N/A )	1440.8	N/A	21.1239 [ 20.0000 ]	105.6% { 124.8% }			
D9_NEtFOSE_EIS	( 639.2 / 58.9 ) 302329	( 10.66 , N/A ) ( N/A , 0.01 , N/A )	1820.0	N/A	22.5056 [ 20.0000 ]	112.5% { 126.0% }			
13C3_HFPODA_EIS	( 287.0 / 169.0 ) 880191	( 6.55 , N/A ) ( N/A , -0.03 , N/A )	878.5	N/A	8.2642 [ 8.0000 ]	103.3% { 117.5% }			

## ANALYSIS SEQUENCE BLANKS

Laboratory: APPL, LLC  
 Client: AECOM  
 Sequence: SB03835  
 Calibration: 2251013

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

Lab Sample ID	Analyte	Found	Units	RL	C
SB03835-CCB1	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	0.00	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: SB03835  
 Calibration: 2251013

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

Lab Sample ID	Analyte	Found	Units	RL	C
SB03835-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	10.5	ng/mL		
	13C5-PFPEA	4.64	ng/mL		
	13C5-PFHXA	2.18	ng/mL		
	13C4-PFHPA	2.20	ng/mL		
	13C8-PFOA	2.65	ng/mL		
	13C9-PFNA	1.19	ng/mL		
	13C6-PFDA	1.26	ng/mL		
	13C7-PFUnA	1.44	ng/mL		
	13C2-PFDOA	1.02	ng/mL		
	13C2-PFTEDA	1.41	ng/mL		
	13C3-PFBS	2.59	ng/mL		
	13C3-PFHXS	2.45	ng/mL		
	13C8-PFOS	2.69	ng/mL		
	13C2-4:2FTS	4.37	ng/mL		
	13C2-6:2FTS	4.03	ng/mL		
	13C2-8:2FTS	3.56	ng/mL		
	13C8-PFOSA	2.45	ng/mL		
	D5-NETFOSA	2.38	ng/mL		
	D3-NMEFOSA	2.16	ng/mL		
	D3-NMEFOSAA	4.12	ng/mL		
	D5-NETFOSAA	4.11	ng/mL		
	D7-NMEFOSE	19.3	ng/mL		
	D9-NETFOSAE	21.0	ng/mL		
	13C3-HFPO-DA	9.79	ng/mL		





Chemist: DAG  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03835-CCB1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - 2022-12-13  
 Path: S2022-12-14AS2022-12-14A02.wiff-  
 Acquired: 2022/12/14 - 10:56

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	(212.9 / 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	(262.9 / 219.0) N/A (262.9 / 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			
PFTrDA	(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			



Chemist: DAG  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03835-CCB1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - 2022-12-13  
 Path: S2022-12-14AS2022-12-14A02.wiff-  
 Acquired: 2022/12/14 - 10:56

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	(298.9 / 80.0) N/A (298.9 / 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	(698.9 / 80.0) N/A (698.9 / 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			



Chemist: DAG  
Instrument: Saphira  
Type: Sciex Q3 5500

Sample I.D.: SB03835-CCB1  
DF, IV: 1, 10.0µL  
Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - 2022-12-13  
Path: S2022-12-14AS2022-12-14A02.wiff-  
n  
Acquired: 2022/12/14 - 10:56

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			
NMeFOFA	(511.9 / 219.0) N/A (511.9 / 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			
NEtFOFA	(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) 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	(616.1 / 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			

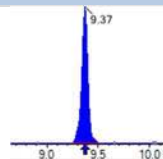
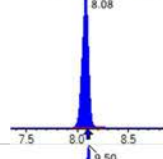
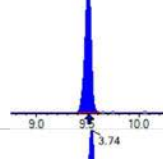
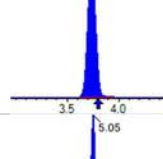
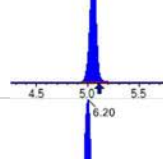
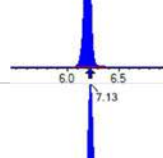
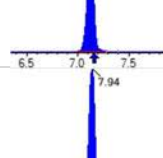
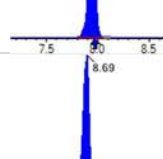
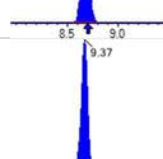
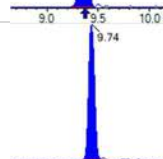



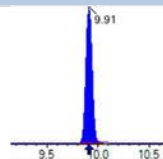
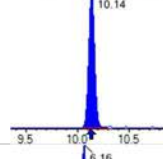
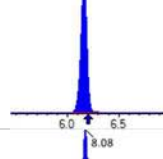
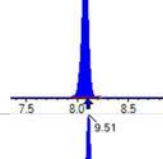
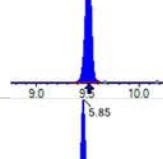
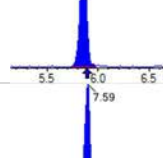
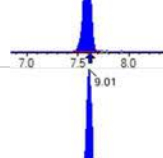
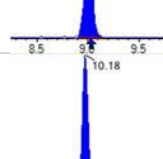
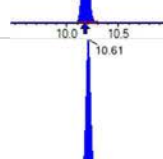
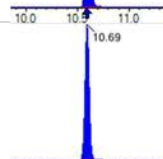

Chemist: DAG  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03835-CCB1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - 2022-12-13  
 Path: S2022-12-14AS2022-12-14A02.wiff-  
 Acquired: 2022/12/14 - 10:56

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	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(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) 78642	(3.74, N/A) (N/A, 0.02, N/A)	703.3	N/A	0.6482 [ 1.0000 ]	64.8% { 81.7% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 124570	(6.19, N/A) (N/A, 0.02, N/A)	773.8	N/A	0.6826 [ 1.0000 ]	68.3% { 71.1% }			
13C4_PFOA_IIS	(417.0 / 372.0) 107576	(7.94, N/A) (N/A, 0.02, N/A)	517.9	N/A	0.6162 [ 1.0000 ]	61.6% { 74.2% }			
13C5_PFNxA_IIS	(468.0 / 423.0) 81915	(8.69, N/A) (N/A, 0.02, N/A)	333.8	N/A	0.6028 [ 1.0000 ]	60.3% { 69.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-Imin, $\Delta$ RT-CVmin, $\Delta$ 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	(515.1 / 470.1) 94385	(9.37, N/A) (N/A, 0.02, N/A)	441.7	N/A	0.6802 [1.0000]	68.0% {72.1%}			
18O2_PFHxS_IIS	(403.0 / 83.9) 207588	(8.08, N/A) (N/A, 0.02, N/A)	853.8	N/A	0.6432 [1.0000]	64.3% {73.3%}			
13C4_PFOS_IIS	(502.8 / 79.9) 173456	(9.50, N/A) (N/A, 0.01, N/A)	304.7	N/A	0.6888 [1.0000]	68.9% {68.1%}			
13C4_PFBA_EIS	(217.0 / 172.0) 628706	(3.74, N/A) (N/A, 0.02, N/A)	882.0	N/A	10.4879 [8.0000]	131.1% {98.2%}			
13C5_PFPeA_EIS	(267.9 / 223.0) 320053	(5.05, N/A) (N/A, 0.02, N/A)	845.5	N/A	4.6395 [4.0000]	116.0% {98.0%}			
13C5_PFHxA_EIS	(318.0 / 273.0) 229356	(6.20, N/A) (N/A, 0.02, N/A)	717.9	N/A	2.1847 [2.0000]	109.2% {82.9%}			
13C4_PFHpA_EIS	(367.0 / 322.0) 200698	(7.13, N/A) (N/A, 0.02, N/A)	587.4	N/A	2.2022 [2.0000]	110.1% {86.3%}			
13C8_PFOA_EIS	(421.0 / 376.0) 218510	(7.94, N/A) (N/A, 0.02, N/A)	467.0	N/A	2.6490 [2.0000]	132.4% {94.3%}			
13C9_PFNA_EIS	(472.0 / 427.0) 75297	(8.69, N/A) (N/A, 0.02, N/A)	13406.7	N/A	1.1931 [1.0000]	119.3% {73.2%}			
13C6_PFDA_EIS	(519.0 / 474.0) 113755	(9.37, N/A) (N/A, 0.02, N/A)	332.8	N/A	1.2567 [1.0000]	125.7% {93.2%}			
13C7_PFUnA_EIS	(570.0 / 525.0) 178467	(9.74, N/A) (N/A, 0.01, N/A)	237.6	N/A	1.4355 [1.0000]	143.5% {102.2%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-Imin, $\Delta$ RT-CVmin, $\Delta$ 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) 155247	(9.91, N/A) (N/A, 0.01, N/A)	398.1	N/A	1.0154 [1.0000]	101.5% {74.2%}			
13C2_PFTeDA_EIS	(715.0 / 670.0) 135658	(10.14, N/A) (N/A, 0.00, N/A)	349.7	N/A	1.4131 [1.0000]	141.3% {100.6%}			
13C3_PFBs_EIS	(302.0 / 80.0) 617691	(6.16, N/A) (N/A, 0.02, N/A)	709.0	N/A	2.5861 [2.0000]	129.3% {90.8%}			
13C3_PFHxS_EIS	(402.0 / 80.0) 329075	(8.08, N/A) (N/A, 0.02, N/A)	848.2	N/A	2.4481 [2.0000]	122.4% {87.2%}			
13C8_PFOS_EIS	(507.0 / 80.0) 580739	(9.51, N/A) (N/A, 0.01, N/A)	484.1	N/A	2.6891 [2.0000]	134.5% {97.6%}			
13C2_4:2FTS_EIS	(329.0 / 81.0) 61023	(5.85, N/A) (N/A, 0.02, N/A)	357.1	N/A	4.3713 [4.0000]	109.3% {81.5%}			
13C2_6:2FTS_EIS	(429.0 / 81.0) 68769	(7.59, N/A) (N/A, 0.02, N/A)	541.9	N/A	4.0289 [4.0000]	100.7% {68.1%}			
13C2_8:2FTS_EIS	(529.0 / 81.0) 60575	(9.01, N/A) (N/A, 0.01, N/A)	331.0	N/A	3.5571 [4.0000]	88.9% {62.5%}			
13C8_PFOsa_EIS	(506.0 / 78.0) 800573	(10.18, N/A) (N/A, 0.00, N/A)	1283.5	N/A	2.4507 [2.0000]	122.5% {90.7%}			
D3_NMeFOSA_EIS	(515.0 / 169.0) 180858	(10.61, N/A) (N/A, 0.01, N/A)	1024.1	N/A	2.1569 [2.0000]	107.8% {77.3%}			
D5_NEiFOSA_EIS	(531.1 / 169.0) 172986	(10.69, N/A) (N/A, 0.00, N/A)	1193.9	N/A	2.3778 [2.0000]	118.9% {91.4%}			



Chemist: DAG  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03835-CCB1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - 2022-12-13  
 Path: S2022-12-14AS2022-12-14A02.wiff-  
 Acquired: 2022/12/14 - 10:56

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) 210505	(9.54, N/A) (N/A, 0.01, N/A)	397.0	N/A	4.1182 [4.0000]	103.0% {82.9%}			
D5_EtFOSAA_EIS	(589.0 / 419.0) 190123	(9.71, N/A) (N/A, 0.01, N/A)	310.4	N/A	4.1106 [4.0000]	102.8% {77.4%}			
D7_NMeFOSE_EIS	(623.2 / 58.9) 310432	(10.57, N/A) (N/A, 0.00, N/A)	823.1	N/A	19.3111 [20.0000]	96.6% {76.5%}			
D9_NEtFOSE_EIS	(639.2 / 58.9) 168854	(10.67, N/A) (N/A, 0.00, N/A)	1011.2	N/A	20.9628 [20.0000]	104.8% {77.4%}			
13C3_HFPODA_EIS	(287.0 / 169.0) 629253	(6.54, N/A) (N/A, 0.02, N/A)	982.7	N/A	9.7852 [8.0000]	122.3% {94.7%}			

## ANALYSIS SEQUENCE BLANKS

Laboratory: APPL, LLC  
 Client: AECOM  
 Sequence: SB03835  
 Calibration: 2251013

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

Lab Sample ID	Analyte	Found	Units	RL	C
SB03835-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	0.00	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	0.0146	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: SB03835  
 Calibration: 2251013

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

Lab Sample ID	Analyte	Found	Units	RL	C
SB03835-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	10.3	ng/mL		
	13C5-PFPEA	4.35	ng/mL		
	13C5-PFHXA	2.53	ng/mL		
	13C4-PFHPA	2.19	ng/mL		
	13C8-PFOA	2.51	ng/mL		
	13C9-PFNA	1.35	ng/mL		
	13C6-PFDA	1.42	ng/mL		
	13C7-PFUnA	1.47	ng/mL		
	13C2-PFDOA	1.20	ng/mL		
	13C2-PFTEDA	1.26	ng/mL		
	13C3-PFBS	2.50	ng/mL		
	13C3-PFHXS	2.43	ng/mL		
	13C8-PFOS	2.80	ng/mL		
	13C2-4:2FTS	5.34	ng/mL		
	13C2-6:2FTS	5.19	ng/mL		
	13C2-8:2FTS	4.79	ng/mL		
	13C8-PFOSA	2.53	ng/mL		
	D5-NETFOSA	2.69	ng/mL		
	D3-NMEFOSA	2.53	ng/mL		
	D3-NMEFOSAA	5.34	ng/mL		
	D5-NETFOSAA	5.05	ng/mL		
	D7-NMEFOSE	24.1	ng/mL		
	D9-NETFOSAE	25.1	ng/mL		
	13C3-HFPO-DA	8.96	ng/mL		



Chemist: DAG  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03835-CCB2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - 2022-12-13  
 Path: S2022-12-14AS2022-12-14A07.wiff-  
 Acquired: 2022/12/14 - 11:59

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(212.9 / 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	(262.9 / 219.0) N/A (262.9 / 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			
PFTrDA	(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			



Chemist: DAG  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03835-CCB2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - 2022-12-13  
 Path: S2022-12-14AS2022-12-14A07.wiff-  
 Acquired: 2022/12/14 - 11:59

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[min], $\Delta$ RT-CV[min], $\Delta$ 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	( 298.9 / 80.0 ) N/A ( 298.9 / 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 ) 4952 ( 499.0 / 99.0 ) 1095	( 9.52 , 1.00 ) ( 0.00 , N/A , -0.2 )	40.4 524.0	0.2212 96.4 86.7	0.0146	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	( 698.9 / 80.0 ) N/A ( 698.9 / 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			



Chemist: DAG  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03835-CCB2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - 2022-12-13  
 Path: S2022-12-14AS2022-12-14A07.wiff-  
 Acquired: 2022/12/14 - 11:59

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	( 511.9 / 219.0 ) N/A ( 511.9 / 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	( 616.1 / 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			



Chemist: DAG  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03835-CCB2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - 2022-12-13  
 Path: S2022-12-14AS2022-12-14A07.wiff-  
 Acquired: 2022/12/14 - 11:59

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 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	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(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) 81062	(3.80, N/A) (N/A, 0.08, N/A)	602.4	N/A	0.6681 [ 1.0000 ]	66.8% { 84.2% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 136381	(6.26, N/A) (N/A, 0.08, N/A)	520.5	N/A	0.7474 [ 1.0000 ]	74.7% { 77.8% }			
13C4_PFOA_IIS	(417.0 / 372.0) 121284	(7.98, N/A) (N/A, 0.05, N/A)	672.6	N/A	0.6948 [ 1.0000 ]	69.5% { 83.7% }			
13C5_PFNxA_IIS	(468.0 / 423.0) 91557	(8.71, N/A) (N/A, 0.04, N/A)	294.2	N/A	0.6738 [ 1.0000 ]	67.4% { 78.1% }			

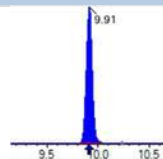
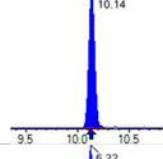
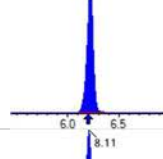
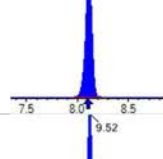
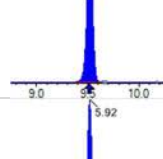
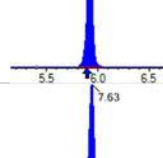
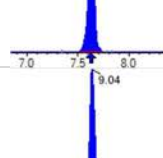
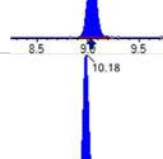
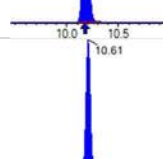
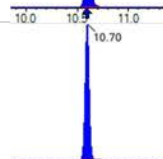



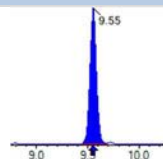
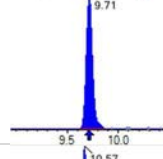
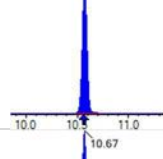
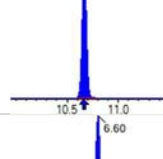
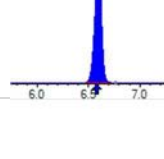
Chemist: DAG  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03835-CCB2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - 2022-12-13  
 Path: S2022-12-14AS2022-12-14A07.wiff-  
 Acquired: 2022/12/14 - 11:59

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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	(515.1 / 470.1) 90675	(9.39, N/A) (N/A, 0.04, N/A)	185.4	N/A	0.6535 [ 1.0000 ]	65.3% { 69.2% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 228770	(8.11, N/A) (N/A, 0.05, N/A)	869.8	N/A	0.7088 [ 1.0000 ]	70.9% { 80.8% }			
13C4_PFOS_IIS	(502.8 / 79.9) 177265	(9.52, N/A) (N/A, 0.03, N/A)	445.7	N/A	0.7039 [ 1.0000 ]	70.4% { 69.6% }			
13C4_PFBA_EIS	(217.0 / 172.0) 638254	(3.80, N/A) (N/A, 0.08, N/A)	928.2	N/A	10.3294 [ 8.0000 ]	129.1% { 99.7% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 328234	(5.11, N/A) (N/A, 0.09, N/A)	809.4	N/A	4.3460 [ 4.0000 ]	108.6% { 100.5% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 291099	(6.25, N/A) (N/A, 0.08, N/A)	891.5	N/A	2.5327 [ 2.0000 ]	126.6% { 105.2% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 218804	(7.17, N/A) (N/A, 0.06, N/A)	475.7	N/A	2.1930 [ 2.0000 ]	109.7% { 94.1% }			
13C8_PFOA_EIS	(421.0 / 376.0) 233233	(7.98, N/A) (N/A, 0.05, N/A)	596.1	N/A	2.5079 [ 2.0000 ]	125.4% { 100.6% }			
13C9_PFNA_EIS	(472.0 / 427.0) 95053	(8.71, N/A) (N/A, 0.04, N/A)	389.3	N/A	1.3475 [ 1.0000 ]	134.8% { 92.4% }			
13C6_PFDA_EIS	(519.0 / 474.0) 123149	(9.38, N/A) (N/A, 0.04, N/A)	320.1	N/A	1.4161 [ 1.0000 ]	141.6% { 100.9% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 175716	(9.74, N/A) (N/A, 0.01, N/A)	409.5	N/A	1.4712 [ 1.0000 ]	147.1% { 100.6% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 176122	(9.91, N/A) (N/A, 0.01, N/A)	829.1	N/A	1.1991 [ 1.0000 ]	119.9% { 84.2% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 116471	(10.14, N/A) (N/A, 0.00, N/A)	452.8	N/A	1.2629 [ 1.0000 ]	126.3% { 86.4% }			
13C3_PFBs_EIS	(302.0 / 80.0) 657485	(6.22, N/A) (N/A, 0.08, N/A)	962.4	N/A	2.4978 [ 2.0000 ]	124.9% { 96.7% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 360165	(8.11, N/A) (N/A, 0.05, N/A)	728.7	N/A	2.4313 [ 2.0000 ]	121.6% { 95.4% }			
13C8_PFOS_EIS	(507.0 / 80.0) 618881	(9.52, N/A) (N/A, 0.03, N/A)	324.1	N/A	2.8041 [ 2.0000 ]	140.2% { 104.0% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 82184	(5.92, N/A) (N/A, 0.09, N/A)	645.1	N/A	5.3420 [ 4.0000 ]	133.5% { 109.8% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 97584	(7.63, N/A) (N/A, 0.06, N/A)	656.3	N/A	5.1877 [ 4.0000 ]	129.7% { 96.7% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 89825	(9.04, N/A) (N/A, 0.04, N/A)	307.3	N/A	4.7863 [ 4.0000 ]	119.7% { 92.6% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 844788	(10.18, N/A) (N/A, 0.01, N/A)	685.7	N/A	2.5305 [ 2.0000 ]	126.5% { 95.7% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 216736	(10.61, N/A) (N/A, 0.01, N/A)	852.3	N/A	2.5292 [ 2.0000 ]	126.5% { 92.7% }			
D5_NeIFOSA_EIS	(531.1 / 169.0) 200157	(10.70, N/A) (N/A, 0.01, N/A)	1097.5	N/A	2.6922 [ 2.0000 ]	134.6% { 105.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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 ) 278909	( 9.55 , N/A ) ( N/A , 0.02 , N/A )	342.6	N/A	5.3391 [ 4.0000 ]	133.5% { 109.9% }			
D5_EtFOSAA_EIS	( 589.0 / 419.0 ) 238885	( 9.71 , N/A ) ( N/A , 0.02 , N/A )	420.2	N/A	5.0538 [ 4.0000 ]	126.3% { 97.2% }			
D7_NMeFOSE_EIS	( 623.2 / 58.9 ) 395712	( 10.57 , N/A ) ( N/A , 0.01 , N/A )	955.7	N/A	24.0872 [ 20.0000 ]	120.4% { 97.5% }			
D9_NEtFOSE_EIS	( 639.2 / 58.9 ) 206221	( 10.67 , N/A ) ( N/A , 0.01 , N/A )	1068.0	N/A	25.0516 [ 20.0000 ]	125.3% { 94.5% }			
13C3_HFPODA_EIS	( 287.0 / 169.0 ) 630812	( 6.60 , N/A ) ( N/A , 0.07 , N/A )	761.9	N/A	8.9600 [ 8.0000 ]	112.0% { 94.9% }			



## ANALYSIS SEQUENCE BLANKS

Laboratory: APPL, LLC  
 Client: AECOM  
 Sequence: SB03835  
 Calibration: 2251013

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

Lab Sample ID	Analyte	Found	Units	RL	C
SB03835-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	0.00	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: SB03835  
 Calibration: 2251013

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

Lab Sample ID	Analyte	Found	Units	RL	C
SB03835-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	9.68	ng/mL		
	13C5-PFPEA	4.89	ng/mL		
	13C5-PFHXA	2.41	ng/mL		
	13C4-PFHPA	2.78	ng/mL		
	13C8-PFOA	2.54	ng/mL		
	13C9-PFNA	1.09	ng/mL		
	13C6-PFDA	1.58	ng/mL		
	13C7-PFUnA	1.80	ng/mL		
	13C2-PFDOA	1.41	ng/mL		
	13C2-PFTEDA	1.72	ng/mL		
	13C3-PFBS	2.57	ng/mL		
	13C3-PFHXS	2.59	ng/mL		
	13C8-PFOS	2.44	ng/mL		
	13C2-4:2FTS	4.49	ng/mL		
	13C2-6:2FTS	5.06	ng/mL		
	13C2-8:2FTS	4.74	ng/mL		
	13C8-PFOSA	2.55	ng/mL		
	D5-NETFOSA	2.98	ng/mL		
	D3-NMEFOSA	2.55	ng/mL		
	D3-NMEFOSAA	5.35	ng/mL		
	D5-NETFOSAA	5.56	ng/mL		
	D7-NMEFOSE	26.3	ng/mL		
	D9-NETFOSSE	29.7	ng/mL		
	13C3-HFPO-DA	10.2	ng/mL		



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03835-CCB3  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (25)  
 Acquired: 2022/12/14 - 16:26

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(212.9 / 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	(262.9 / 219.0) N/A (262.9 / 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			
PFTrDA	(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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03835-CCB3  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (25)  
 Acquired: 2022/12/14 - 16:26

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	( 298.9 / 80.0 ) N/A ( 298.9 / 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	( 698.9 / 80.0 ) N/A ( 698.9 / 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.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 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	(511.9 / 219.0) N/A (511.9 / 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) 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	(616.1 / 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			

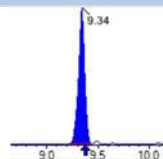
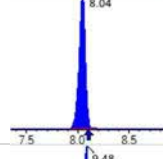
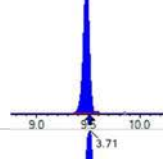
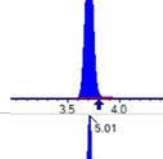
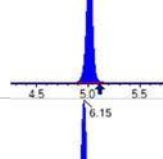
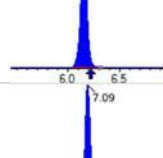
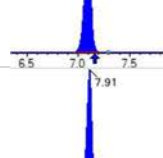
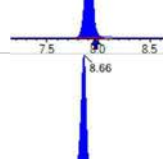
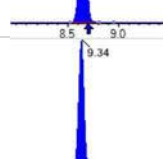
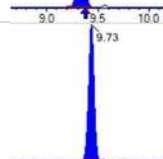



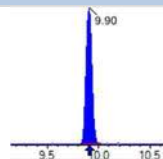
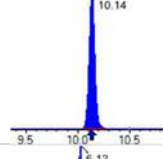
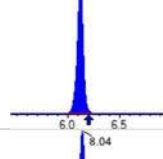
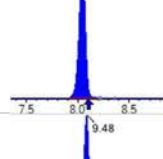
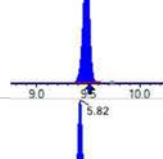
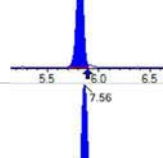
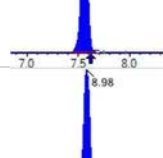
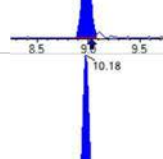
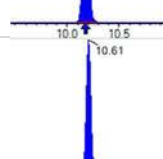
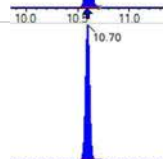
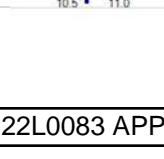
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03835-CCB3  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

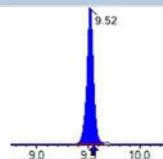
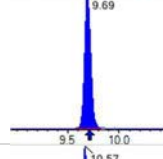
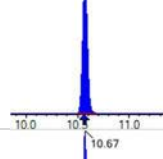
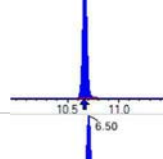
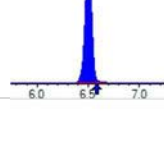
Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (25)  
 Acquired: 2022/12/14 - 16:26

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(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) 81261	(3.70, N/A) (N/A, -0.01, N/A)	736.0	N/A	0.6697 [ 1.0000 ]	67.0% { 84.4% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 125160	(6.16, N/A) (N/A, -0.02, N/A)	579.7	N/A	0.6859 [ 1.0000 ]	68.6% { 71.4% }			
13C4_PFOA_IIS	(417.0 / 372.0) 129783	(7.91, N/A) (N/A, -0.01, N/A)	731.0	N/A	0.7435 [ 1.0000 ]	74.3% { 89.5% }			
13C5_PFNAl_IIS	(468.0 / 423.0) 114177	(8.65, N/A) (N/A, -0.02, N/A)	371.6	N/A	0.8402 [ 1.0000 ]	84.0% { 97.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 88998	(9.34, N/A) (N/A, 0.00, N/A)	296.2	N/A	0.6414 [ 1.0000 ]	64.1% { 67.9% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 231716	(8.04, N/A) (N/A, -0.02, N/A)	843.0	N/A	0.7180 [ 1.0000 ]	71.8% { 81.8% }			
13C4_PFOS_IIS	(502.8 / 79.9) 187715	(9.48, N/A) (N/A, -0.01, N/A)	366.0	N/A	0.7454 [ 1.0000 ]	74.5% { 73.7% }			
13C4_PFBA_EIS	(217.0 / 172.0) 599810	(3.71, N/A) (N/A, -0.01, N/A)	1025.7	N/A	9.6833 [ 8.0000 ]	121.0% { 93.6% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 339169	(5.01, N/A) (N/A, -0.02, N/A)	792.9	N/A	4.8934 [ 4.0000 ]	122.3% { 103.8% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 253699	(6.15, N/A) (N/A, -0.02, N/A)	461.4	N/A	2.4052 [ 2.0000 ]	120.3% { 91.6% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 254796	(7.09, N/A) (N/A, -0.01, N/A)	639.5	N/A	2.7827 [ 2.0000 ]	139.1% { 109.6% }			
13C8_PFOA_EIS	(421.0 / 376.0) 253264	(7.91, N/A) (N/A, -0.01, N/A)	538.3	N/A	2.5449 [ 2.0000 ]	127.2% { 109.3% }			
13C9_PFNA_EIS	(472.0 / 427.0) 96079	(8.66, N/A) (N/A, -0.01, N/A)	337.9	N/A	1.0922 [ 1.0000 ]	109.2% { 93.4% }			
13C6_PFDA_EIS	(519.0 / 474.0) 135115	(9.34, N/A) (N/A, -0.01, N/A)	364.2	N/A	1.5830 [ 1.0000 ]	158.3% { 110.7% }			S2,
13C7_PFUnA_EIS	(570.0 / 525.0) 211111	(9.73, N/A) (N/A, 0.00, N/A)	589.0	N/A	1.8008 [ 1.0000 ]	180.1% { 120.8% }			S2,

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 203667	(9.90, N/A) (N/A, 0.00, N/A)	483.9	N/A	1.4128 [ 1.0000 ]	141.3% { 97.4% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 155794	(10.14, N/A) (N/A, 0.00, N/A)	449.8	N/A	1.7211 [ 1.0000 ]	172.1% { 115.5% }			S2,
13C3_PFBs_EIS	(302.0 / 80.0) 686151	(6.12, N/A) (N/A, -0.02, N/A)	662.4	N/A	2.5736 [ 2.0000 ]	128.7% { 100.9% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 388702	(8.04, N/A) (N/A, -0.02, N/A)	721.5	N/A	2.5906 [ 2.0000 ]	129.5% { 103.0% }			
13C8_PFOS_EIS	(507.0 / 80.0) 570879	(9.48, N/A) (N/A, -0.01, N/A)	574.2	N/A	2.4426 [ 2.0000 ]	122.1% { 95.9% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 70019	(5.82, N/A) (N/A, -0.02, N/A)	516.1	N/A	4.4934 [ 4.0000 ]	112.3% { 93.6% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 96313	(7.56, N/A) (N/A, -0.01, N/A)	680.7	N/A	5.0551 [ 4.0000 ]	126.4% { 95.4% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 90193	(8.98, N/A) (N/A, -0.01, N/A)	295.4	N/A	4.7448 [ 4.0000 ]	118.6% { 93.0% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 903119	(10.18, N/A) (N/A, 0.01, N/A)	978.8	N/A	2.5546 [ 2.0000 ]	127.7% { 102.3% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 231818	(10.61, N/A) (N/A, 0.01, N/A)	1137.1	N/A	2.5546 [ 2.0000 ]	127.7% { 99.1% }			
D5_NEtFOsa_EIS	(531.1 / 169.0) 234416	(10.70, N/A) (N/A, 0.01, N/A)	1078.0	N/A	2.9774 [ 2.0000 ]	148.9% { 123.8% }			



Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 296006	(9.52, N/A) (N/A, -0.01, N/A)	264.8	N/A	5.3510 [ 4.0000 ]	133.8% { 116.6% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 278184	(9.69, N/A) (N/A, -0.01, N/A)	418.6	N/A	5.5576 [ 4.0000 ]	138.9% { 113.2% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 456921	(10.57, N/A) (N/A, 0.01, N/A)	1180.7	N/A	26.2647 [ 20.0000 ]	131.3% { 112.5% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 258780	(10.67, N/A) (N/A, 0.01, N/A)	1154.2	N/A	29.6865 [ 20.0000 ]	148.4% { 118.6% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 657508	(6.50, N/A) (N/A, -0.02, N/A)	1256.0	N/A	10.1765 [ 8.0000 ]	127.2% { 98.9% }			

## ANALYSIS SEQUENCE BLANKS

Laboratory: APPL, LLC  
 Client: AECOM  
 Sequence: SB03835  
 Calibration: 2251013

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

Lab Sample ID	Analyte	Found	Units	RL	C
SB03835-CCB4	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	0.00	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: SB03835  
 Calibration: 2251013

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

Lab Sample ID	Analyte	Found	Units	RL	C
SB03835-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	10.3	ng/mL		
	13C5-PFPEA	5.01	ng/mL		
	13C5-PFHXA	2.62	ng/mL		
	13C4-PFHPA	2.80	ng/mL		
	13C8-PFOA	2.64	ng/mL		
	13C9-PFNA	1.35	ng/mL		
	13C6-PFDA	1.26	ng/mL		
	13C7-PFUnA	1.43	ng/mL		
	13C2-PFDOA	1.27	ng/mL		
	13C2-PFTEDA	1.44	ng/mL		
	13C3-PFBS	2.34	ng/mL		
	13C3-PFHXS	2.57	ng/mL		
	13C8-PFOS	2.87	ng/mL		
	13C2-4:2FTS	4.81	ng/mL		
	13C2-6:2FTS	5.24	ng/mL		
	13C2-8:2FTS	5.09	ng/mL		
	13C8-PFOSA	2.64	ng/mL		
	D5-NETFOSA	3.05	ng/mL		
	D3-NMEFOSA	2.73	ng/mL		
	D3-NMEFOSAA	5.37	ng/mL		
	D5-NETFOSAA	5.18	ng/mL		
	D7-NMEFOSE	27.0	ng/mL		
	D9-NETFOSAE	29.5	ng/mL		
	13C3-HFPO-DA	10.2	ng/mL		



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03835-CCB4  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (39)  
 Acquired: 2022/12/14 - 19:24

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	(212.9 / 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	(262.9 / 219.0) N/A (262.9 / 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			
PFTrDA	(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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03835-CCB4  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (39)  
 Acquired: 2022/12/14 - 19:24

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	( 298.9 / 80.0 ) N/A ( 298.9 / 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	( 698.9 / 80.0 ) N/A ( 698.9 / 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			

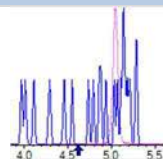
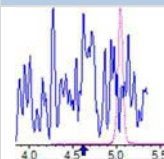
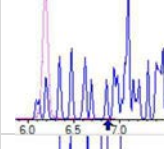
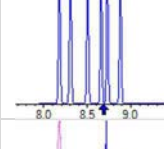
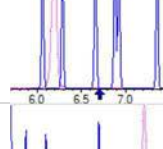
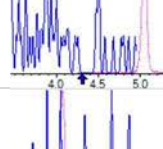
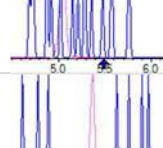
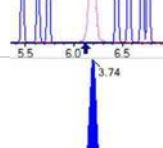
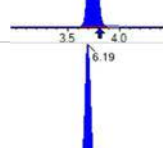
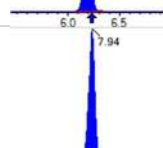


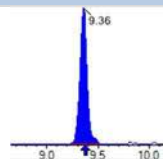
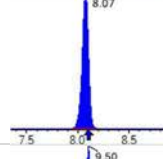
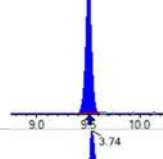
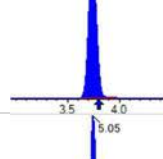
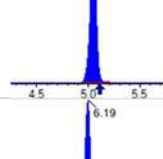
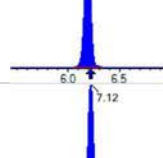
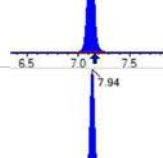
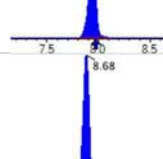
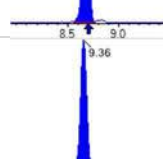
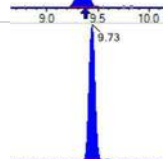

Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03835-CCB4  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

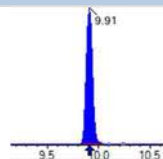
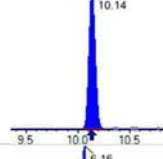
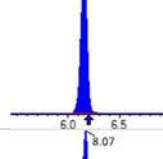
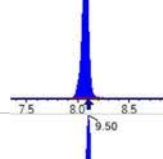
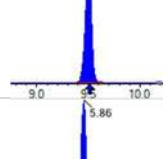
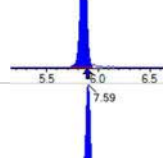
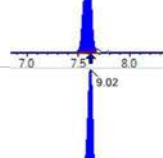
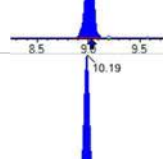
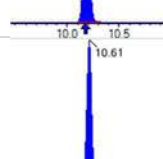
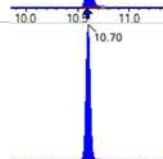
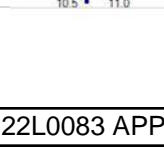
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 Path: S2022-12-14A (39)  
 Acquired: 2022/12/14 - 19:24

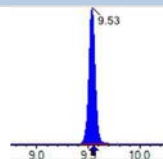
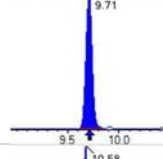
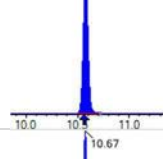
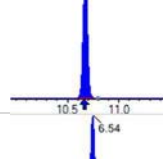
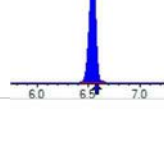
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(511.9 / 219.0) N/A (511.9 / 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) 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	(616.1 / 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			
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.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 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	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(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) 81038	(3.74, N/A) (N/A, 0.03, N/A)	588.6	N/A	0.6679 [ 1.0000 ]	66.8% { 84.2% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 122671	(6.19, N/A) (N/A, 0.02, N/A)	887.2	N/A	0.6722 [ 1.0000 ]	67.2% { 70.0% }			
13C4_PFOA_IIS	(417.0 / 372.0) 120808	(7.94, N/A) (N/A, 0.01, N/A)	466.7	N/A	0.6920 [ 1.0000 ]	69.2% { 83.3% }			
13C5_PFNA_IIS	(468.0 / 423.0) 90135	(8.68, N/A) (N/A, 0.01, N/A)	403.9	N/A	0.6633 [ 1.0000 ]	66.3% { 76.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 97340	(9.36, N/A) (N/A, 0.01, N/A)	223.7	N/A	0.7015 [ 1.0000 ]	70.2% { 74.3% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 225745	(8.07, N/A) (N/A, 0.01, N/A)	938.8	N/A	0.6995 [ 1.0000 ]	69.9% { 79.7% }			
13C4_PFOS_IIS	(502.8 / 79.9) 177978	(9.50, N/A) (N/A, 0.01, N/A)	479.0	N/A	0.7068 [ 1.0000 ]	70.7% { 69.9% }			
13C4_PFBA_EIS	(217.0 / 172.0) 637280	(3.74, N/A) (N/A, 0.03, N/A)	925.0	N/A	10.3166 [ 8.0000 ]	129.0% { 99.5% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 340278	(5.05, N/A) (N/A, 0.02, N/A)	650.5	N/A	5.0090 [ 4.0000 ]	125.2% { 104.2% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 270968	(6.19, N/A) (N/A, 0.02, N/A)	631.9	N/A	2.6210 [ 2.0000 ]	131.1% { 97.9% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 251658	(7.12, N/A) (N/A, 0.02, N/A)	706.4	N/A	2.8042 [ 2.0000 ]	140.2% { 108.3% }			
13C8_PFOA_EIS	(421.0 / 376.0) 244596	(7.94, N/A) (N/A, 0.02, N/A)	690.2	N/A	2.6404 [ 2.0000 ]	132.0% { 105.5% }			
13C9_PFNA_EIS	(472.0 / 427.0) 93911	(8.68, N/A) (N/A, 0.02, N/A)	239.1	N/A	1.3523 [ 1.0000 ]	135.2% { 91.3% }			
13C6_PFDA_EIS	(519.0 / 474.0) 117386	(9.36, N/A) (N/A, 0.01, N/A)	438.2	N/A	1.2574 [ 1.0000 ]	125.7% { 96.2% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 183031	(9.73, N/A) (N/A, 0.00, N/A)	434.7	N/A	1.4275 [ 1.0000 ]	142.8% { 104.8% }			



Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 200649	(9.91, N/A) (N/A, 0.00, N/A)	392.8	N/A	1.2726 [ 1.0000 ]	127.3% { 95.9% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 142155	(10.14, N/A) (N/A, 0.00, N/A)	275.6	N/A	1.4359 [ 1.0000 ]	143.6% { 105.4% }			
13C3_PFBs_EIS	(302.0 / 80.0) 608618	(6.16, N/A) (N/A, 0.01, N/A)	738.7	N/A	2.3431 [ 2.0000 ]	117.2% { 89.5% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 376036	(8.07, N/A) (N/A, 0.01, N/A)	909.4	N/A	2.5724 [ 2.0000 ]	128.6% { 99.6% }			
13C8_PFOS_EIS	(507.0 / 80.0) 635346	(9.50, N/A) (N/A, 0.01, N/A)	303.7	N/A	2.8672 [ 2.0000 ]	143.4% { 106.7% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 73030	(5.86, N/A) (N/A, 0.02, N/A)	476.9	N/A	4.8106 [ 4.0000 ]	120.3% { 97.6% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 97315	(7.59, N/A) (N/A, 0.02, N/A)	835.5	N/A	5.2428 [ 4.0000 ]	131.1% { 96.4% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 94227	(9.02, N/A) (N/A, 0.02, N/A)	393.6	N/A	5.0882 [ 4.0000 ]	127.2% { 97.1% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 884546	(10.19, N/A) (N/A, 0.01, N/A)	1227.7	N/A	2.6390 [ 2.0000 ]	131.9% { 100.2% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 234747	(10.61, N/A) (N/A, 0.01, N/A)	827.0	N/A	2.7284 [ 2.0000 ]	136.4% { 100.4% }			
D5_NEtFOsa_EIS	(531.1 / 169.0) 227508	(10.70, N/A) (N/A, 0.01, N/A)	1417.8	N/A	3.0478 [ 2.0000 ]	152.4% { 120.1% }			S2,

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 281518	(9.53, N/A) (N/A, 0.01, N/A)	409.5	N/A	5.3675 [ 4.0000 ]	134.2% { 110.9% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 245755	(9.71, N/A) (N/A, 0.01, N/A)	294.4	N/A	5.1783 [ 4.0000 ]	129.5% { 100.0% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 445534	(10.58, N/A) (N/A, 0.01, N/A)	743.3	N/A	27.0112 [ 20.0000 ]	135.1% { 109.7% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 243746	(10.67, N/A) (N/A, 0.01, N/A)	889.5	N/A	29.4915 [ 20.0000 ]	147.5% { 111.7% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 645502	(6.54, N/A) (N/A, 0.02, N/A)	894.1	N/A	10.1934 [ 8.0000 ]	127.4% { 97.1% }			

## ANALYSIS SEQUENCE BLANKS

Laboratory: APPL, LLC  
 Client: AECOM  
 Sequence: SB03835  
 Calibration: 2251013

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

Lab Sample ID	Analyte	Found	Units	RL	C
SB03835-CCB5	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	0.00	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	0.0115	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: SB03835  
 Calibration: 2251013

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

Lab Sample ID	Analyte	Found	Units	RL	C
SB03835-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	10.1	ng/mL		
	13C5-PFPEA	4.99	ng/mL		
	13C5-PFHXA	2.65	ng/mL		
	13C4-PFHPA	2.73	ng/mL		
	13C8-PFOA	2.61	ng/mL		
	13C9-PFNA	1.24	ng/mL		
	13C6-PFDA	1.26	ng/mL		
	13C7-PFUnA	1.37	ng/mL		
	13C2-PFDOA	1.45	ng/mL		
	13C2-PFTEDA	1.46	ng/mL		
	13C3-PFBS	2.60	ng/mL		
	13C3-PFHXS	2.24	ng/mL		
	13C8-PFOS	2.32	ng/mL		
	13C2-4:2FTS	4.42	ng/mL		
	13C2-6:2FTS	4.80	ng/mL		
	13C2-8:2FTS	5.10	ng/mL		
	13C8-PFOSA	2.54	ng/mL		
	D5-NETFOSA	2.94	ng/mL		
	D3-NMEFOSA	2.38	ng/mL		
	D3-NMEFOSAA	4.80	ng/mL		
	D5-NETFOSAA	5.30	ng/mL		
	D7-NMEFOSE	29.4	ng/mL		
	D9-NETFOSAE	28.5	ng/mL		
	13C3-HFPO-DA	11.2	ng/mL		



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03835-CCB5  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (54)  
 Acquired: 2022/12/14 - 22:34

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(212.9 / 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	(262.9 / 219.0) N/A (262.9 / 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			
PFTrDA	(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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03835-CCB5  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (54)  
 Acquired: 2022/12/14 - 22:34

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	( 298.9 / 80.0 ) N/A ( 298.9 / 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 ) 3572 ( 499.0 / 99.0 ) 546	( 9.50 , 1.00 ) ( -0.01 , N/A , -2.7 )	22.8 352.9	0.1529 66.6 60.0	0.0115	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	( 698.9 / 80.0 ) N/A ( 698.9 / 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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03835-CCB5  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (54)  
 Acquired: 2022/12/14 - 22:34

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 ) 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	( 511.9 / 219.0 ) N/A ( 511.9 / 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 ) 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	( 616.1 / 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			



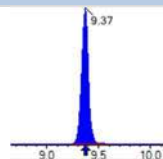
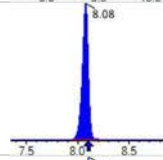
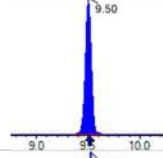
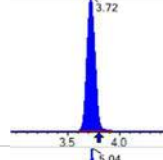
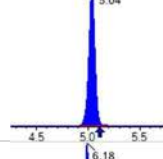
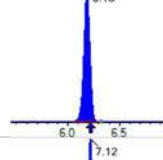
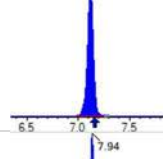
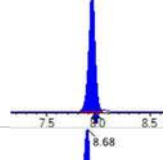
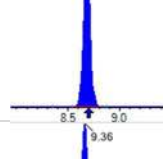
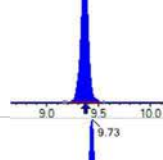
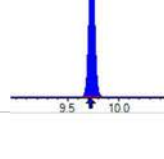
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

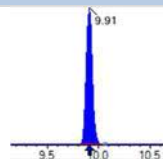
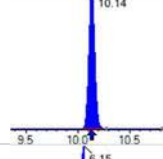
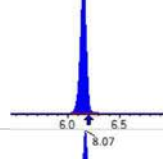
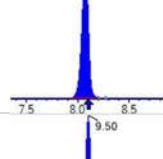
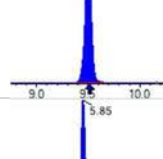
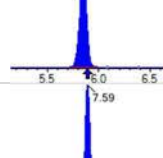
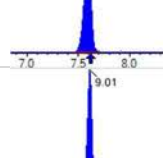
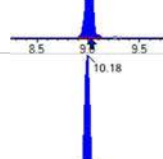
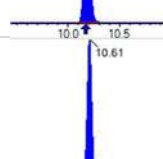
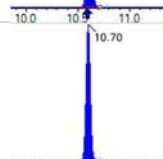

Sample I.D.: SB03835-CCB5  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

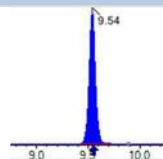
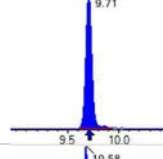
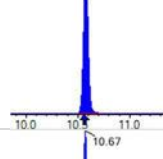
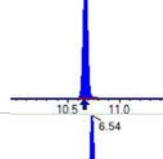
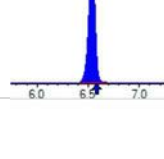
Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (54)  
 Acquired: 2022/12/14 - 22:34

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(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) 81554	(3.73, N/A) (N/A, 0.01, N/A)	808.4	N/A	0.6722 [ 1.0000 ]	67.2% { 84.7% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 124402	(6.18, N/A) (N/A, 0.01, N/A)	497.0	N/A	0.6817 [ 1.0000 ]	68.2% { 71.0% }			
13C4_PFOA_IIS	(417.0 / 372.0) 121074	(7.94, N/A) (N/A, 0.02, N/A)	614.6	N/A	0.6936 [ 1.0000 ]	69.4% { 83.5% }			
13C5_PFNA_IIS	(468.0 / 423.0) 99985	(8.68, N/A) (N/A, 0.01, N/A)	349.2	N/A	0.7358 [ 1.0000 ]	73.6% { 85.3% }			



Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 97189	(9.37, N/A) (N/A, 0.02, N/A)	547.3	N/A	0.7004 [ 1.0000 ]	70.0% { 74.2% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 248721	(8.08, N/A) (N/A, 0.02, N/A)	827.5	N/A	0.7707 [ 1.0000 ]	77.1% { 87.8% }			
13C4_PFOS_IIS	(502.8 / 79.9) 195660	(9.50, N/A) (N/A, 0.01, N/A)	437.7	N/A	0.7770 [ 1.0000 ]	77.7% { 76.9% }			
13C4_PFBA_EIS	(217.0 / 172.0) 624886	(3.72, N/A) (N/A, 0.01, N/A)	916.8	N/A	10.0520 [ 8.0000 ]	125.6% { 97.6% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 343667	(5.04, N/A) (N/A, 0.01, N/A)	810.7	N/A	4.9885 [ 4.0000 ]	124.7% { 105.2% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 277388	(6.18, N/A) (N/A, 0.01, N/A)	754.4	N/A	2.6458 [ 2.0000 ]	132.3% { 100.2% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 248177	(7.12, N/A) (N/A, 0.01, N/A)	480.7	N/A	2.7269 [ 2.0000 ]	136.3% { 106.8% }			
13C8_PFOA_EIS	(421.0 / 376.0) 242543	(7.94, N/A) (N/A, 0.02, N/A)	616.2	N/A	2.6125 [ 2.0000 ]	130.6% { 104.6% }			
13C9_PFNA_EIS	(472.0 / 427.0) 95770	(8.68, N/A) (N/A, 0.02, N/A)	437.8	N/A	1.2432 [ 1.0000 ]	124.3% { 93.1% }			
13C6_PFDA_EIS	(519.0 / 474.0) 117147	(9.36, N/A) (N/A, 0.01, N/A)	276.6	N/A	1.2568 [ 1.0000 ]	125.7% { 96.0% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 175805	(9.73, N/A) (N/A, 0.00, N/A)	446.9	N/A	1.3733 [ 1.0000 ]	137.3% { 100.6% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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) 228715	(9.91, N/A) (N/A, 0.00, N/A)	530.8	N/A	1.4528 [ 1.0000 ]	145.3% { 109.4% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 144497	(10.14, N/A) (N/A, 0.00, N/A)	496.2	N/A	1.4618 [ 1.0000 ]	146.2% { 107.1% }			
13C3_PFBs_EIS	(302.0 / 80.0) 743679	(6.15, N/A) (N/A, 0.01, N/A)	875.6	N/A	2.5986 [ 2.0000 ]	129.9% { 109.3% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 360020	(8.07, N/A) (N/A, 0.01, N/A)	843.8	N/A	2.2354 [ 2.0000 ]	111.8% { 95.4% }			
13C8_PFOS_EIS	(507.0 / 80.0) 564546	(9.50, N/A) (N/A, 0.01, N/A)	490.7	N/A	2.3174 [ 2.0000 ]	115.9% { 94.8% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 73987	(5.85, N/A) (N/A, 0.01, N/A)	475.2	N/A	4.4234 [ 4.0000 ]	110.6% { 98.9% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 98160	(7.59, N/A) (N/A, 0.02, N/A)	696.0	N/A	4.7998 [ 4.0000 ]	120.0% { 97.3% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 104138	(9.01, N/A) (N/A, 0.02, N/A)	433.3	N/A	5.1039 [ 4.0000 ]	127.6% { 107.4% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 934647	(10.18, N/A) (N/A, 0.01, N/A)	921.5	N/A	2.5365 [ 2.0000 ]	126.8% { 105.8% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 225299	(10.61, N/A) (N/A, 0.01, N/A)	711.5	N/A	2.3820 [ 2.0000 ]	119.1% { 96.3% }			
D5_NeIFOSA_EIS	(531.1 / 169.0) 241321	(10.70, N/A) (N/A, 0.01, N/A)	1349.3	N/A	2.9407 [ 2.0000 ]	147.0% { 127.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 276862	(9.54, N/A) (N/A, 0.01, N/A)	432.3	N/A	4.8017 [ 4.0000 ]	120.0% { 109.1% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 276650	(9.71, N/A) (N/A, 0.01, N/A)	214.9	N/A	5.3025 [ 4.0000 ]	132.6% { 112.6% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 533985	(10.58, N/A) (N/A, 0.01, N/A)	1055.0	N/A	29.4480 [ 20.0000 ]	147.2% { 131.5% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 259014	(10.67, N/A) (N/A, 0.01, N/A)	1091.8	N/A	28.5067 [ 20.0000 ]	142.5% { 118.7% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 721741	(6.54, N/A) (N/A, 0.01, N/A)	1025.5	N/A	11.2387 [ 8.0000 ]	140.5% { 108.6% }			

## ANALYSIS SEQUENCE BLANKS

Laboratory: APPL, LLC  
 Client: AECOM  
 Sequence: SB03856  
 Calibration: 2251019

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

Lab Sample ID	Analyte	Found	Units	RL	C
SB03856-ICB1	PFBA	0.00	ng/mL	0.75	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	0.00	ng/mL	0.10	U
	PFNA	0.00	ng/mL	0.10	U
	PFDA	0.00	ng/mL	0.10	U
	PFUnA	0.0155	ng/mL	0.10	U
	PFDOA	0.00	ng/mL	0.10	U
	PFTRDA	0.00	ng/mL	0.10	U
	PFTEDA	0.0246	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	0.0163	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	0.0182	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	0.0904	ng/mL	0.40	U
	NEtFOSE	0.0812	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: SB03856  
 Calibration: 2251019

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

Lab Sample ID	Analyte	Found	Units	RL	C
SB03856-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	8.52	ng/mL		
	13C5-PFPEA	4.06	ng/mL		
	13C5-PFHXA	2.10	ng/mL		
	13C4-PFHPA	1.97	ng/mL		
	13C8-PFOA	2.24	ng/mL		
	13C9-PFNA	1.23	ng/mL		
	13C6-PFDA	0.983	ng/mL		
	13C7-PFUnA	1.03	ng/mL		
	13C2-PFDOA	0.958	ng/mL		
	13C2-PFTEDA	1.06	ng/mL		
	13C3-PFBS	2.26	ng/mL		
	13C3-PFHXS	2.33	ng/mL		
	13C8-PFOS	2.14	ng/mL		
	13C2-4:2FTS	4.06	ng/mL		
	13C2-6:2FTS	4.52	ng/mL		
	13C2-8:2FTS	4.26	ng/mL		
	13C8-PFOSA	2.41	ng/mL		
	D5-NETFOSA	2.65	ng/mL		
	D3-NMEFOSA	2.37	ng/mL		
	D3-NMEFOSAA	4.58	ng/mL		
	D5-NETFOSAA	5.61	ng/mL		
	D7-NMEFOSE	25.1	ng/mL		
	D9-NETFOSAE	25.3	ng/mL		
	13C3-HFPO-DA	8.83	ng/mL		



Chemist: DAG  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03856-ICB1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - 2022-12-15A  
 Path: S2022-12-15A (9)  
 Acquired: 2022/12/15 - 14:15

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min] , R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(212.9 / 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	(262.9 / 219.0) N/A (262.9 / 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) 2368 (563.0 / 169.0) 265	(9.71, 1.00) (-0.01, N/A, 1.3)	11.9 355.1	0.1121 100.1 100.1	0.0155	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			
PFTrDA	(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) 3421 (713.0 / 169.0) 1579	(10.14, 1.00) (0.01, N/A, 0.2)	23.3 154.7	0.4614 203.3 203.3	0.0246	N/A			IR2,



Chemist: DAG  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03856-ICB1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - 2022-12-15A  
 Path: S2022-12-15A (9)  
 Acquired: 2022/12/15 - 14:15

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	( 298.9 / 80.0 ) N/A ( 298.9 / 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 ) 5322 ( 499.0 / 99.0 ) 2218	( 9.45 , 1.00 ) ( -0.01 , N/A , -2.2 )	21.2 13.6	0.4168 182.4 182.4	0.0163	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	( 698.9 / 80.0 ) N/A ( 698.9 / 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			



Chemist: DAG  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03856-ICB1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - 2022-12-15A  
 Path: S2022-12-15A (9)  
 Acquired: 2022/12/15 - 14:15

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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 ) 8813 ( 498.0 / 478.0 ) N/A	( 10.16 , 1.00 ) ( -0.02 , N/A , #Value! )	25.1 N/A	N/A 0.0 0.0	0.0182	N/A			
NMeFOSA	( 511.9 / 219.0 ) N/A ( 511.9 / 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	( 616.1 / 59.0 ) 2788	( 10.58 , 1.00 ) ( 0.01 , N/A , 0.0 )	32.7	N/A 0.0 0.0	0.0904	N/A			
NEIFOSE	( 630.0 / 59.0 ) 679	( 10.68 , 1.00 ) ( 0.01 , N/A , 0.0 )	20.6	N/A 0.0 0.0	0.0812	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			



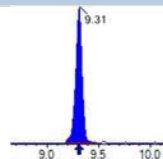
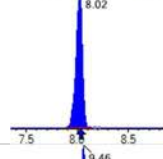
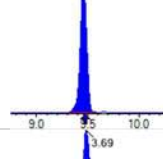
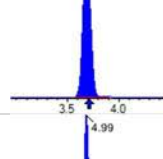
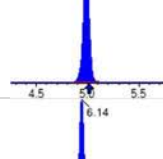
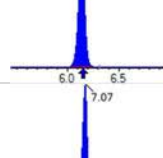
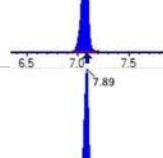
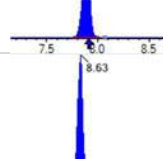
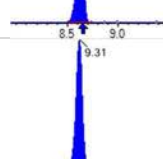
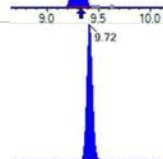



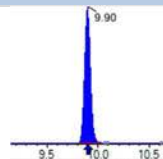
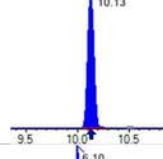
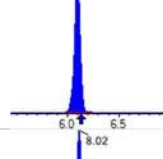
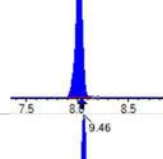
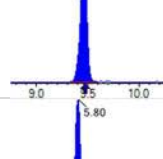
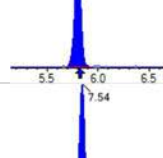
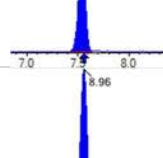
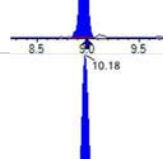
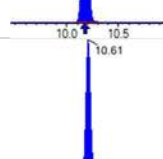
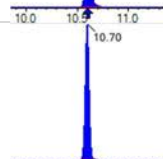

Chemist: DAG  
 Instrument: Saphira  
 Type: Sciex Q3 5500

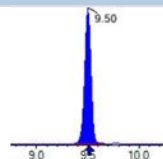
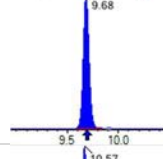
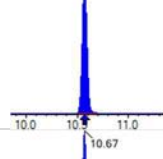
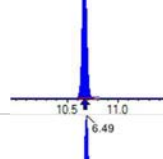
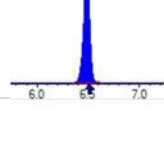
Sample I.D.: SB03856-ICB1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - 2022-12-15A  
 Path: S2022-12-15A (9)  
 Acquired: 2022/12/15 - 14:15

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(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) 79325	(3.69, N/A) (N/A, -0.02, N/A)	625.0	N/A	0.9073 [ 1.0000 ]	90.7% { 86.0% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 123371	(6.14, N/A) (N/A, -0.02, N/A)	481.2	N/A	0.9376 [ 1.0000 ]	93.8% { 98.0% }			
13C4_PFOA_IIS	(417.0 / 372.0) 107121	(7.89, N/A) (N/A, -0.02, N/A)	429.8	N/A	0.8558 [ 1.0000 ]	85.6% { 84.2% }			
13C5_PFNxA_IIS	(468.0 / 423.0) 79969	(8.62, N/A) (N/A, -0.02, N/A)	329.4	N/A	0.8012 [ 1.0000 ]	80.1% { 72.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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	(515.1 / 470.1) 102447	(9.31, N/A) (N/A, -0.01, N/A)	292.7	N/A	0.9879 [ 1.0000 ]	98.8% { 104.3% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 204239	(8.02, N/A) (N/A, -0.02, N/A)	592.8	N/A	0.8633 [ 1.0000 ]	86.3% { 80.8% }			
13C4_PFOS_IIS	(502.8 / 79.9) 168317	(9.46, N/A) (N/A, -0.02, N/A)	420.6	N/A	0.8390 [ 1.0000 ]	83.9% { 76.2% }			
13C4_PFBA_EIS	(217.0 / 172.0) 700019	(3.69, N/A) (N/A, -0.02, N/A)	779.8	N/A	8.5236 [ 8.0000 ]	106.5% { 96.6% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 368858	(4.99, N/A) (N/A, -0.03, N/A)	810.4	N/A	4.0611 [ 4.0000 ]	101.5% { 97.7% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 305353	(6.14, N/A) (N/A, -0.02, N/A)	766.5	N/A	2.1025 [ 2.0000 ]	105.1% { 100.7% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 253262	(7.07, N/A) (N/A, -0.03, N/A)	692.2	N/A	1.9738 [ 2.0000 ]	98.7% { 92.4% }			
13C8_PFOA_EIS	(421.0 / 376.0) 264665	(7.89, N/A) (N/A, -0.02, N/A)	517.1	N/A	2.2359 [ 2.0000 ]	111.8% { 104.5% }			
13C9_PFNA_EIS	(472.0 / 427.0) 107397	(8.63, N/A) (N/A, -0.02, N/A)	488.4	N/A	1.2295 [ 1.0000 ]	122.9% { 102.7% }			
13C6_PFDA_EIS	(519.0 / 474.0) 136506	(9.31, N/A) (N/A, -0.02, N/A)	345.5	N/A	0.9833 [ 1.0000 ]	98.3% { 95.7% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 205614	(9.72, N/A) (N/A, 0.00, N/A)	807.0	N/A	1.0287 [ 1.0000 ]	102.9% { 109.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 215918	(9.90, N/A) (N/A, 0.00, N/A)	349.4	N/A	0.9579 [ 1.0000 ]	95.8% { 100.1% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 145042	(10.13, N/A) (N/A, 0.00, N/A)	329.7	N/A	1.0587 [ 1.0000 ]	105.9% { 119.9% }			
13C3_PFBs_EIS	(302.0 / 80.0) 752754	(6.10, N/A) (N/A, -0.03, N/A)	956.2	N/A	2.2567 [ 2.0000 ]	112.8% { 99.2% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 403724	(8.02, N/A) (N/A, -0.02, N/A)	759.9	N/A	2.3339 [ 2.0000 ]	116.7% { 104.8% }			
13C8_PFOS_EIS	(507.0 / 80.0) 592394	(9.46, N/A) (N/A, -0.01, N/A)	322.3	N/A	2.1425 [ 2.0000 ]	107.1% { 88.7% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 76281	(5.80, N/A) (N/A, -0.03, N/A)	483.1	N/A	4.0556 [ 4.0000 ]	101.4% { 86.5% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 109033	(7.54, N/A) (N/A, -0.02, N/A)	520.1	N/A	4.5234 [ 4.0000 ]	113.1% { 102.1% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 92104	(8.96, N/A) (N/A, -0.03, N/A)	286.5	N/A	4.2622 [ 4.0000 ]	106.6% { 97.5% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 971045	(10.18, N/A) (N/A, 0.00, N/A)	717.2	N/A	2.4132 [ 2.0000 ]	120.7% { 99.8% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 237698	(10.61, N/A) (N/A, 0.00, N/A)	943.5	N/A	2.3712 [ 2.0000 ]	118.6% { 99.0% }			
D5_NeIFOSA_EIS	(531.1 / 169.0) 247829	(10.70, N/A) (N/A, 0.00, N/A)	1028.3	N/A	2.6475 [ 2.0000 ]	132.4% { 107.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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 ) 296955	( 9.50 , N/A ) ( N/A , -0.02 , N/A )	366.2	N/A	4.5785 [ 4.0000 ]	114.5% { 104.2% }			
D5_EtFOSAA_EIS	( 589.0 / 419.0 ) 302168	( 9.68 , N/A ) ( N/A , -0.01 , N/A )	431.7	N/A	5.6058 [ 4.0000 ]	140.1% { 118.0% }			
D7_NMeFOSE_EIS	( 623.2 / 58.9 ) 484298	( 10.57 , N/A ) ( N/A , 0.00 , N/A )	859.4	N/A	25.1152 [ 20.0000 ]	125.6% { 96.7% }			
D9_NEtFOSE_EIS	( 639.2 / 58.9 ) 262232	( 10.67 , N/A ) ( N/A , 0.00 , N/A )	1242.2	N/A	25.2539 [ 20.0000 ]	126.3% { 99.0% }			
13C3_HFPODA_EIS	( 287.0 / 169.0 ) 780707	( 6.49 , N/A ) ( N/A , -0.02 , N/A )	898.1	N/A	8.8290 [ 8.0000 ]	110.4% { 105.0% }			

## ANALYSIS SEQUENCE BLANKS

Laboratory: APPL, LLC  
 Client: AECOM  
 Sequence: SB03903  
 Calibration: 2251019

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

Lab Sample ID	Analyte	Found	Units	RL	C
SB03903-CCB1	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	0.00	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: SB03903  
 Calibration: 2251019

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

Lab Sample ID	Analyte	Found	Units	RL	C
SB03903-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	7.68	ng/mL		
	13C5-PFPEA	4.04	ng/mL		
	13C5-PFHXA	1.89	ng/mL		
	13C4-PFHPA	1.87	ng/mL		
	13C8-PFOA	1.79	ng/mL		
	13C9-PFNA	0.944	ng/mL		
	13C6-PFDA	1.03	ng/mL		
	13C7-PFUnA	0.941	ng/mL		
	13C2-PFDOA	0.909	ng/mL		
	13C2-PFTEDA	0.866	ng/mL		
	13C3-PFBS	2.10	ng/mL		
	13C3-PFHXS	2.06	ng/mL		
	13C8-PFOS	1.88	ng/mL		
	13C2-4:2FTS	4.45	ng/mL		
	13C2-6:2FTS	4.26	ng/mL		
	13C2-8:2FTS	4.82	ng/mL		
	13C8-PFOSA	1.85	ng/mL		
	D5-NETFOSA	1.94	ng/mL		
	D3-NMEFOSA	1.72	ng/mL		
	D3-NMEFOSAA	3.80	ng/mL		
	D5-NETFOSAA	4.08	ng/mL		
	D7-NMEFOSE	19.4	ng/mL		
	D9-NETFOSAE	18.4	ng/mL		
	13C3-HFPO-DA	8.11	ng/mL		



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03903-CCB1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (1)  
 Acquired: 2022/12/20 - 09:40

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	(212.9 / 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	(262.9 / 219.0) N/A (262.9 / 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			
PFTrDA	(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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03903-CCB1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (1)  
 Acquired: 2022/12/20 - 09:40

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	(298.9 / 80.0) N/A (298.9 / 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	(698.9 / 80.0) N/A (698.9 / 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			



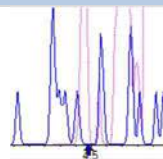
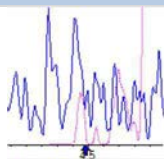
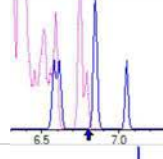
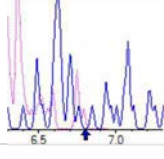
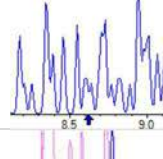
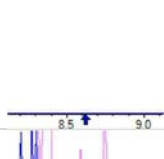
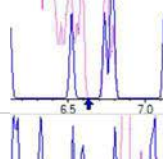
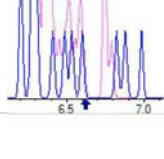
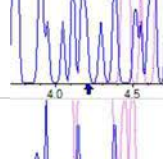
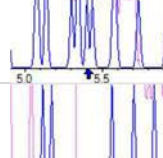
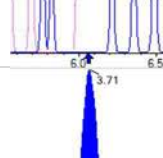
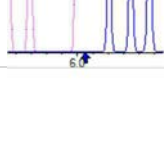
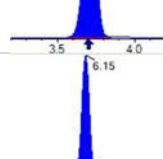
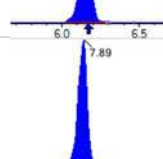
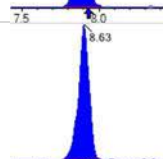



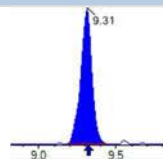
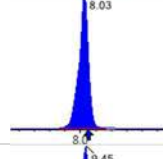
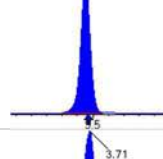
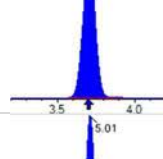
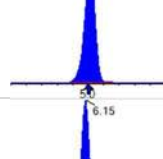
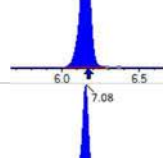
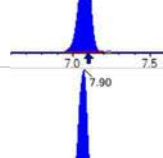
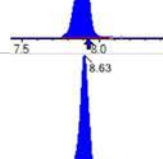
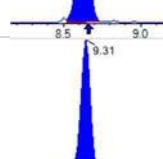
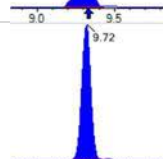
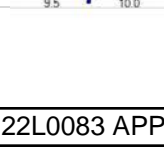
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

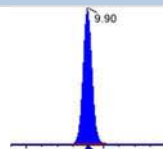
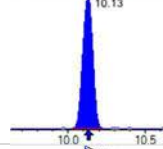
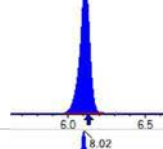
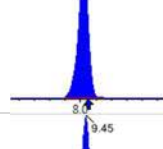
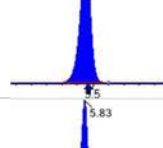
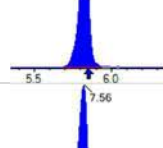
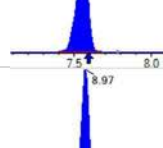
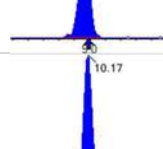
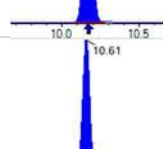
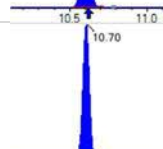

Sample I.D.: SB03903-CCB1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

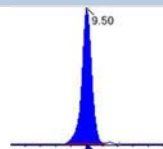
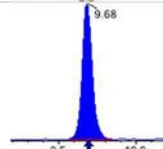
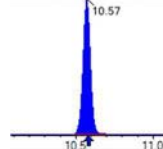
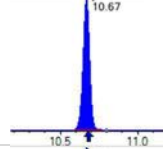
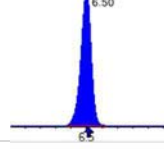
Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (1)  
 Acquired: 2022/12/20 - 09:40

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	(511.9 / 219.0) N/A (511.9 / 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) 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	(616.1 / 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			
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.) ( $\Delta$ RT-Imin, $\Delta$ RT-CVmin, $\Delta$ 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) 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	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(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) 73016	(3.71, N/A) (N/A, 0.01, N/A)	602.1	N/A	0.8351 [ 1.0000 ]	83.5% { 101.7% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 114135	(6.15, N/A) (N/A, -0.02, N/A)	569.7	N/A	0.8674 [ 1.0000 ]	86.7% { 97.7% }			
13C4_PFOA_IIS	(417.0 / 372.0) 103024	(7.89, N/A) (N/A, -0.03, N/A)	537.3	N/A	0.8231 [ 1.0000 ]	82.3% { 102.1% }			
13C5_PFNA_IIS	(468.0 / 423.0) 84856	(8.63, N/A) (N/A, -0.02, N/A)	351.4	N/A	0.8501 [ 1.0000 ]	85.0% { 87.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-Imin, $\Delta$ RT-CVmin, $\Delta$ 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	(515.1 / 470.1) 84405	(9.31, N/A) (N/A, -0.01, N/A)	222.6	N/A	0.8139 [1.0000]	81.4% {123.2%}			
18O2_PFHxS_IIS	(403.0 / 83.9) 190684	(8.03, N/A) (N/A, -0.03, N/A)	673.5	N/A	0.8060 [1.0000]	80.6% {90.3%}			
13C4_PFOS_IIS	(502.8 / 79.9) 166756	(9.45, N/A) (N/A, -0.02, N/A)	399.6	N/A	0.8312 [1.0000]	83.1% {104.8%}			
13C4_PFBA_EIS	(217.0 / 172.0) 580201	(3.71, N/A) (N/A, 0.01, N/A)	821.1	N/A	7.6751 [8.0000]	95.9% {102.0%}			
13C5_PFPeA_EIS	(267.9 / 223.0) 339806	(5.01, N/A) (N/A, 0.01, N/A)	691.9	N/A	4.0440 [4.0000]	101.1% {104.6%}			
13C5_PFHxA_EIS	(318.0 / 273.0) 253749	(6.15, N/A) (N/A, -0.02, N/A)	585.3	N/A	1.8886 [2.0000]	94.4% {106.3%}			
13C4_PFHpA_EIS	(367.0 / 322.0) 221973	(7.08, N/A) (N/A, -0.02, N/A)	671.5	N/A	1.8699 [2.0000]	93.5% {100.4%}			
13C8_PFOA_EIS	(421.0 / 376.0) 203984	(7.90, N/A) (N/A, -0.03, N/A)	644.0	N/A	1.7918 [2.0000]	89.6% {88.8%}			
13C9_PFNA_EIS	(472.0 / 427.0) 87532	(8.63, N/A) (N/A, -0.02, N/A)	275.2	N/A	0.9444 [1.0000]	94.4% {106.6%}			
13C6_PFDA_EIS	(519.0 / 474.0) 118214	(9.31, N/A) (N/A, -0.02, N/A)	370.6	N/A	1.0336 [1.0000]	103.4% {109.4%}			
13C7_PFUnA_EIS	(570.0 / 525.0) 155027	(9.72, N/A) (N/A, -0.01, N/A)	374.2	N/A	0.9414 [1.0000]	94.1% {102.2%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-Imin, $\Delta$ RT-CVmin, $\Delta$ 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) 168877	(9.90, N/A) (N/A, 0.00, N/A)	441.0	N/A	0.9093 [1.0000]	90.9% {92.7%}			
13C2_PFTeDA_EIS	(715.0 / 670.0) 97804	(10.13, N/A) (N/A, 0.00, N/A)	271.1	N/A	0.8665 [1.0000]	86.6% {86.8%}			
13C3_PFBs_EIS	(302.0 / 80.0) 652551	(6.11, N/A) (N/A, -0.02, N/A)	659.7	N/A	2.0954 [2.0000]	104.8% {98.6%}			
13C3_PFHxS_EIS	(402.0 / 80.0) 333455	(8.02, N/A) (N/A, -0.03, N/A)	777.1	N/A	2.0647 [2.0000]	103.2% {97.1%}			
13C8_PFOS_EIS	(507.0 / 80.0) 513959	(9.45, N/A) (N/A, -0.01, N/A)	476.7	N/A	1.8763 [2.0000]	93.8% {93.5%}			
13C2_4:2FTS_EIS	(329.0 / 81.0) 78111	(5.83, N/A) (N/A, -0.02, N/A)	468.6	N/A	4.4481 [4.0000]	111.2% {92.7%}			
13C2_6:2FTS_EIS	(429.0 / 81.0) 95773	(7.56, N/A) (N/A, -0.03, N/A)	550.2	N/A	4.2558 [4.0000]	106.4% {107.7%}			
13C2_8:2FTS_EIS	(529.0 / 81.0) 97194	(8.97, N/A) (N/A, -0.02, N/A)	459.2	N/A	4.8174 [4.0000]	120.4% {110.4%}			
13C8_PFOsa_EIS	(506.0 / 78.0) 738801	(10.17, N/A) (N/A, -0.01, N/A)	511.0	N/A	1.8532 [2.0000]	92.7% {88.6%}			
D3_NMeFOSA_EIS	(515.0 / 169.0) 170971	(10.61, N/A) (N/A, -0.01, N/A)	877.9	N/A	1.7215 [2.0000]	86.1% {83.9%}			
D5_NEiFOSA_EIS	(531.1 / 169.0) 179819	(10.70, N/A) (N/A, -0.01, N/A)	1224.8	N/A	1.9390 [2.0000]	96.9% {97.3%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-Imin, $\Delta$ RT-CVmin, $\Delta$ 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) 244454	(9.50, N/A) (N/A, -0.01, N/A)	390.4	N/A	3.8044 [4.0000]	95.1% {103.7%}			
D5_EtFOSAA_EIS	(589.0 / 419.0) 217848	(9.68, N/A) (N/A, -0.01, N/A)	267.7	N/A	4.0793 [4.0000]	102.0% {97.3%}			
D7_NMeFOSE_EIS	(623.2 / 58.9) 370086	(10.57, N/A) (N/A, -0.01, N/A)	971.7	N/A	19.3720 [20.0000]	96.9% {108.1%}			
D9_NEtFOSE_EIS	(639.2 / 58.9) 189115	(10.67, N/A) (N/A, -0.01, N/A)	1192.2	N/A	18.3829 [20.0000]	91.9% {95.3%}			
13C3_HFPODA_EIS	(287.0 / 169.0) 663358	(6.50, N/A) (N/A, -0.02, N/A)	1024.2	N/A	8.1090 [8.0000]	101.4% {101.4%}			

## ANALYSIS SEQUENCE BLANKS

Laboratory: APPL, LLC  
 Client: AECOM  
 Sequence: SB03903  
 Calibration: 2251019

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

Lab Sample ID	Analyte	Found	Units	RL	C
SB03903-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	0.00	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: SB03903  
 Calibration: 2251019

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

Lab Sample ID	Analyte	Found	Units	RL	C
SB03903-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	7.69	ng/mL		
	13C5-PFPEA	4.24	ng/mL		
	13C5-PFHXA	2.04	ng/mL		
	13C4-PFHPA	2.05	ng/mL		
	13C8-PFOA	2.13	ng/mL		
	13C9-PFNA	0.910	ng/mL		
	13C6-PFDA	1.11	ng/mL		
	13C7-PFUnA	0.906	ng/mL		
	13C2-PFDOA	0.906	ng/mL		
	13C2-PFTEDA	0.969	ng/mL		
	13C3-PFBS	2.18	ng/mL		
	13C3-PFHXS	2.09	ng/mL		
	13C8-PFOS	2.27	ng/mL		
	13C2-4:2FTS	5.05	ng/mL		
	13C2-6:2FTS	4.02	ng/mL		
	13C2-8:2FTS	4.25	ng/mL		
	13C8-PFOSA	2.09	ng/mL		
	D5-NETFOSA	2.19	ng/mL		
	D3-NMEFOSA	2.23	ng/mL		
	D3-NMEFOSAA	4.03	ng/mL		
	D5-NETFOSAA	4.63	ng/mL		
	D7-NMEFOSE	22.4	ng/mL		
	D9-NETFOSAE	18.8	ng/mL		
	13C3-HFPO-DA	8.41	ng/mL		



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03903-CCB2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (4)  
 Acquired: 2022/12/20 - 10:43

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	(212.9 / 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	(262.9 / 219.0) N/A (262.9 / 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			
PFTrDA	(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			





Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03903-CCB2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (4)  
 Acquired: 2022/12/20 - 10:43

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	( 298.9 / 80.0 ) N/A ( 298.9 / 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	( 698.9 / 80.0 ) N/A ( 698.9 / 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			

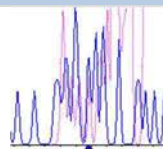
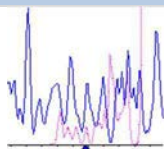
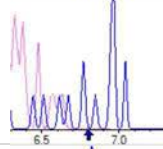
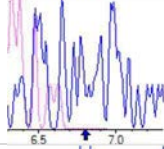
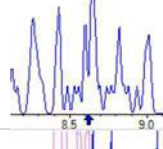
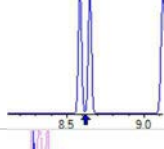
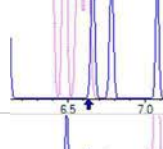
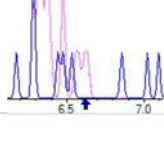
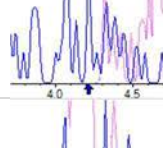
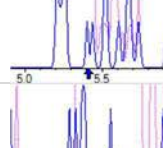
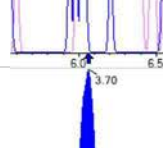
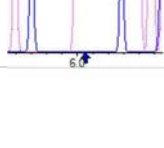
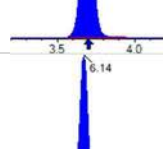
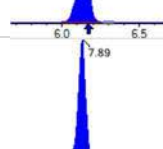
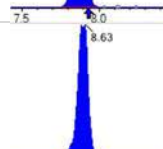



Chemist: ABK  
Instrument: Saphira  
Type: Sciex Q3 5500

Sample I.D.: SB03903-CCB2  
DF, IV: 1, 10.0µL  
Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
Path: S2022-12-20A (4)  
Acquired: 2022/12/20 - 10:43

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 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	(511.9 / 219.0) N/A (511.9 / 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) 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	(616.1 / 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			
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.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 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	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(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) 81338	(3.70, N/A) (N/A, 0.00, N/A)	613.7	N/A	0.9303 [ 1.0000 ]	93.0% { 113.3% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 111867	(6.14, N/A) (N/A, -0.03, N/A)	441.1	N/A	0.8502 [ 1.0000 ]	85.0% { 95.7% }			
13C4_PFOA_IIS	(417.0 / 372.0) 104478	(7.89, N/A) (N/A, -0.04, N/A)	663.8	N/A	0.8347 [ 1.0000 ]	83.5% { 103.6% }			
13C5_PFNA_IIS	(468.0 / 423.0) 89495	(8.63, N/A) (N/A, -0.03, N/A)	179.2	N/A	0.8966 [ 1.0000 ]	89.7% { 92.1% }			

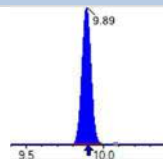
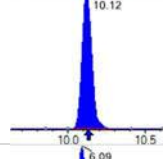
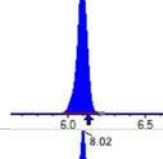
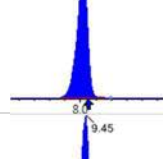
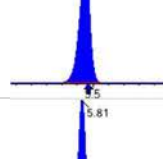
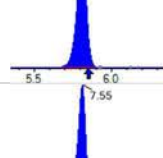
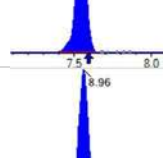
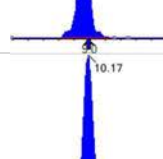
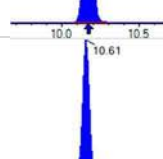
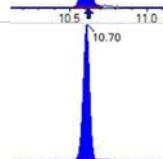



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03903-CCB2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (4)  
 Acquired: 2022/12/20 - 10:43

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	(515.1 / 470.1) 88040	(9.31, N/A) (N/A, -0.01, N/A)	273.5	N/A	0.8490 [ 1.0000 ]	84.9% { 128.6% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 198404	(8.01, N/A) (N/A, -0.04, N/A)	635.9	N/A	0.8386 [ 1.0000 ]	83.9% { 94.0% }			
13C4_PFOS_IIS	(502.8 / 79.9) 152039	(9.46, N/A) (N/A, -0.01, N/A)	362.3	N/A	0.7578 [ 1.0000 ]	75.8% { 95.6% }			
13C4_PFBA_EIS	(217.0 / 172.0) 647261	(3.69, N/A) (N/A, -0.01, N/A)	867.8	N/A	7.6862 [ 8.0000 ]	96.1% { 113.7% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 349069	(4.99, N/A) (N/A, -0.01, N/A)	691.2	N/A	4.2384 [ 4.0000 ]	106.0% { 107.4% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 269251	(6.14, N/A) (N/A, -0.03, N/A)	714.9	N/A	2.0446 [ 2.0000 ]	102.2% { 112.8% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 238179	(7.07, N/A) (N/A, -0.03, N/A)	638.1	N/A	2.0471 [ 2.0000 ]	102.4% { 107.7% }			
13C8_PFOA_EIS	(421.0 / 376.0) 245621	(7.89, N/A) (N/A, -0.04, N/A)	672.5	N/A	2.1276 [ 2.0000 ]	106.4% { 106.9% }			
13C9_PFNA_EIS	(472.0 / 427.0) 88976	(8.63, N/A) (N/A, -0.03, N/A)	382.1	N/A	0.9102 [ 1.0000 ]	91.0% { 108.4% }			
13C6_PFDA_EIS	(519.0 / 474.0) 132262	(9.31, N/A) (N/A, -0.03, N/A)	315.7	N/A	1.1087 [ 1.0000 ]	110.9% { 122.4% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 155672	(9.71, N/A) (N/A, -0.01, N/A)	252.9	N/A	0.9063 [ 1.0000 ]	90.6% { 102.6% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 175540	(9.89, N/A) (N/A, -0.01, N/A)	756.0	N/A	0.9062 [ 1.0000 ]	90.6% { 96.4% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 114132	(10.12, N/A) (N/A, -0.01, N/A)	372.9	N/A	0.9694 [ 1.0000 ]	96.9% { 101.3% }			
13C3_PFBs_EIS	(302.0 / 80.0) 704812	(6.09, N/A) (N/A, -0.04, N/A)	646.4	N/A	2.1751 [ 2.0000 ]	108.8% { 106.5% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 350759	(8.02, N/A) (N/A, -0.04, N/A)	687.3	N/A	2.0873 [ 2.0000 ]	104.4% { 102.1% }			
13C8_PFOS_EIS	(507.0 / 80.0) 567298	(9.45, N/A) (N/A, -0.02, N/A)	573.7	N/A	2.2714 [ 2.0000 ]	113.6% { 103.2% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 92310	(5.81, N/A) (N/A, -0.03, N/A)	536.0	N/A	5.0522 [ 4.0000 ]	126.3% { 109.5% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 94034	(7.55, N/A) (N/A, -0.04, N/A)	640.0	N/A	4.0159 [ 4.0000 ]	100.4% { 105.7% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 89192	(8.96, N/A) (N/A, -0.03, N/A)	326.9	N/A	4.2488 [ 4.0000 ]	106.2% { 101.4% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 760755	(10.17, N/A) (N/A, -0.01, N/A)	886.8	N/A	2.0930 [ 2.0000 ]	104.6% { 91.2% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 202035	(10.61, N/A) (N/A, -0.01, N/A)	812.3	N/A	2.2312 [ 2.0000 ]	111.6% { 99.1% }			
D5_NEtFOSA_EIS	(531.1 / 169.0) 185266	(10.70, N/A) (N/A, -0.01, N/A)	997.3	N/A	2.1911 [ 2.0000 ]	109.6% { 100.3% }			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03903-CCB2  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (4)  
 Acquired: 2022/12/20 - 10:43

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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) 236246	(9.49, N/A) (N/A, -0.02, N/A)	296.8	N/A	4.0325 [ 4.0000 ]	100.8% { 100.3% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 225660	(9.68, N/A) (N/A, -0.01, N/A)	332.8	N/A	4.6346 [ 4.0000 ]	115.9% { 100.8% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 389591	(10.57, N/A) (N/A, -0.01, N/A)	783.8	N/A	22.3670 [ 20.0000 ]	111.8% { 113.8% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 176627	(10.67, N/A) (N/A, -0.01, N/A)	1160.0	N/A	18.8310 [ 20.0000 ]	94.2% { 89.0% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 674379	(6.49, N/A) (N/A, -0.03, N/A)	751.5	N/A	8.4109 [ 8.0000 ]	105.1% { 103.1% }			

## ANALYSIS SEQUENCE BLANKS

Laboratory: APPL, LLC  
 Client: AECOM  
 Sequence: SB03903  
 Calibration: 2251019

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

Lab Sample ID	Analyte	Found	Units	RL	C
SB03903-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	0.00	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: SB03903  
 Calibration: 2251019

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

Lab Sample ID	Analyte	Found	Units	RL	C
SB03903-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	7.87	ng/mL		
	13C5-PFPEA	3.88	ng/mL		
	13C5-PFHXA	1.96	ng/mL		
	13C4-PFHPA	1.94	ng/mL		
	13C8-PFOA	1.85	ng/mL		
	13C9-PFNA	1.00	ng/mL		
	13C6-PFDA	1.13	ng/mL		
	13C7-PFUnA	1.18	ng/mL		
	13C2-PFDOA	1.23	ng/mL		
	13C2-PFTEDA	1.03	ng/mL		
	13C3-PFBS	2.12	ng/mL		
	13C3-PFHXS	2.19	ng/mL		
	13C8-PFOS	2.34	ng/mL		
	13C2-4:2FTS	4.56	ng/mL		
	13C2-6:2FTS	3.74	ng/mL		
	13C2-8:2FTS	3.70	ng/mL		
	13C8-PFOSA	2.11	ng/mL		
	D5-NETFOSA	2.31	ng/mL		
	D3-NMEFOSA	2.36	ng/mL		
	D3-NMEFOSAA	4.88	ng/mL		
	D5-NETFOSAA	5.06	ng/mL		
	D7-NMEFOSE	23.1	ng/mL		
	D9-NETFOSAE	23.9	ng/mL		
	13C3-HFPO-DA	8.42	ng/mL		





Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03903-CCB3  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (5)  
 Acquired: 2022/12/20 - 10:56

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	(212.9 / 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	(262.9 / 219.0) N/A (262.9 / 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			
PFTrDA	(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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03903-CCB3  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (5)  
 Acquired: 2022/12/20 - 10:56

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(298.9 / 80.0) N/A (298.9 / 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	(698.9 / 80.0) N/A (698.9 / 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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03903-CCB3  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (5)  
 Acquired: 2022/12/20 - 10:56

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 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	(511.9 / 219.0) N/A (511.9 / 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) 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	(616.1 / 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			
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			

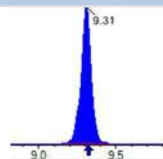
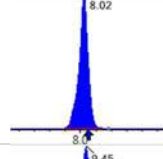
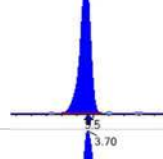
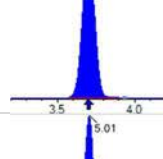
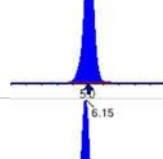
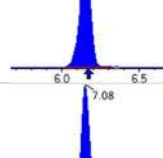
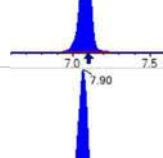
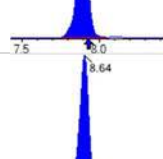
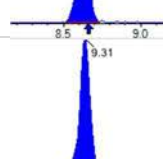
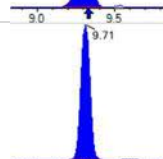
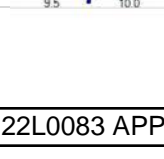


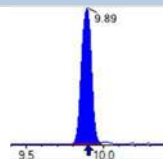
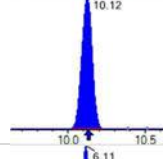
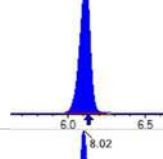
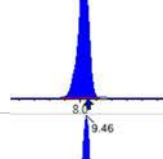
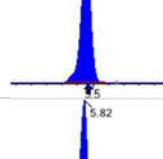
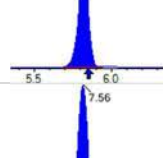
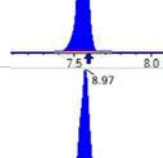
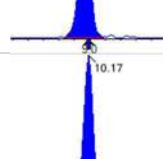
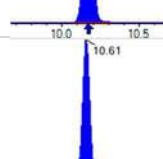
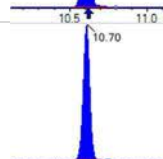

Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03903-CCB3  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (5)  
 Acquired: 2022/12/20 - 10:56

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	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(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) 75421	(3.70, N/A) (N/A, 0.00, N/A)	565.5	N/A	0.8626 [ 1.0000 ]	86.3% { 105.0% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 121518	(6.15, N/A) (N/A, -0.02, N/A)	493.1	N/A	0.9236 [ 1.0000 ]	92.4% { 104.0% }			
13C4_PFOA_IIS	(417.0 / 372.0) 107738	(7.90, N/A) (N/A, -0.02, N/A)	533.2	N/A	0.8607 [ 1.0000 ]	86.1% { 106.8% }			
13C5_PFNA_IIS	(468.0 / 423.0) 86697	(8.63, N/A) (N/A, -0.02, N/A)	217.6	N/A	0.8686 [ 1.0000 ]	86.9% { 89.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 74465	(9.31, N/A) (N/A, -0.01, N/A)	475.1	N/A	0.7181 [ 1.0000 ]	71.8% { 108.7% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 201715	(8.02, N/A) (N/A, -0.03, N/A)	716.6	N/A	0.8526 [ 1.0000 ]	85.3% { 95.6% }			
13C4_PFOS_IIS	(502.8 / 79.9) 153961	(9.45, N/A) (N/A, -0.01, N/A)	242.3	N/A	0.7674 [ 1.0000 ]	76.7% { 96.8% }			
13C4_PFBA_EIS	(217.0 / 172.0) 614330	(3.70, N/A) (N/A, 0.00, N/A)	853.3	N/A	7.8675 [ 8.0000 ]	98.3% { 108.0% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 346796	(5.01, N/A) (N/A, 0.00, N/A)	769.0	N/A	3.8764 [ 4.0000 ]	96.9% { 106.7% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 280631	(6.15, N/A) (N/A, -0.02, N/A)	631.8	N/A	1.9618 [ 2.0000 ]	98.1% { 117.6% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 244668	(7.08, N/A) (N/A, -0.02, N/A)	600.8	N/A	1.9359 [ 2.0000 ]	96.8% { 110.6% }			
13C8_PFOA_EIS	(421.0 / 376.0) 220435	(7.90, N/A) (N/A, -0.03, N/A)	624.8	N/A	1.8516 [ 2.0000 ]	92.6% { 96.0% }			
13C9_PFNA_EIS	(472.0 / 427.0) 94849	(8.64, N/A) (N/A, -0.02, N/A)	434.3	N/A	1.0016 [ 1.0000 ]	100.2% { 115.6% }			
13C6_PFDA_EIS	(519.0 / 474.0) 113608	(9.31, N/A) (N/A, -0.02, N/A)	322.3	N/A	1.1259 [ 1.0000 ]	112.6% { 105.1% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 171820	(9.71, N/A) (N/A, -0.01, N/A)	269.7	N/A	1.1826 [ 1.0000 ]	118.3% { 113.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 200777	(9.89, N/A) (N/A, -0.01, N/A)	349.8	N/A	1.2254 [ 1.0000 ]	122.5% { 110.2% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 102875	(10.12, N/A) (N/A, -0.01, N/A)	364.1	N/A	1.0331 [ 1.0000 ]	103.3% { 91.3% }			
13C3_PFBs_EIS	(302.0 / 80.0) 697782	(6.11, N/A) (N/A, -0.02, N/A)	675.1	N/A	2.1181 [ 2.0000 ]	105.9% { 105.4% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 374994	(8.02, N/A) (N/A, -0.03, N/A)	636.7	N/A	2.1949 [ 2.0000 ]	109.7% { 109.2% }			
13C8_PFOS_EIS	(507.0 / 80.0) 591425	(9.46, N/A) (N/A, -0.01, N/A)	480.4	N/A	2.3385 [ 2.0000 ]	116.9% { 107.5% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 84731	(5.82, N/A) (N/A, -0.02, N/A)	462.4	N/A	4.5612 [ 4.0000 ]	114.0% { 100.5% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 88958	(7.56, N/A) (N/A, -0.04, N/A)	492.2	N/A	3.7368 [ 4.0000 ]	93.4% { 100.0% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 79041	(8.97, N/A) (N/A, -0.02, N/A)	267.5	N/A	3.7034 [ 4.0000 ]	92.6% { 89.8% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 775688	(10.17, N/A) (N/A, 0.00, N/A)	818.3	N/A	2.1074 [ 2.0000 ]	105.4% { 93.0% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 216284	(10.61, N/A) (N/A, -0.01, N/A)	706.9	N/A	2.3587 [ 2.0000 ]	117.9% { 106.1% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 198065	(10.70, N/A) (N/A, -0.01, N/A)	889.3	N/A	2.3132 [ 2.0000 ]	115.7% { 107.2% }			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03903-CCB3  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (5)  
 Acquired: 2022/12/20 - 10:56

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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) 289376	(9.50, N/A) (N/A, -0.01, N/A)	425.4	N/A	4.8777 [ 4.0000 ]	121.9% { 122.8% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 249553	(9.68, N/A) (N/A, -0.01, N/A)	382.0	N/A	5.0614 [ 4.0000 ]	126.5% { 111.5% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 407806	(10.57, N/A) (N/A, 0.00, N/A)	912.5	N/A	23.1204 [ 20.0000 ]	115.6% { 119.2% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 227019	(10.67, N/A) (N/A, 0.00, N/A)	1000.2	N/A	23.9013 [ 20.0000 ]	119.5% { 114.3% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 733616	(6.50, N/A) (N/A, -0.01, N/A)	786.4	N/A	8.4230 [ 8.0000 ]	105.3% { 112.2% }			

## ANALYSIS SEQUENCE BLANKS

Laboratory: APPL, LLC  
 Client: AECOM  
 Sequence: SB03903  
 Calibration: 2251019

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

Lab Sample ID	Analyte	Found	Units	RL	C
SB03903-CCB4	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	0.00	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: SB03903  
 Calibration: 2251019

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

Lab Sample ID	Analyte	Found	Units	RL	C
SB03903-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	8.08	ng/mL		
	13C5-PFPEA	3.88	ng/mL		
	13C5-PFHXA	2.01	ng/mL		
	13C4-PFHPA	1.99	ng/mL		
	13C8-PFOA	1.93	ng/mL		
	13C9-PFNA	1.07	ng/mL		
	13C6-PFDA	1.06	ng/mL		
	13C7-PFUnA	1.22	ng/mL		
	13C2-PFDOA	1.11	ng/mL		
	13C2-PFTEDA	1.18	ng/mL		
	13C3-PFBS	2.09	ng/mL		
	13C3-PFHXS	2.15	ng/mL		
	13C8-PFOS	1.87	ng/mL		
	13C2-4:2FTS	4.50	ng/mL		
	13C2-6:2FTS	3.77	ng/mL		
	13C2-8:2FTS	4.55	ng/mL		
	13C8-PFOSA	1.86	ng/mL		
	D5-NETFOSA	2.22	ng/mL		
	D3-NMEFOSA	2.03	ng/mL		
	D3-NMEFOSAA	3.42	ng/mL		
	D5-NETFOSAA	3.76	ng/mL		
	D7-NMEFOSE	21.6	ng/mL		
	D9-NETFOSAE	20.4	ng/mL		
	13C3-HFPO-DA	8.34	ng/mL		



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03903-CCB4  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (23)  
 Acquired: 2022/12/20 - 14:45

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	(212.9 / 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	(262.9 / 219.0) N/A (262.9 / 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			
PFTrDA	(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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03903-CCB4  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (23)  
 Acquired: 2022/12/20 - 14:45

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	( 298.9 / 80.0 ) N/A ( 298.9 / 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	( 698.9 / 80.0 ) N/A ( 698.9 / 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			

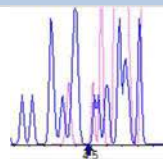
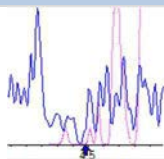
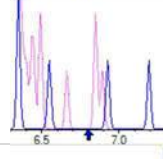
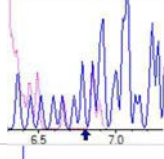
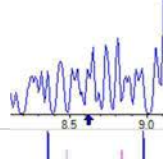
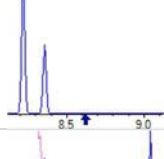
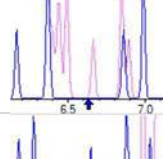
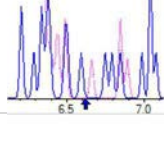
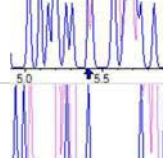
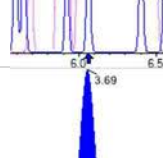
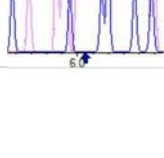
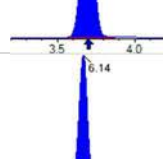
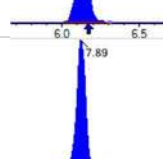
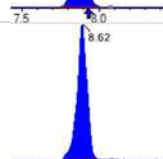



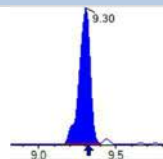
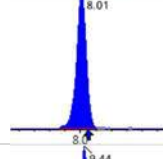
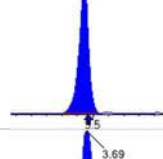
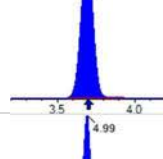
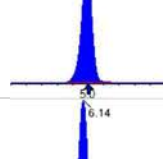
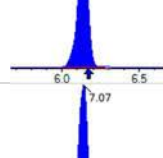
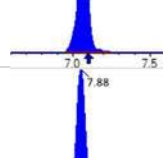
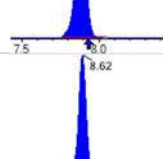
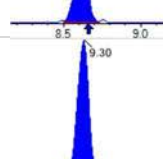
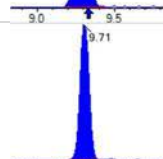
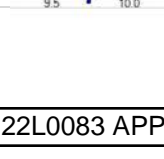
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

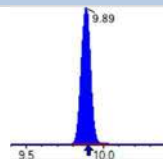
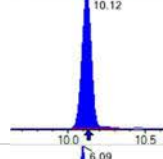
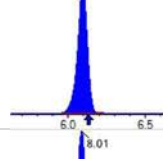
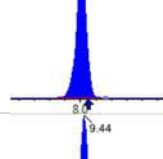
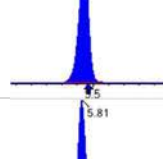
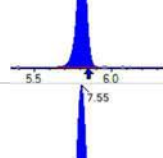
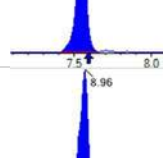
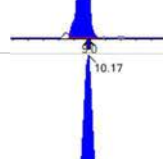
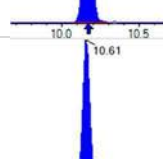
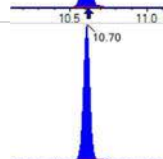

Sample I.D.: SB03903-CCB4  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

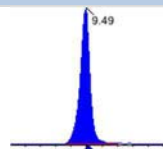
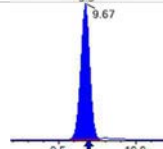
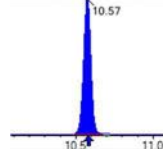
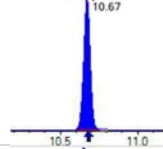
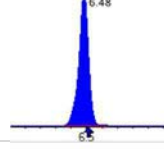
Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (23)  
 Acquired: 2022/12/20 - 14:45

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(511.9 / 219.0) N/A (511.9 / 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) 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	(616.1 / 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			
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.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 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	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(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) 70533	(3.69, N/A) (N/A, -0.01, N/A)	733.7	N/A	0.8067 [ 1.0000 ]	80.7% { 98.2% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 117302	(6.14, N/A) (N/A, -0.03, N/A)	528.7	N/A	0.8915 [ 1.0000 ]	89.2% { 100.4% }			
13C4_PFOA_IIS	(417.0 / 372.0) 107040	(7.89, N/A) (N/A, -0.04, N/A)	760.4	N/A	0.8552 [ 1.0000 ]	85.5% { 106.1% }			
13C5_PFNA_IIS	(468.0 / 423.0) 81118	(8.62, N/A) (N/A, -0.03, N/A)	345.0	N/A	0.8127 [ 1.0000 ]	81.3% { 83.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 80546	(9.30, N/A) (N/A, -0.02, N/A)	219.4	N/A	0.7767 [ 1.0000 ]	77.7% { 117.6% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 203542	(8.01, N/A) (N/A, -0.05, N/A)	599.1	N/A	0.8603 [ 1.0000 ]	86.0% { 96.4% }			
13C4_PFOS_IIS	(502.8 / 79.9) 193482	(9.44, N/A) (N/A, -0.02, N/A)	518.7	N/A	0.9644 [ 1.0000 ]	96.4% { 121.6% }			
13C4_PFBA_EIS	(217.0 / 172.0) 589726	(3.69, N/A) (N/A, -0.01, N/A)	858.3	N/A	8.0757 [ 8.0000 ]	100.9% { 103.6% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 335105	(4.99, N/A) (N/A, -0.02, N/A)	771.1	N/A	3.8803 [ 4.0000 ]	97.0% { 103.1% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 278010	(6.14, N/A) (N/A, -0.03, N/A)	590.9	N/A	2.0133 [ 2.0000 ]	100.7% { 116.5% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 242610	(7.07, N/A) (N/A, -0.03, N/A)	669.1	N/A	1.9886 [ 2.0000 ]	99.4% { 109.7% }			
13C8_PFOA_EIS	(421.0 / 376.0) 228071	(7.88, N/A) (N/A, -0.04, N/A)	520.6	N/A	1.9283 [ 2.0000 ]	96.4% { 99.3% }			
13C9_PFNA_EIS	(472.0 / 427.0) 94811	(8.62, N/A) (N/A, -0.03, N/A)	245.3	N/A	1.0700 [ 1.0000 ]	107.0% { 115.5% }			
13C6_PFDA_EIS	(519.0 / 474.0) 115262	(9.30, N/A) (N/A, -0.03, N/A)	335.4	N/A	1.0561 [ 1.0000 ]	105.6% { 106.6% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 191573	(9.71, N/A) (N/A, -0.02, N/A)	277.4	N/A	1.2190 [ 1.0000 ]	121.9% { 126.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 197114	(9.89, N/A) (N/A, -0.01, N/A)	576.1	N/A	1.1122 [ 1.0000 ]	111.2% { 108.2% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 126812	(10.12, N/A) (N/A, -0.01, N/A)	407.6	N/A	1.1773 [ 1.0000 ]	117.7% { 112.6% }			
13C3_PFBs_EIS	(302.0 / 80.0) 695528	(6.09, N/A) (N/A, -0.03, N/A)	765.0	N/A	2.0923 [ 2.0000 ]	104.6% { 105.1% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 371491	(8.01, N/A) (N/A, -0.04, N/A)	698.7	N/A	2.1549 [ 2.0000 ]	107.7% { 108.1% }			
13C8_PFOS_EIS	(507.0 / 80.0) 594715	(9.44, N/A) (N/A, -0.02, N/A)	598.1	N/A	1.8712 [ 2.0000 ]	93.6% { 108.1% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 84408	(5.81, N/A) (N/A, -0.04, N/A)	535.3	N/A	4.5030 [ 4.0000 ]	112.6% { 100.1% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 90656	(7.55, N/A) (N/A, -0.05, N/A)	423.1	N/A	3.7739 [ 4.0000 ]	94.3% { 101.9% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 98061	(8.96, N/A) (N/A, -0.02, N/A)	306.7	N/A	4.5534 [ 4.0000 ]	113.8% { 111.4% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 859777	(10.17, N/A) (N/A, -0.01, N/A)	626.2	N/A	1.8588 [ 2.0000 ]	92.9% { 103.1% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 234450	(10.61, N/A) (N/A, -0.01, N/A)	1011.8	N/A	2.0346 [ 2.0000 ]	101.7% { 115.0% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 238892	(10.70, N/A) (N/A, -0.01, N/A)	1462.0	N/A	2.2201 [ 2.0000 ]	111.0% { 129.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 254984	(9.49, N/A) (N/A, -0.02, N/A)	259.8	N/A	3.4201 [ 4.0000 ]	85.5% { 108.2% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 232848	(9.67, N/A) (N/A, -0.02, N/A)	307.5	N/A	3.7579 [ 4.0000 ]	93.9% { 104.1% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 479369	(10.57, N/A) (N/A, 0.00, N/A)	1089.0	N/A	21.6263 [ 20.0000 ]	108.1% { 140.1% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 243383	(10.67, N/A) (N/A, -0.01, N/A)	1184.4	N/A	20.3902 [ 20.0000 ]	102.0% { 122.6% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 700773	(6.48, N/A) (N/A, -0.03, N/A)	758.9	N/A	8.3351 [ 8.0000 ]	104.2% { 107.2% }			



## ANALYSIS SEQUENCE BLANKS

Laboratory: APPL, LLC  
 Client: AECOM  
 Sequence: SB03903  
 Calibration: 2251019

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

Lab Sample ID	Analyte	Found	Units	RL	C
SB03903-CCB5	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	0.00	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: SB03903  
 Calibration: 2251019

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

Lab Sample ID	Analyte	Found	Units	RL	C
SB03903-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	8.21	ng/mL		
	13C5-PFPEA	3.70	ng/mL		
	13C5-PFHXA	1.96	ng/mL		
	13C4-PFHPA	1.84	ng/mL		
	13C8-PFOA	2.07	ng/mL		
	13C9-PFNA	1.05	ng/mL		
	13C6-PFDA	1.22	ng/mL		
	13C7-PFUnA	1.20	ng/mL		
	13C2-PFDOA	1.24	ng/mL		
	13C2-PFTEDA	1.10	ng/mL		
	13C3-PFBS	2.16	ng/mL		
	13C3-PFHXS	2.20	ng/mL		
	13C8-PFOS	2.38	ng/mL		
	13C2-4:2FTS	4.52	ng/mL		
	13C2-6:2FTS	4.23	ng/mL		
	13C2-8:2FTS	3.89	ng/mL		
	13C8-PFOSA	2.47	ng/mL		
	D5-NETFOSA	2.53	ng/mL		
	D3-NMEFOSA	2.38	ng/mL		
	D3-NMEFOSAA	3.82	ng/mL		
	D5-NETFOSAA	4.83	ng/mL		
	D7-NMEFOSE	25.2	ng/mL		
	D9-NETFOSAE	23.8	ng/mL		
	13C3-HFPO-DA	8.15	ng/mL		



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03903-CCB5  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (39)  
 Acquired: 2022/12/20 - 19:30

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(212.9 / 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	(262.9 / 219.0) N/A (262.9 / 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			
PFTrDA	(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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03903-CCB5  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (39)  
 Acquired: 2022/12/20 - 19:30

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	( 298.9 / 80.0 ) N/A ( 298.9 / 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	( 698.9 / 80.0 ) N/A ( 698.9 / 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			

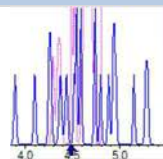
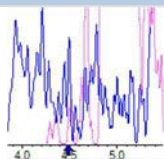
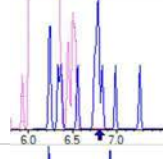
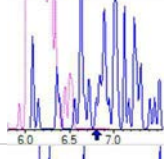
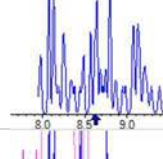
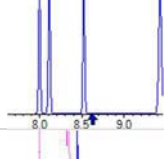
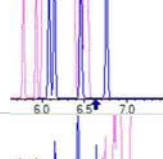
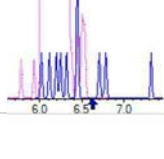
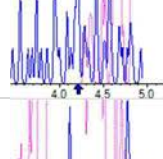
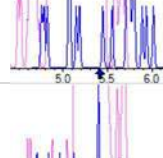
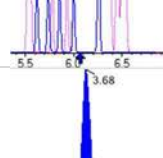
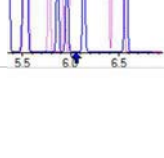
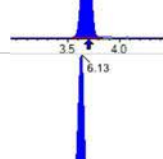
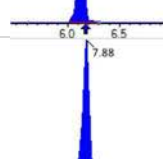
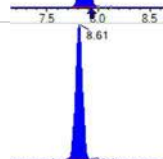



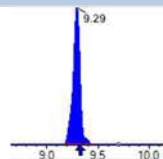
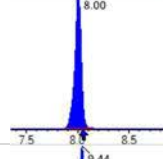
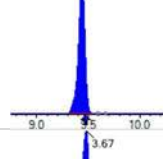
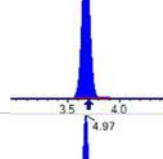
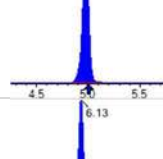
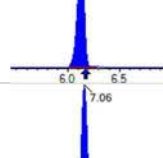
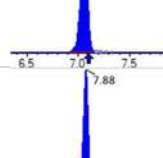
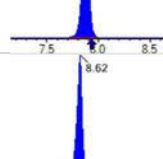
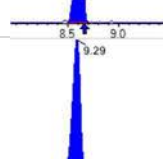
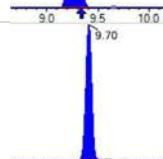

Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

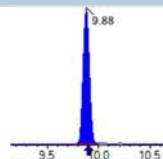
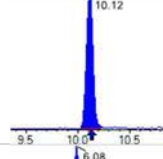
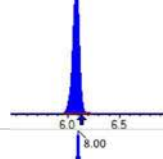
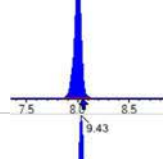
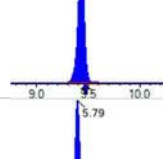
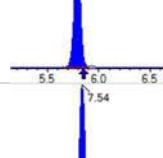
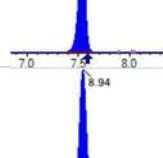
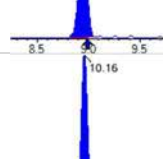
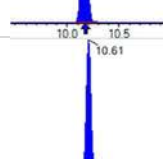
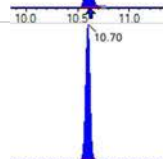

Sample I.D.: SB03903-CCB5  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (39)  
 Acquired: 2022/12/20 - 19:30

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(511.9 / 219.0) N/A (511.9 / 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) 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	(616.1 / 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.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 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	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(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) 69114	(3.68, N/A) (N/A, -0.02, N/A)	631.9	N/A	0.7905 [ 1.0000 ]	79.1% { 96.3% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 123985	(6.13, N/A) (N/A, -0.04, N/A)	687.5	N/A	0.9423 [ 1.0000 ]	94.2% { 106.1% }			
13C4_PFOA_IIS	(417.0 / 372.0) 113039	(7.88, N/A) (N/A, -0.05, N/A)	593.6	N/A	0.9031 [ 1.0000 ]	90.3% { 112.0% }			
13C5_PFNA_IIS	(468.0 / 423.0) 76126	(8.61, N/A) (N/A, -0.04, N/A)	230.8	N/A	0.7626 [ 1.0000 ]	76.3% { 78.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 72608	(9.29, N/A) (N/A, -0.03, N/A)	691.2	N/A	0.7002 [ 1.0000 ]	70.0% { 106.0% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 198853	(8.00, N/A) (N/A, -0.05, N/A)	646.2	N/A	0.8405 [ 1.0000 ]	84.1% { 94.2% }			
13C4_PFOS_IIS	(502.8 / 79.9) 159707	(9.44, N/A) (N/A, -0.03, N/A)	327.6	N/A	0.7961 [ 1.0000 ]	79.6% { 100.4% }			
13C4_PFBA_EIS	(217.0 / 172.0) 587470	(3.67, N/A) (N/A, -0.02, N/A)	738.6	N/A	8.2100 [ 8.0000 ]	102.6% { 103.2% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 337845	(4.97, N/A) (N/A, -0.03, N/A)	825.4	N/A	3.7012 [ 4.0000 ]	92.5% { 104.0% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 286018	(6.13, N/A) (N/A, -0.04, N/A)	516.0	N/A	1.9596 [ 2.0000 ]	98.0% { 119.8% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 237913	(7.06, N/A) (N/A, -0.04, N/A)	554.2	N/A	1.8450 [ 2.0000 ]	92.2% { 107.6% }			
13C8_PFOA_EIS	(421.0 / 376.0) 258772	(7.88, N/A) (N/A, -0.05, N/A)	621.9	N/A	2.0717 [ 2.0000 ]	103.6% { 112.6% }			
13C9_PFNA_EIS	(472.0 / 427.0) 87614	(8.62, N/A) (N/A, -0.04, N/A)	377.1	N/A	1.0536 [ 1.0000 ]	105.4% { 106.7% }			
13C6_PFDA_EIS	(519.0 / 474.0) 120262	(9.29, N/A) (N/A, -0.04, N/A)	645.8	N/A	1.2223 [ 1.0000 ]	122.2% { 111.3% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 169811	(9.70, N/A) (N/A, -0.02, N/A)	339.1	N/A	1.1987 [ 1.0000 ]	119.9% { 112.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 198882	(9.88, N/A) (N/A, -0.02, N/A)	364.2	N/A	1.2449 [ 1.0000 ]	124.5% { 109.2% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 107004	(10.12, N/A) (N/A, -0.01, N/A)	236.9	N/A	1.1020 [ 1.0000 ]	110.2% { 95.0% }			
13C3_PFBs_EIS	(302.0 / 80.0) 701203	(6.08, N/A) (N/A, -0.05, N/A)	873.5	N/A	2.1591 [ 2.0000 ]	108.0% { 106.0% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 370305	(8.00, N/A) (N/A, -0.05, N/A)	743.9	N/A	2.1987 [ 2.0000 ]	109.9% { 107.8% }			
13C8_PFOS_EIS	(507.0 / 80.0) 623658	(9.43, N/A) (N/A, -0.03, N/A)	590.9	N/A	2.3772 [ 2.0000 ]	118.9% { 113.4% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 82850	(5.79, N/A) (N/A, -0.05, N/A)	620.4	N/A	4.5242 [ 4.0000 ]	113.1% { 98.3% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 99363	(7.54, N/A) (N/A, -0.05, N/A)	508.0	N/A	4.2339 [ 4.0000 ]	105.8% { 111.7% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 81759	(8.94, N/A) (N/A, -0.04, N/A)	233.6	N/A	3.8859 [ 4.0000 ]	97.1% { 92.9% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 942916	(10.16, N/A) (N/A, -0.01, N/A)	702.9	N/A	2.4696 [ 2.0000 ]	123.5% { 113.1% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 226137	(10.61, N/A) (N/A, -0.01, N/A)	939.3	N/A	2.3774 [ 2.0000 ]	118.9% { 110.9% }			
D5_NeIFOSA_EIS	(531.1 / 169.0) 225020	(10.70, N/A) (N/A, -0.01, N/A)	1373.1	N/A	2.5334 [ 2.0000 ]	126.7% { 121.8% }			





Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: SB03903-CCB5  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

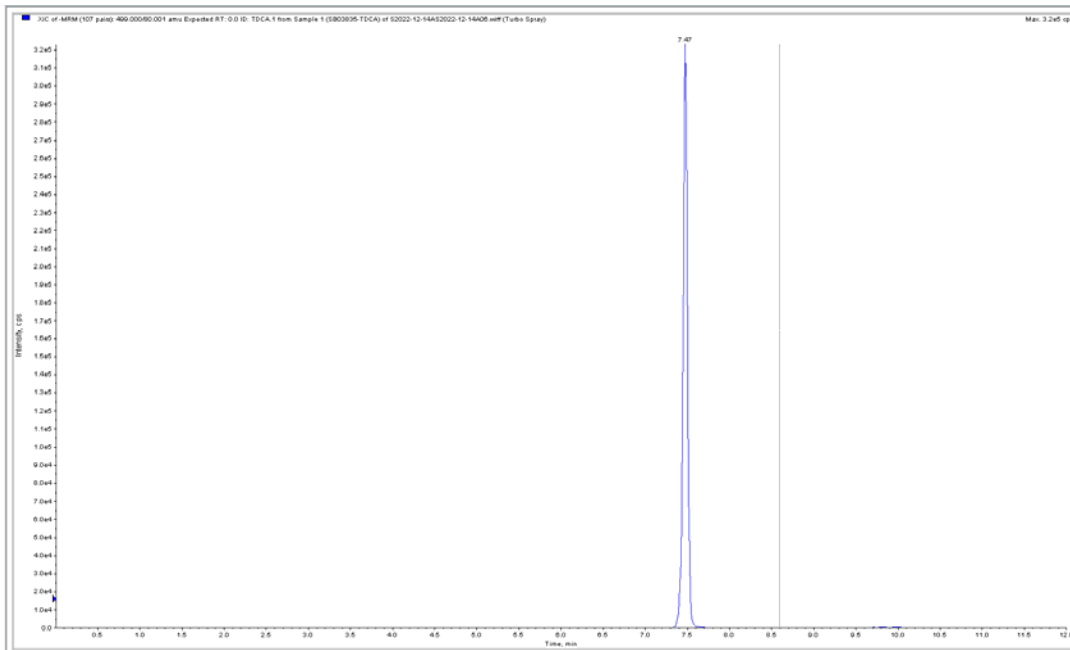
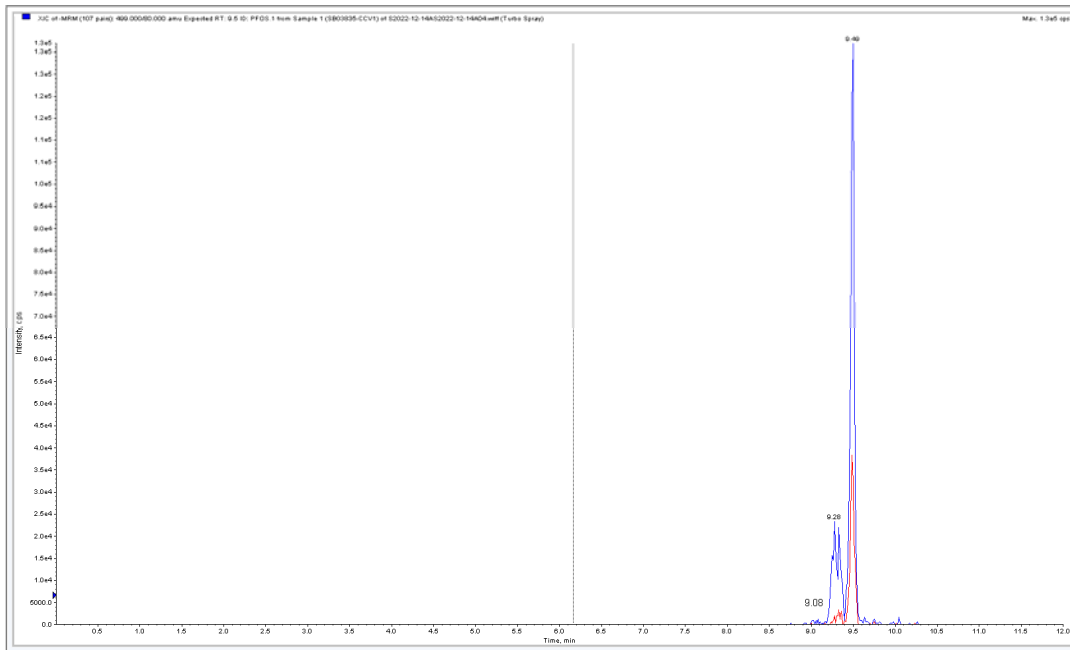
Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (39)  
 Acquired: 2022/12/20 - 19:30

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 235127	(9.48, N/A) (N/A, -0.02, N/A)	338.0	N/A	3.8207 [ 4.0000 ]	95.5% { 99.8% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 247182	(9.67, N/A) (N/A, -0.02, N/A)	332.6	N/A	4.8329 [ 4.0000 ]	120.8% { 110.5% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 460210	(10.57, N/A) (N/A, -0.01, N/A)	1186.7	N/A	25.1527 [ 20.0000 ]	125.8% { 134.5% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 234569	(10.67, N/A) (N/A, -0.01, N/A)	993.9	N/A	23.8077 [ 20.0000 ]	119.0% { 118.2% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 723821	(6.47, N/A) (N/A, -0.04, N/A)	837.2	N/A	8.1451 [ 8.0000 ]	101.8% { 110.7% }			

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# BILE STANDARD CHECK

## S2022-12-14A

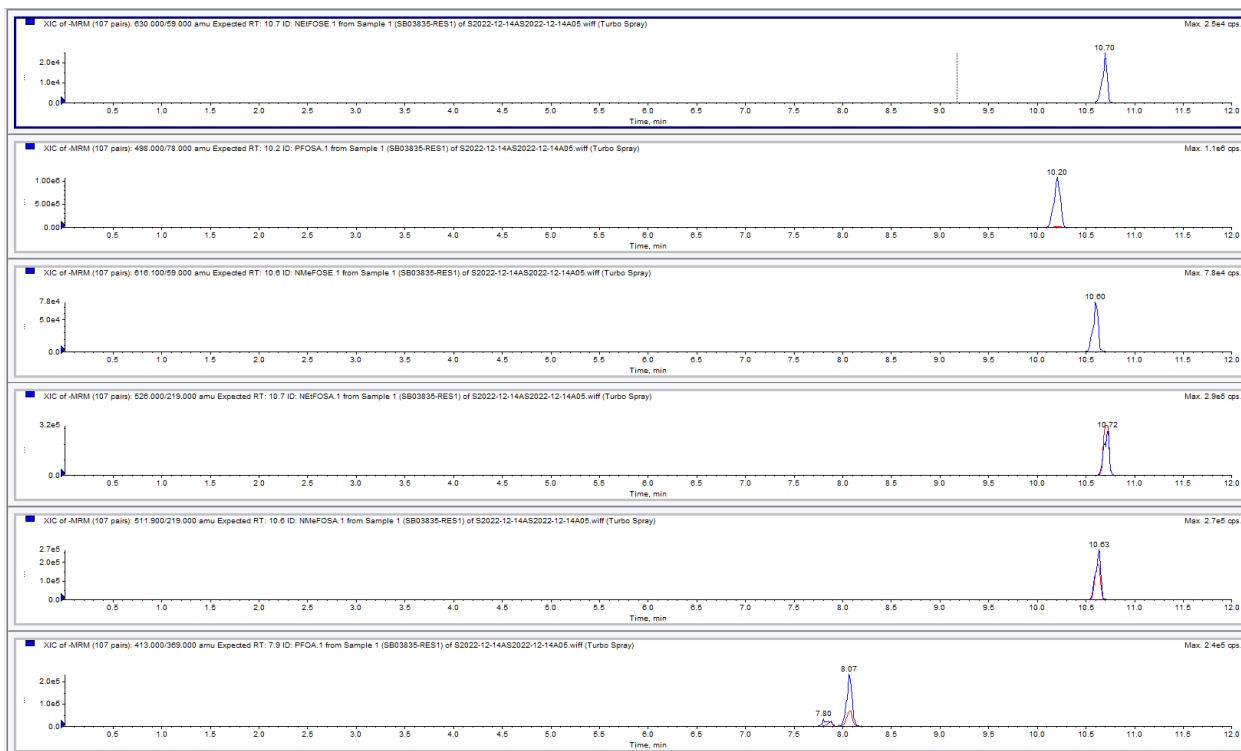


TDCA = 7.47

PFOS = 9.08

9.08-7.47=1.61 > 1.0 Pass

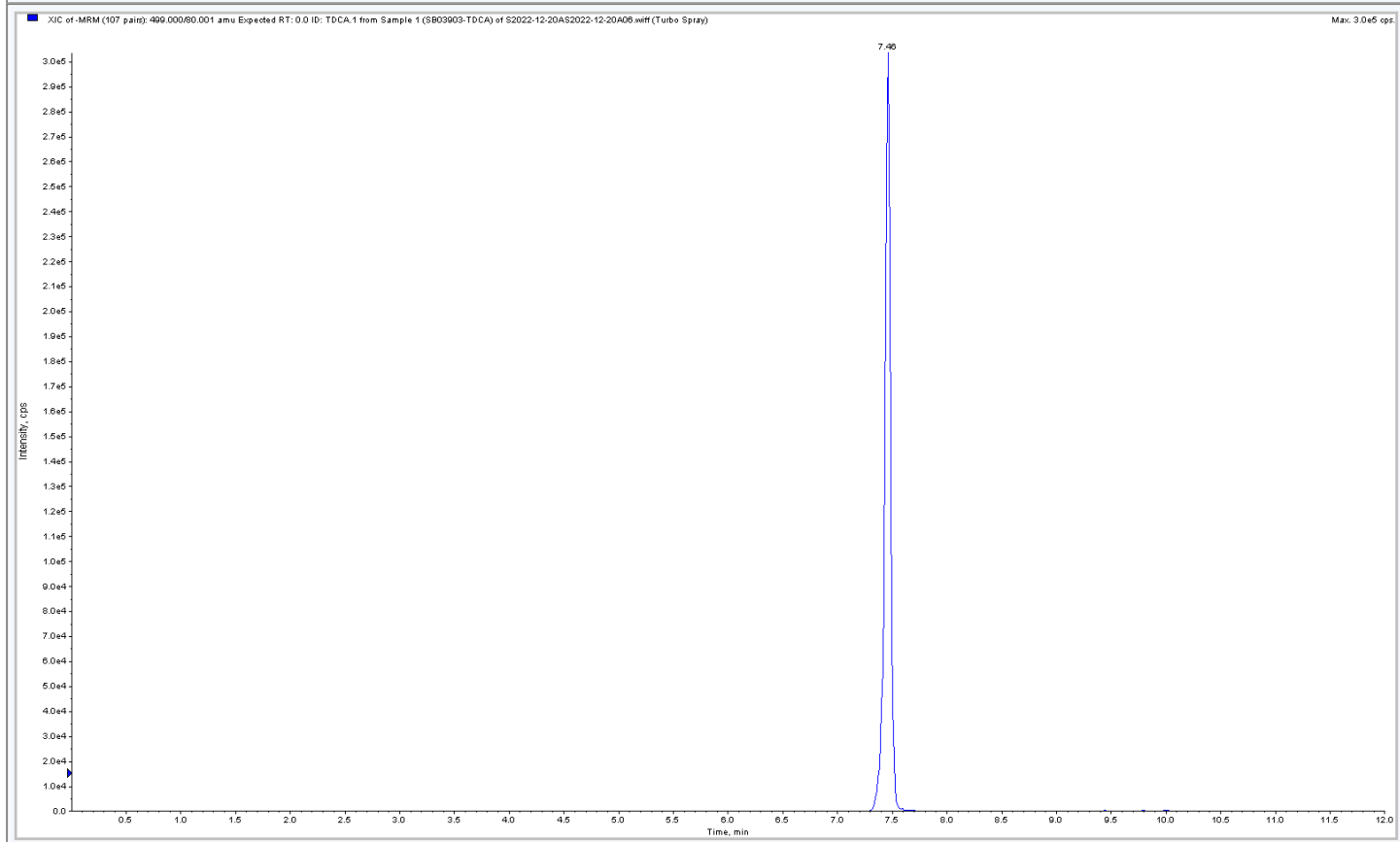
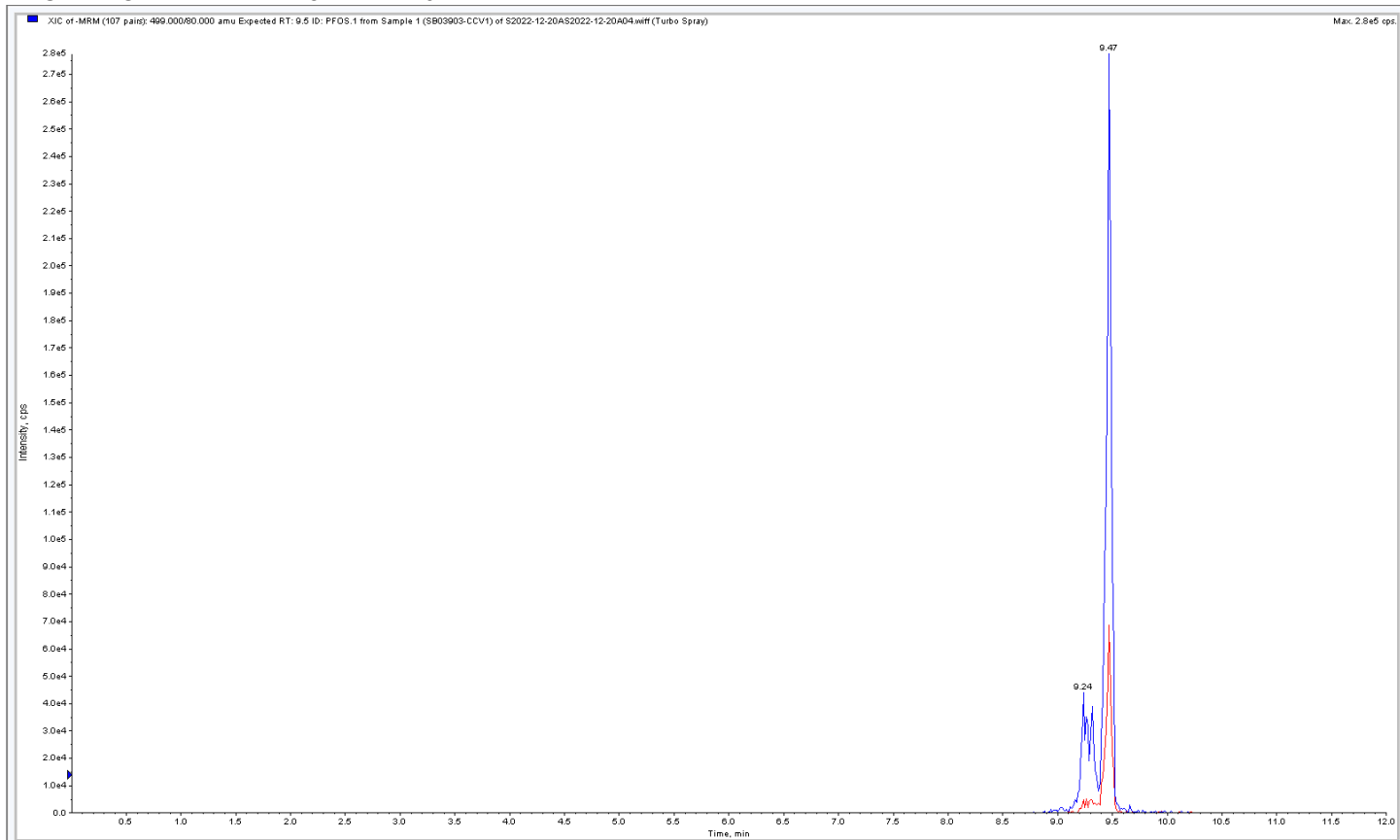
## 2022-12-14A Column Resolution



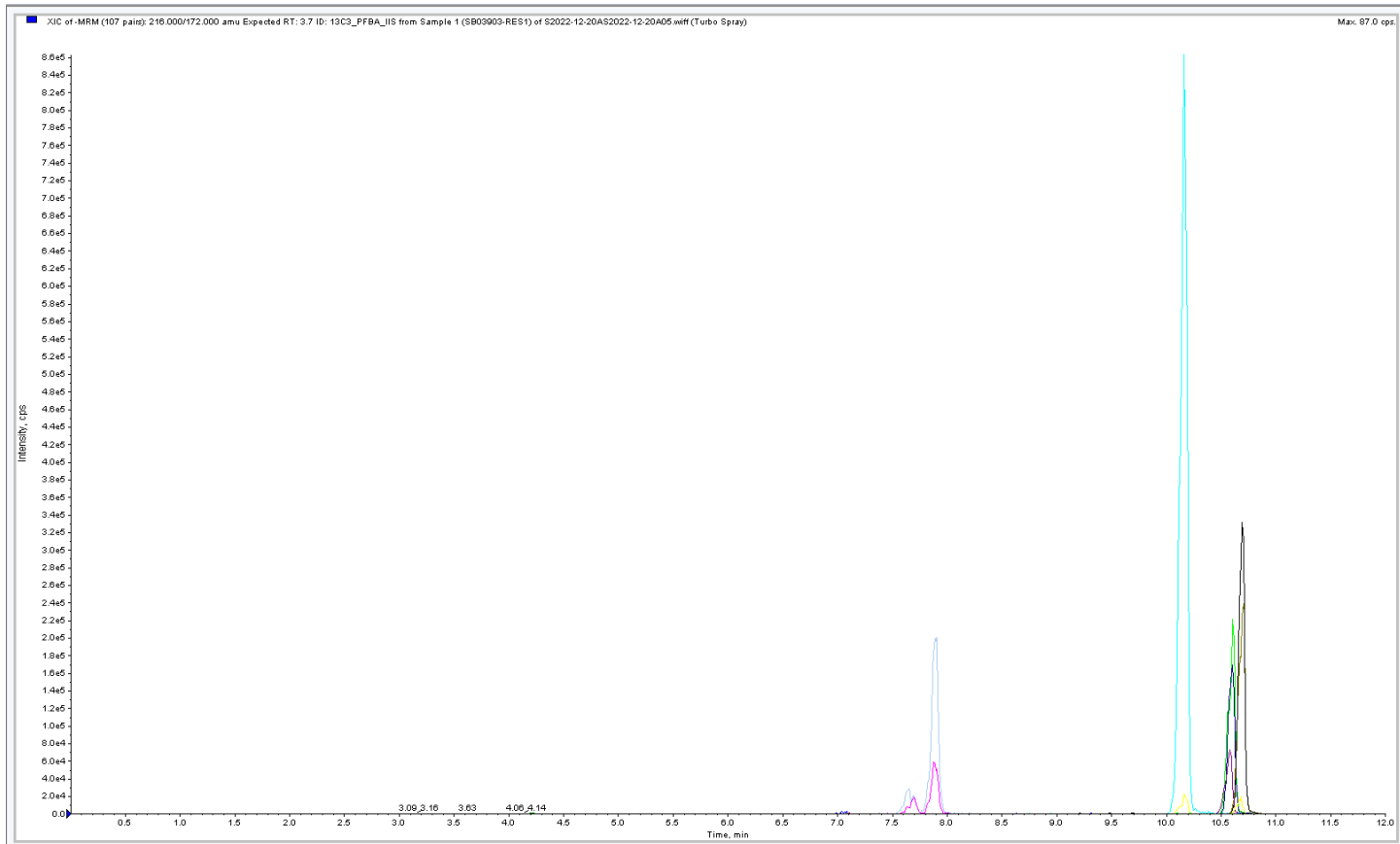
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BILE STANDARD CHECK S2022-12-20B/SB03903

TDCA = 7.46  
PFOS = 9.00  
TDCA-PFOS = 1.54 > 1.0 PASS



### S2022-12-20B/SB03903 Column Resolution



# QUALITY CONTROL RAW DATA



## ANALYSIS DATA SHEET

Blank

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0295-BLK1
Sampled:		File ID:	S2022-12-14A (41)
Solids:		Prepared:	12/14/22 08:54
Batch:	BBL0295	Analyzed:	12/14/22 19:49
Column:	1	Preparation:	1633
		Dilution:	1
		Calibration:	2251013
		Instrument:	Saphira
		Sequence:	SB03835

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
PFBA	0.80 U	1.6	0.80	0.21	U
PFPEA	0.40 U	0.80	0.40	0.065	U
PFHXA	0.20 U	0.40	0.20	0.055	IR2, U
PFHPA	0.20 U	0.40	0.20	0.041	U
PFOA	0.20 U	0.40	0.20	0.15	U
PFNA	0.20 U	0.40	0.20	0.082	U
PFDA	0.20 U	0.40	0.20	0.10	U
PFUnA	0.20 U	0.40	0.20	0.16	U
PFDOA	0.20 U	0.40	0.20	0.11	U
PFTRDA	0.30 U	0.40	0.30	0.20	U
PFTEDA	0.20 U	0.40	0.20	0.20	U
PFBS	0.20 U	0.40	0.20	0.037	U
PFPEs	0.20 U	0.40	0.20	0.063	U
PFHXS	0.0457 J	0.40	0.20	0.032	J
PFHPS	0.20 U	0.40	0.20	0.051	U
PFOS	1.11	0.40	0.20	0.064	B
PFNS	0.20 U	0.40	0.20	0.12	U
PFDS	0.20 U	0.40	0.20	0.15	U
PFDOS	0.20 U	0.40	0.20	0.12	U
4:2FTS	0.80 U	1.6	0.80	0.29	U
6:2FTS	0.80 U	1.6	0.80	0.31	U
8:2FTS	0.80 U	1.6	0.80	0.082	U
PFOSA	0.20 U	0.40	0.20	0.10	U
NMeFOSA	0.80 U	1.6	0.80	0.47	U
NEtFOSA	0.80 U	1.6	0.80	0.41	U
NMeFOSAA	0.20 U	0.40	0.20	0.11	U
NEtFOSAA	0.20 U	0.40	0.20	0.11	U
NMeFOSE	1.2 U	1.6	1.2	1.0	U
NEtFOSE	1.2 U	1.6	1.2	1.0	U
HFPO-DA	0.40 U	0.80	0.40	0.17	U

**ANALYSIS DATA SHEET**

Blank

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0295-BLK1
Sampled:		Prepared:	12/14/22 08:54
Solids:		Preparation:	1633
Batch:	BBL0295	Sequence:	SB03835
Column:	1	Calibration:	2251013
			Instrument: Saphira

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
ADONA	0.40 U	0.80	0.40	0.12	U
PFEESA	0.40 U	0.80	0.40	0.11	U
PFMPA	0.40 U	0.80	0.40	0.054	U
PFMBA	0.40 U	0.80	0.40	0.091	U
NFDHA	0.40 U	0.80	0.40	0.30	U
9CL-PF3ONS	0.40 U	0.80	0.40	0.21	U
11CL-PF3OUDS	0.40 U	0.80	0.40	0.21	U
3:3FTCA	0.80 U	1.6	0.80	0.57	U
5:3FTCA	0.80 U	1.6	0.80	0.44	U
7:3FTCA	0.80 U	1.6	0.80	0.55	U



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: BBL0295-BLK1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (41)  
 Acquired: 2022/12/14 - 19:49

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(212.9 / 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	(262.9 / 219.0) N/A (262.9 / 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) 1495 (313.0 / 119.0) 320	(6.16, 1.00) (0.01, N/A, 1.7)	11.3 8.3	0.2138 231.0 200.7	0.0117	N/A			IR2,
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) 4268 (413.0 / 169.0) 1683	(7.90, 1.00) (0.00, N/A, 1.1)	18.5 97.6	0.3942 117.5 135.3	0.0320	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			
PFTrDA	(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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: BBL0295-BLK1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (41)  
 Acquired: 2022/12/14 - 19:49

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	( 298.9 / 80.0 ) N/A ( 298.9 / 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 ) 3684 ( 399.0 / 99.0 ) 885	( 8.03 , 1.00 ) ( 0.00 , N/A , -0.2 )	484001.5 230.5	0.2403 74.5 69.5	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 ) 109329 ( 499.0 / 99.0 ) 19098	( 9.47 , 1.00 ) ( 0.00 , N/A , 0.2 )	97.0 191.4	0.1747 76.1 68.5	0.2786	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	( 698.9 / 80.0 ) N/A ( 698.9 / 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			

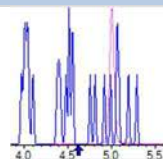
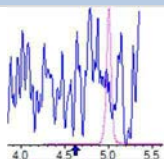
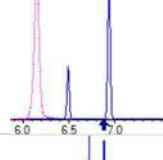
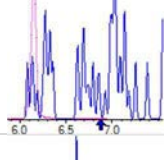
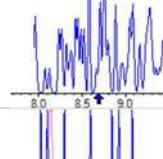
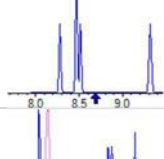
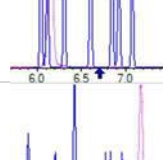
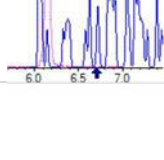
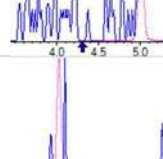
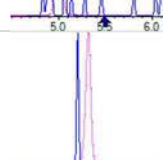
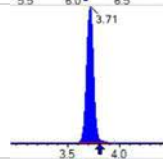
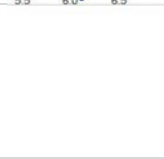
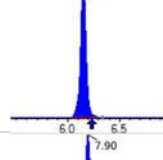
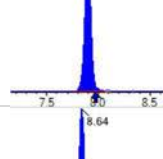
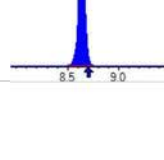
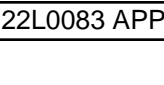


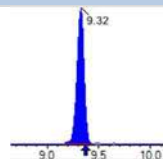
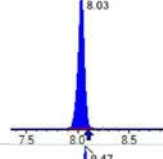
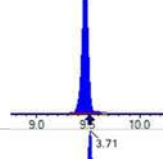
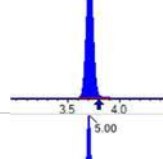
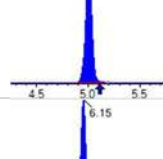
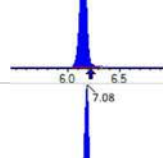
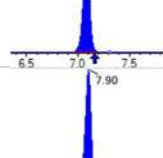
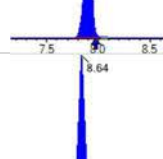
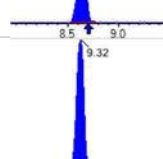
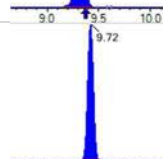

Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

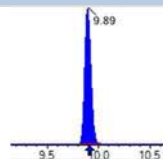
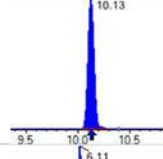
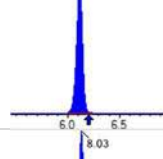
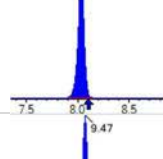
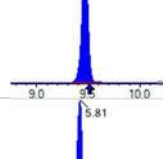
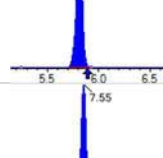
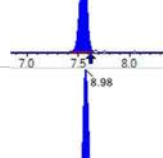
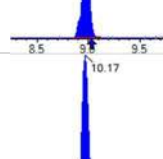
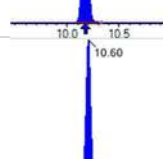
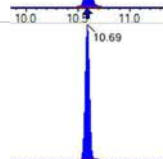
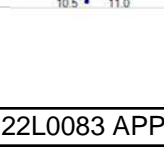
Sample I.D.: BBL0295-BLK1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (41)  
 Acquired: 2022/12/14 - 19:49

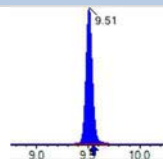
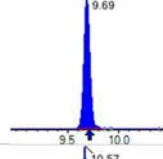
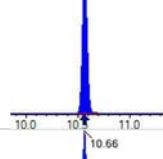
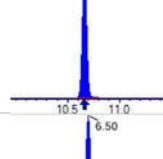
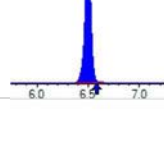
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) N/A (498.0 / 478.0) N/A	(N/A, N/A) (N/A, N/A, N/A)	N/A N/A	N/A 0.0 0.0	0.0000	N/A			
NMeFOSA	(511.9 / 219.0) N/A (511.9 / 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) 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	(616.1 / 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.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 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	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(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) 89261	(3.71, N/A) (N/A, 0.00, N/A)	869.2	N/A	0.7357 [ 1.0000 ]	73.6% { 92.7% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 144158	(6.15, N/A) (N/A, -0.02, N/A)	588.6	N/A	0.7900 [ 1.0000 ]	79.0% { 82.3% }			
13C4_PFOA_IIS	(417.0 / 372.0) 144883	(7.90, N/A) (N/A, -0.02, N/A)	640.8	N/A	0.8300 [ 1.0000 ]	83.0% { 99.9% }			
13C5_PFNA_IIS	(468.0 / 423.0) 112359	(8.64, N/A) (N/A, -0.03, N/A)	571.1	N/A	0.8269 [ 1.0000 ]	82.7% { 95.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 120529	(9.32, N/A) (N/A, -0.02, N/A)	322.2	N/A	0.8686 [ 1.0000 ]	86.9% { 92.0% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 258811	(8.03, N/A) (N/A, -0.02, N/A)	735.7	N/A	0.8019 [ 1.0000 ]	80.2% { 91.4% }			
13C4_PFOS_IIS	(502.8 / 79.9) 225577	(9.47, N/A) (N/A, -0.02, N/A)	329.9	N/A	0.8958 [ 1.0000 ]	89.6% { 88.6% }			
13C4_PFBA_EIS	(217.0 / 172.0) 659555	(3.71, N/A) (N/A, 0.00, N/A)	902.5	N/A	9.6936 [ 8.0000 ]	121.2% { 103.0% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 343264	(5.00, N/A) (N/A, -0.02, N/A)	777.1	N/A	4.2998 [ 4.0000 ]	107.5% { 105.1% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 289572	(6.15, N/A) (N/A, -0.02, N/A)	645.2	N/A	2.3835 [ 2.0000 ]	119.2% { 104.6% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 253124	(7.08, N/A) (N/A, -0.02, N/A)	573.2	N/A	2.4001 [ 2.0000 ]	120.0% { 108.9% }			
13C8_PFOA_EIS	(421.0 / 376.0) 266808	(7.90, N/A) (N/A, -0.02, N/A)	585.4	N/A	2.4016 [ 2.0000 ]	120.1% { 115.1% }			
13C9_PFNA_EIS	(472.0 / 427.0) 99232	(8.64, N/A) (N/A, -0.03, N/A)	416.0	N/A	1.1463 [ 1.0000 ]	114.6% { 96.4% }			
13C6_PFDA_EIS	(519.0 / 474.0) 142397	(9.32, N/A) (N/A, -0.03, N/A)	330.3	N/A	1.2319 [ 1.0000 ]	123.2% { 116.6% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 194194	(9.72, N/A) (N/A, -0.01, N/A)	480.6	N/A	1.2232 [ 1.0000 ]	122.3% { 111.2% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 242803	(9.89, N/A) (N/A, -0.01, N/A)	590.1	N/A	1.2436 [ 1.0000 ]	124.4% { 116.1% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 161347	(10.13, N/A) (N/A, -0.01, N/A)	400.3	N/A	1.3162 [ 1.0000 ]	131.6% { 119.6% }			
13C3_PFBs_EIS	(302.0 / 80.0) 735706	(6.11, N/A) (N/A, -0.03, N/A)	861.3	N/A	2.4705 [ 2.0000 ]	123.5% { 108.2% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 401694	(8.03, N/A) (N/A, -0.02, N/A)	850.8	N/A	2.3969 [ 2.0000 ]	119.8% { 106.4% }			
13C8_PFOS_EIS	(507.0 / 80.0) 713663	(9.47, N/A) (N/A, -0.02, N/A)	538.8	N/A	2.5410 [ 2.0000 ]	127.1% { 119.9% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 86556	(5.81, N/A) (N/A, -0.02, N/A)	548.7	N/A	4.9731 [ 4.0000 ]	124.3% { 115.7% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 108076	(7.55, N/A) (N/A, -0.02, N/A)	517.9	N/A	5.0786 [ 4.0000 ]	127.0% { 107.1% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 115264	(8.98, N/A) (N/A, -0.02, N/A)	471.8	N/A	5.4290 [ 4.0000 ]	135.7% { 118.8% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 968723	(10.17, N/A) (N/A, 0.00, N/A)	1221.4	N/A	2.2803 [ 2.0000 ]	114.0% { 109.7% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 146604	(10.60, N/A) (N/A, 0.00, N/A)	881.0	N/A	1.3444 [ 2.0000 ]	67.2% { 62.7% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 134676	(10.69, N/A) (N/A, 0.00, N/A)	1313.0	N/A	1.4235 [ 2.0000 ]	71.2% { 71.1% }			



Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 284020	(9.51, N/A) (N/A, -0.02, N/A)	474.6	N/A	4.2725 [ 4.0000 ]	106.8% { 111.9% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 297448	(9.69, N/A) (N/A, -0.01, N/A)	463.0	N/A	4.9451 [ 4.0000 ]	123.6% { 121.1% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 364451	(10.57, N/A) (N/A, 0.00, N/A)	661.0	N/A	17.4331 [ 20.0000 ]	87.2% { 89.8% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 198138	(10.66, N/A) (N/A, 0.00, N/A)	944.0	N/A	18.9148 [ 20.0000 ]	94.6% { 90.8% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 786557	(6.50, N/A) (N/A, -0.02, N/A)	1099.2	N/A	10.5694 [ 8.0000 ]	132.1% { 118.4% }			

**ANALYSIS DATA SHEET****LCS**

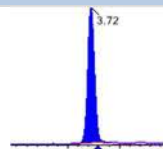
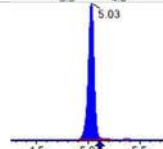
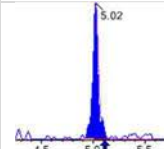
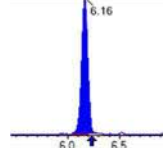
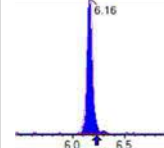
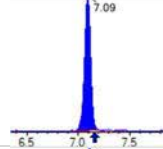
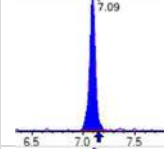
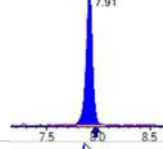
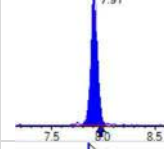
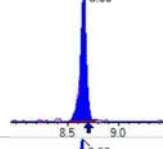
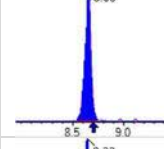
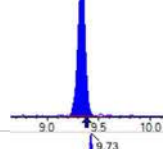
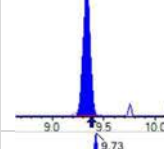
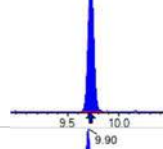
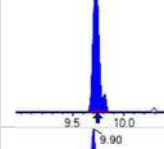
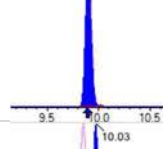
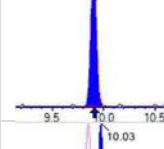
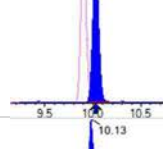
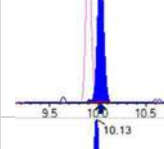
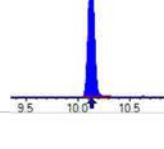
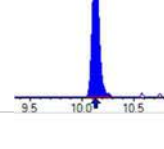
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Matrix:	Water	Laboratory ID:	BBL0295-BS1
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		Prepared:	12/14/22 08:54
Solids:		Analyzed:	12/14/22 20:02
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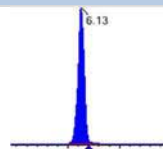
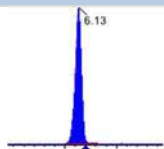
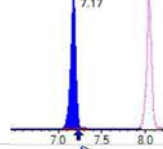
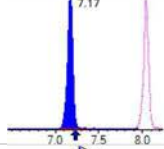
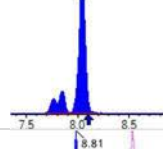
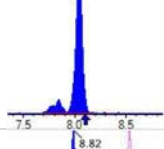
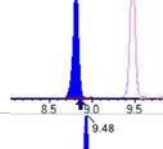
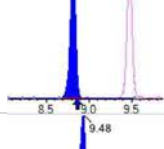
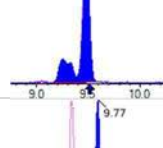
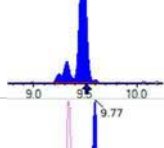
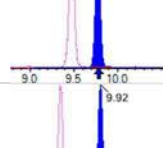
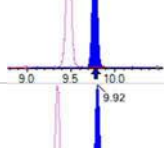
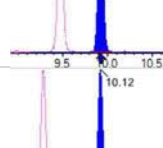
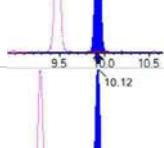
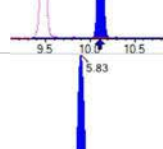
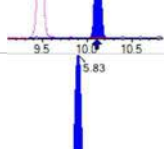
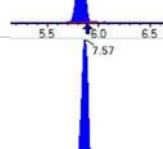
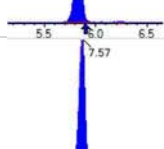
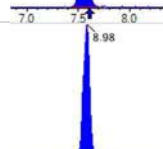
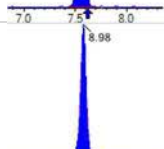

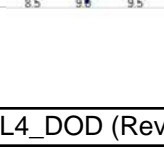
COMPOUND	CONC. (ng/L)	LOQ	DL	Q
PFBA	16.3	1.6	0.21	
PFPEA	8.04	0.80	0.065	
PFHXA	4.08	0.40	0.055	
PFHPA	4.14	0.40	0.041	
PFOA	3.88	0.40	0.15	
PFNA	3.85	0.40	0.082	
PFDA	3.89	0.40	0.10	
PFUnA	3.57	0.40	0.16	
PFDOA	4.29	0.40	0.11	
PFTRDA	3.85	0.40	0.20	
PFTEDA	4.16	0.40	0.20	
PFBS	3.45	0.40	0.037	
PFPEs	3.75	0.40	0.063	
PFHXS	3.54	0.40	0.032	
PFHPS	3.73	0.40	0.051	
PFOS	4.53	0.40	0.064	
PFNS	4.18	0.40	0.12	
PFDS	3.59	0.40	0.15	
PFDOS	3.95	0.40	0.12	
4:2FTS	14.8	1.6	0.29	
6:2FTS	15.2	1.6	0.31	
8:2FTS	15.9	1.6	0.082	
PFOSA	4.11	0.40	0.10	
NMeFOSA	20.2	1.6	0.47	
NEtFOSA	18.4	1.6	0.41	
NMeFOSAA	4.20	0.40	0.11	
NEtFOSAA	4.58	0.40	0.11	
NMeFOSE	16.9	1.6	1.0	
NEtFOSE	16.8	1.6	1.0	
HFPO-DA	8.72	0.88	0.17	

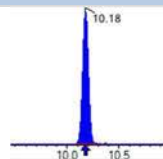
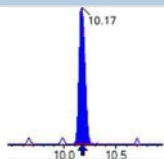
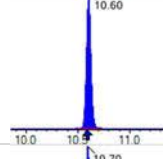
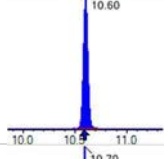
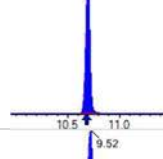
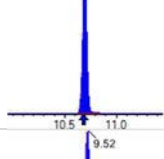
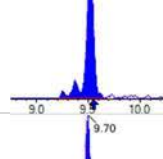
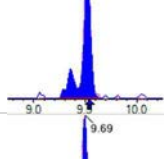
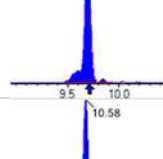
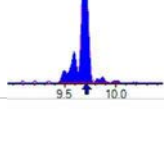
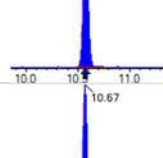
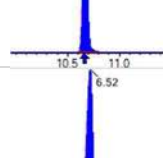
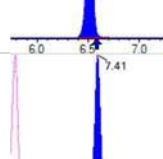
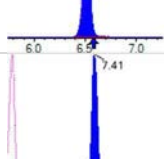
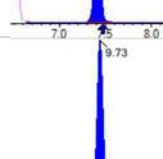
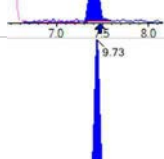
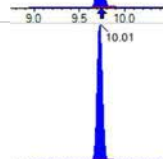
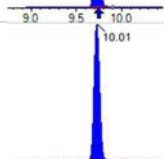
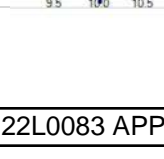
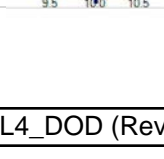
**ANALYSIS DATA SHEET****LCS**

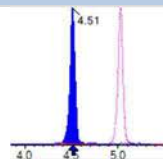
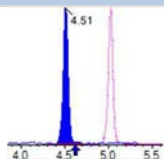
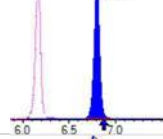
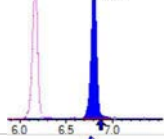
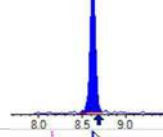
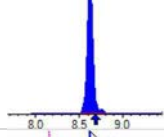
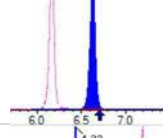
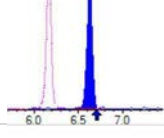
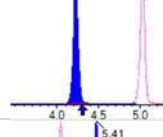
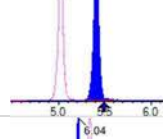
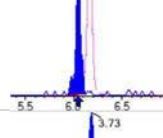
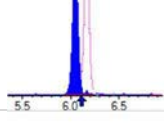
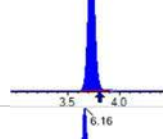
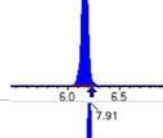
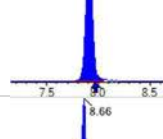
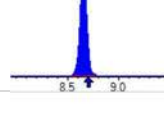
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Matrix:	Water	Laboratory ID:	BBL0295-BS1
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Solids:		Analyzed:	12/14/22 20:02
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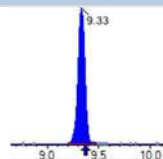
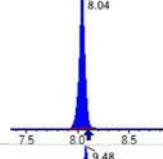
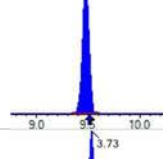
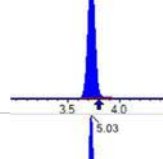
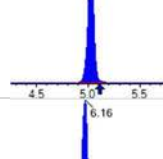
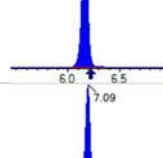
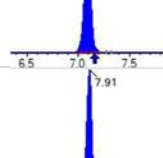
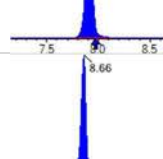
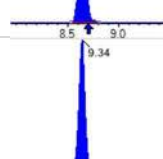
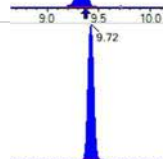

COMPOUND	CONC. (ng/L)	LOQ	DL	Q
ADONA	7.70	0.80	0.12	
PFEESA	7.25	0.80	0.11	
PFMPA	7.94	0.80	0.054	
PFMBA	7.31	0.80	0.091	
NFDHA	6.32	0.80	0.30	
9CL-PF3ONS	7.35	0.80	0.21	
11CL-PF3OUDS	8.36	0.80	0.21	
3:3FTCA	15.6	1.6	0.57	
5:3FTCA	17.0	1.6	0.44	
7:3FTCA	15.0	1.6	0.55	

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(212.9 / 169.0) 262530	(3.72, 1.00) (0.00, N/A, 0.0)	59.5	N/A 0.0 0.0	4.0813 [ 4.0000 ]	102.0%			
PFPeA	(262.9 / 219.0) 192045 (262.9 / 69.0) 2328	(5.03, 1.00) (0.00, N/A, 0.5)	542.4 85.2	0.0121 96.5 103.2	2.0105 [ 2.0000 ]	100.5%			
PFHxA	(313.0 / 269.0) 154130 (313.0 / 119.0) 15693	(6.16, 1.00) (0.00, N/A, 0.2)	432.4 217.9	0.1018 110.0 95.6	1.0212 [ 1.0000 ]	102.1%			
PFHpA	(363.0 / 319.0) 136886 (363.0 / 169.0) 41374	(7.09, 1.00) (0.00, N/A, 0.1)	365.5 258.1	0.3023 97.1 93.3	1.0350 [ 1.0000 ]	103.5%			
PFOA	(413.0 / 369.0) 134028 (413.0 / 169.0) 44523	(7.91, 1.00) (0.00, N/A, 0.3)	347.4 289.2	0.3322 99.0 114.0	0.9709 [ 1.0000 ]	97.1%			
PFNA	(463.0 / 419.0) 99265 (463.0 / 169.0) 23005	(8.66, 1.00) (0.00, N/A, 0.2)	235.3 95.0	0.2318 132.1 113.6	0.9622 [ 1.0000 ]	96.2%			
PFDA	(513.0 / 469.0) 150004 (513.0 / 169.0) 13897	(9.33, 1.00) (0.00, N/A, -0.1)	255.9 523.8	0.0926 92.0 70.7	0.9736 [ 1.0000 ]	97.4%			
PFUnA	(563.0 / 519.0) 196451 (563.0 / 169.0) 17872	(9.73, 1.00) (0.00, N/A, 0.1)	501.0 904.4	0.0910 99.4 104.8	0.8921 [ 1.0000 ]	89.2%			
PFDoA	(613.0 / 569.0) 226073 (613.0 / 169.0) 27925	(9.90, 1.00) (0.00, N/A, -0.2)	815.3 184.1	0.1235 96.4 86.8	1.0722 [ 1.0000 ]	107.2%			
PFTrDA	(663.0 / 619.0) 167354 (663.0 / 169.0) 27270	(10.03, 1.01) (N/A, 0.00, 0.0)	435.3 196.3	0.1629 74.2 70.7	0.9628 [ 1.0000 ]	96.3%			
PFTeDA	(713.0 / 669.0) 146637 (713.0 / 169.0) 23185	(10.13, 1.00) (0.00, N/A, -0.2)	407.1 290.1	0.1581 85.0 90.1	1.0401 [ 1.0000 ]	104.0%			

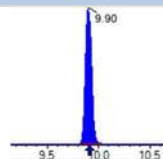
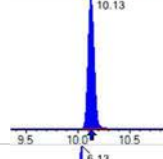
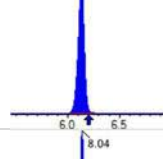
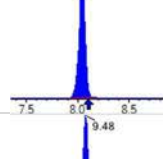
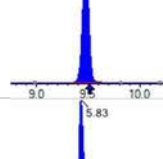
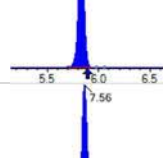
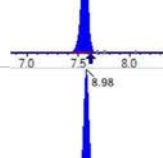
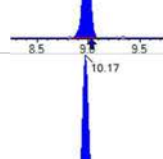
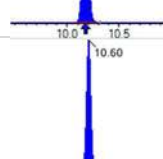
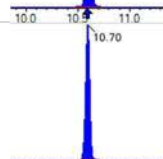
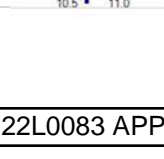
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 191079 (298.9 / 99.0) 130613	(6.13, 1.00) (0.00, N/A, -0.2)	502.7 460.2	0.6836 94.9 102.8	0.8620 [0.8847]	97.4%			
PFPeS	(349.0 / 80.0) 379036 (349.0 / 99.0) 141990	(7.17, 0.89) (N/A, -0.01, 0.1)	673.3 465.0	0.3746 100.0 100.0	0.9368 [0.9384]	99.8%			
PFHxS	(399.0 / 80.0) 327278 (399.0 / 99.0) 123256	(8.04, 1.00) (0.00, N/A, 0.0)	7567288.5 249005.1	0.3766 116.8 108.9	0.8861 [0.9110]	97.3%			
PFHpS	(449.0 / 80.0) 279184 (449.0 / 99.0) 87249	(8.81, 0.93) (N/A, -0.02, -0.1)	505.6 501.6	0.3125 101.8 104.5	0.9323 [0.9514]	98.0%			
PFOS	(499.0 / 80.0) 412522 (499.0 / 99.0) 96633	(9.48, 1.00) (0.00, N/A, 0.1)	106.0 107.0	0.2343 102.1 91.8	1.1336 [0.9275]	122.2%			
PFNS	(549.0 / 80.0) 468517 (549.0 / 99.0) 102684	(9.77, 1.03) (N/A, -0.01, 0.0)	677.2 504.4	0.2192 84.5 92.6	1.0449 [0.9599]	108.9%			
PFDS	(599.0 / 80.0) 529184 (599.0 / 99.0) 113633	(9.92, 1.05) (N/A, 0.00, -0.1)	828.8 1051.8	0.2147 95.4 87.0	0.8978 [0.9631]	93.2%			
PFDoS	(698.9 / 80.0) 294657 (698.9 / 99.0) 68045	(10.12, 1.07) (N/A, 0.00, -0.2)	649.2 343.7	0.2309 114.1 114.5	0.9882 [0.9696]	101.9%			
4:2FTS	(327.0 / 307.0) 287650 (327.0 / 81.0) 181387	(5.83, 1.00) (0.00, N/A, 0.0)	729.5 597.4	0.6306 103.9 110.4	3.7049 [3.7381]	99.1%			
6:2FTS	(427.0 / 407.0) 175789 (427.0 / 81.0) 115899	(7.57, 1.00) (0.00, N/A, -0.2)	522.2 440.6	0.6593 101.5 88.9	3.8049 [3.7962]	100.2%			
8:2FTS	(527.0 / 507.0) 154489 (527.0 / 81.0) 95270	(8.98, 1.00) (0.00, N/A, 0.1)	297.5 244.4	0.6167 98.4 89.6	3.9757 [3.8332]	103.7%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 536715 (498.0 / 478.0) 10693	(10.18, 1.00) (0.00, N/A, 0.4)	827.9 204.2	0.0199 87.5 72.1	1.0268 [1.0000]	102.7%			
NMeFOSA	(511.9 / 219.0) 282406 (511.9 / 169.0) 198447	(10.60, 1.00) (0.00, N/A, 0.0)	1407.4 1439.7	0.7027 110.1 110.1	5.0472 [4.0000]	126.2%			
NEFOSA	(526.0 / 219.0) 284580 (526.0 / 169.0) 291665	(10.70, 1.00) (0.00, N/A, 0.1)	1547.9 938.2	1.0249 96.0 94.4	4.5945 [4.0000]	114.9%			
NMeFOSAA	(570.0 / 419.0) 63852 (570.0 / 483.0) 31584	(9.52, 1.00) (0.00, N/A, -0.1)	152.3 291.3	0.4946 86.2 94.6	1.0507 [1.0000]	105.1%			
NEIFOSAA	(584.0 / 419.0) 83710 (584.0 / 526.0) 44313	(9.70, 1.00) (0.00, N/A, 0.1)	15078.8 1277.7	0.5294 93.4 89.8	1.1451 [1.0000]	114.5%			
NMeFOSE	(616.1 / 59.0) 109668	(10.58, 1.00) (0.01, N/A, 0.0)	682.5	N/A 0.0 0.0	4.2344 [4.0000]	105.9%			
NEtFOSE	(630.0 / 59.0) 27474	(10.67, 1.00) (0.00, N/A, 0.0)	905.2	N/A 0.0 0.0	4.1890 [4.0000]	104.7%			
HFPO-DA	(285.0 / 169.0) 130567 (285.0 / 185.0) 348297	(6.52, 1.00) (0.00, N/A, 0.0)	797.1 632.3	2.6676 101.4 91.0	2.1791 [2.0000]	109.0%			
ADONA	(377.0 / 85.0) 491968 (377.0 / 251.0) 57092	(7.41, 1.14) (N/A, -0.01, 0.0)	795.1 199.1	0.1160 98.4 108.1	1.9254 [1.8854]	102.1%			
9CI-Pf3ONS	(531.0 / 351.0) 1330381 (533.0 / 353.0) 458019	(9.73, 1.49) (N/A, 0.00, 0.0)	735.0 630.6	0.3443 118.7 110.5	1.8363 [1.8665]	98.4%			
11CI-PF3OUDS	(631.0 / 451.0) 970934 (633.0 / 453.0) 269996	(10.01, 1.54) (N/A, -0.01, 0.0)	855.8 545.1	0.2781 88.1 80.3	2.0912 [1.8864]	110.9%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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) 15696 (241.0 / 117.0) 27544	(4.51, 0.90) (N/A, 0.00, 0.0)	405.9 330.2	1.7549 107.1 95.6	3.9098 [4.0000]	97.7%			
5:3FTCA	(341.0 / 236.7) 126513 (341.0 / 217.0) 211843	(6.80, 1.10) (N/A, -0.01, 0.0)	625.4 495.9	1.6484 104.6 106.6	4.2553 [4.0000]	106.4%			
7:3FTCA	(441.0 / 317.0) 141933 (441.0 / 337.0) 110727	(8.62, 1.40) (N/A, -0.01, -0.2)	239.2 380.5	0.7801 93.1 96.2	3.7561 [4.0000]	93.9%			
PFEESA	(315.0 / 135.0) 297752 (315.0 / 83.0) 78777	(6.63, 1.08) (N/A, -0.02, 0.0)	755.1 352.0	0.2646 86.3 86.3	1.8116 [1.7849]	101.5%			
PFMPA	(229.0 / 85.0) 51456	(4.22, 0.84) (N/A, 0.00, 0.0)	763.8	N/A 0.0 0.0	1.9844 [2.0000]	99.2%			
PFMBA	(279.0 / 85.0) 158578	(5.41, 1.08) (N/A, -0.01, 0.0)	720.3	N/A 0.0 0.0	1.8274 [2.0000]	91.4%			
NFDHA	(201.0 / 85.0) 5214 (295.0 / 201.0) 43146	(6.04, 0.98) (N/A, -0.01, -0.1)	92.6 460.4	8.2753 125.6 114.2	1.5797 [2.0000]	79.0%			
13C3_PFBA_IIS	(216.0 / 172.0) 91965	(3.73, N/A) (N/A, 0.01, N/A)	693.5	N/A	0.7580 [1.0000]	75.8% {95.5%}			
13C2_PFHxA_IIS	(315.1 / 270.0) 158318	(6.16, N/A) (N/A, -0.01, N/A)	814.4	N/A	0.8676 [1.0000]	86.8% {90.4%}			
13C4_PFOA_IIS	(417.0 / 372.0) 136612	(7.91, N/A) (N/A, -0.01, N/A)	407.6	N/A	0.7826 [1.0000]	78.3% {94.2%}			
13C5_PFNA_IIS	(468.0 / 423.0) 106531	(8.66, N/A) (N/A, -0.01, N/A)	473.9	N/A	0.7840 [1.0000]	78.4% {90.9%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 110270	(9.33, N/A) (N/A, -0.01, N/A)	348.7	N/A	0.7947 [ 1.0000 ]	79.5% { 84.2% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 269945	(8.04, N/A) (N/A, -0.02, N/A)	995.4	N/A	0.8364 [ 1.0000 ]	83.6% { 95.3% }			
13C4_PFOS_IIS	(502.8 / 79.9) 216273	(9.48, N/A) (N/A, -0.02, N/A)	481.3	N/A	0.8588 [ 1.0000 ]	85.9% { 85.0% }			
13C4_PFBA_EIS	(217.0 / 172.0) 732572	(3.73, N/A) (N/A, 0.01, N/A)	922.0	N/A	10.4502 [ 8.0000 ]	130.6% { 114.4% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 430455	(5.03, N/A) (N/A, 0.00, N/A)	707.4	N/A	4.9097 [ 4.0000 ]	122.7% { 131.8% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 340631	(6.16, N/A) (N/A, -0.01, N/A)	735.2	N/A	2.5530 [ 2.0000 ]	127.7% { 123.1% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 285805	(7.09, N/A) (N/A, -0.01, N/A)	537.4	N/A	2.4676 [ 2.0000 ]	123.4% { 122.9% }			
13C8_PFOA_EIS	(421.0 / 376.0) 276292	(7.91, N/A) (N/A, -0.01, N/A)	551.5	N/A	2.6375 [ 2.0000 ]	131.9% { 119.2% }			
13C9_PFNA_EIS	(472.0 / 427.0) 113162	(8.66, N/A) (N/A, -0.01, N/A)	284.9	N/A	1.3787 [ 1.0000 ]	137.9% { 110.0% }			
13C6_PFDA_EIS	(519.0 / 474.0) 152374	(9.34, N/A) (N/A, -0.01, N/A)	372.3	N/A	1.4408 [ 1.0000 ]	144.1% { 124.8% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 253849	(9.72, N/A) (N/A, -0.01, N/A)	579.7	N/A	1.7477 [ 1.0000 ]	174.8% { 145.3% }			S2,



Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 243472	(9.90, N/A) (N/A, 0.00, N/A)	762.9	N/A	1.3631 [ 1.0000 ]	136.3% { 116.4% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 154274	(10.13, N/A) (N/A, -0.01, N/A)	539.4	N/A	1.3756 [ 1.0000 ]	137.6% { 114.4% }			
13C3_PFBs_EIS	(302.0 / 80.0) 784615	(6.13, N/A) (N/A, -0.01, N/A)	789.7	N/A	2.5261 [ 2.0000 ]	126.3% { 115.4% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 459915	(8.04, N/A) (N/A, -0.02, N/A)	620.1	N/A	2.6311 [ 2.0000 ]	131.6% { 121.9% }			
13C8_PFOS_EIS	(507.0 / 80.0) 661880	(9.48, N/A) (N/A, -0.02, N/A)	453.0	N/A	2.4580 [ 2.0000 ]	122.9% { 111.2% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 95243	(5.83, N/A) (N/A, 0.00, N/A)	585.0	N/A	5.2465 [ 4.0000 ]	131.2% { 127.3% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 113379	(7.56, N/A) (N/A, -0.01, N/A)	617.1	N/A	5.1081 [ 4.0000 ]	127.7% { 112.3% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 109139	(8.98, N/A) (N/A, -0.02, N/A)	297.0	N/A	4.9285 [ 4.0000 ]	123.2% { 112.5% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 1065810	(10.17, N/A) (N/A, 0.00, N/A)	1084.6	N/A	2.6167 [ 2.0000 ]	130.8% { 120.7% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 134510	(10.60, N/A) (N/A, 0.00, N/A)	1165.0	N/A	1.2866 [ 2.0000 ]	64.3% { 57.5% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 134015	(10.70, N/A) (N/A, 0.01, N/A)	842.0	N/A	1.4774 [ 2.0000 ]	73.9% { 70.8% }			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: BBL0295-BS1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (42)  
 Acquired: 2022/12/14 - 20:02

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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) 314469	(9.52, N/A) (N/A, -0.01, N/A)	509.5	N/A	4.9341 [ 4.0000 ]	123.4% { 123.9% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 335918	(9.69, N/A) (N/A, 0.00, N/A)	335.3	N/A	5.8249 [ 4.0000 ]	145.6% { 136.7% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 383939	(10.57, N/A) (N/A, 0.00, N/A)	1121.2	N/A	19.1553 [ 20.0000 ]	95.8% { 94.6% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 193881	(10.67, N/A) (N/A, 0.00, N/A)	1418.5	N/A	19.3044 [ 20.0000 ]	96.5% { 88.8% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 775118	(6.51, N/A) (N/A, -0.01, N/A)	817.0	N/A	9.4842 [ 8.0000 ]	118.6% { 116.6% }			

# ANALYSIS DATA SHEET

## MRL Check

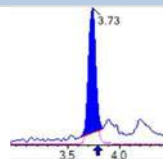
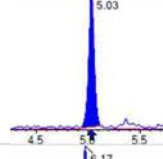
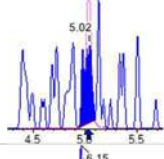
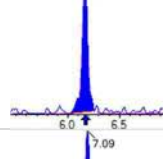
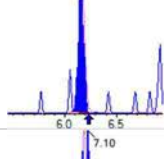
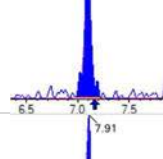
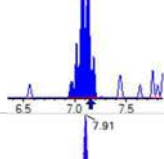
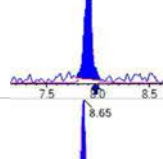
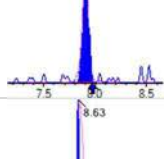
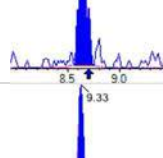
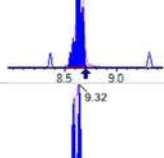
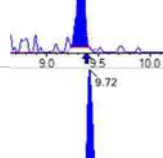
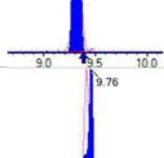
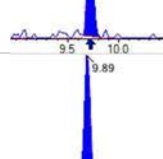
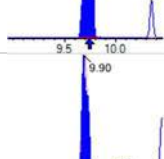
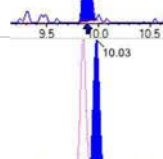
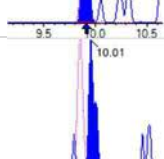
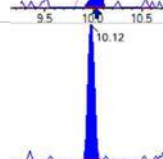
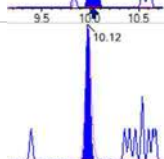
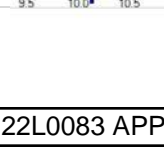
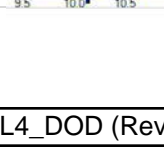
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Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0295-MRL1
Sampled:		File ID:	S2022-12-14A (43)
		Prepared:	12/14/22 08:54
Solids:		Analyzed:	12/14/22 20:15
		Preparation:	1633
Batch:	BBL0295	Dilution:	1
		Sequence:	SB03835
		Calibration:	2251013
Column:	1	Instrument:	Saphira

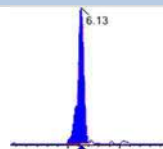
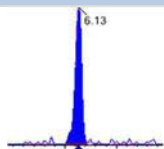
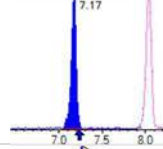
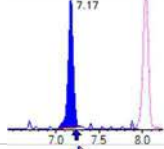
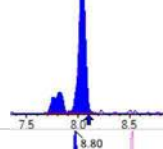
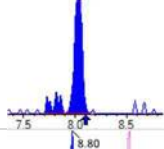
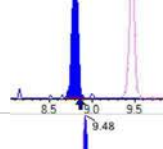
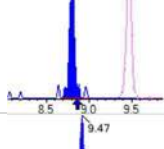
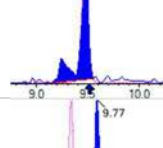
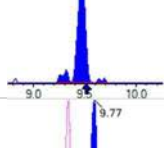
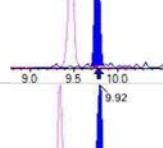
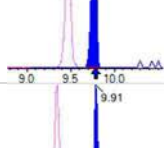
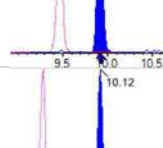
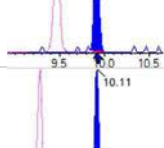
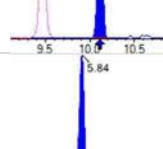
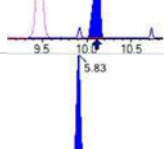
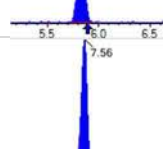
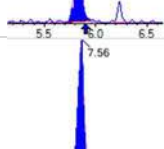
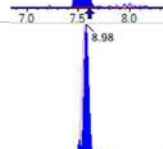
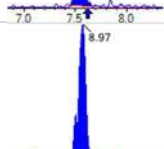

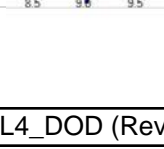
COMPOUND	CONC. (ng/L)	LOQ	DL	Q
PFBA	1.44	1.6	0.21	J
PFPEA	0.857	0.80	0.065	
PFHXA	0.475	0.40	0.055	
PFHPA	0.449	0.40	0.041	
PFOA	0.561	0.40	0.15	
PFNA	0.402	0.40	0.082	IR2
PFDA	0.405	0.40	0.10	IR2
PFUnA	0.336	0.40	0.16	J
PFDOA	0.397	0.40	0.11	J
PFTRDA	0.373	0.40	0.20	J
PFTEDA	0.440	0.40	0.20	
PFBS	0.357	0.40	0.037	J
PFPEs	0.340	0.40	0.063	J
PFHXS	0.330	0.40	0.032	J
PFHPS	0.356	0.40	0.051	J
PFOS	0.885	0.40	0.064	BS2
PFNS	0.353	0.40	0.12	J
PFDS	0.326	0.40	0.15	J
PFDOS	0.344	0.40	0.12	J
4:2FTS	1.39	1.6	0.29	J
6:2FTS	2.55	1.6	0.31	BS2
8:2FTS	1.42	1.6	0.082	IR2, J
PFOSA	0.347	0.40	0.10	J
NMeFOSA	1.40	1.6	0.47	J
NEtFOSA	1.55	1.6	0.41	J
NMeFOSAA	0.445	0.40	0.11	
NEtFOSAA	0.331	0.40	0.11	J
NMeFOSE	1.37	1.6	1.0	J
NEtFOSE	1.53	1.6	1.0	J
HFPO-DA	0.697	1.6	1.0	J

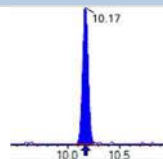
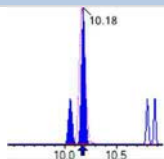
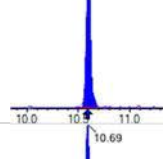
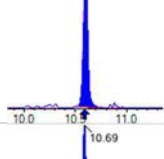
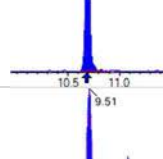
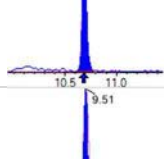
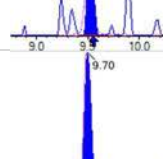
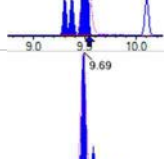
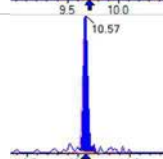
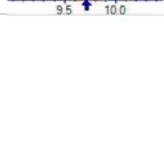
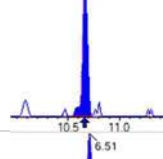
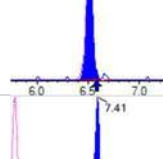
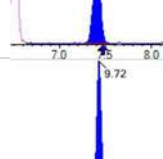
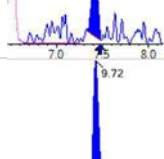
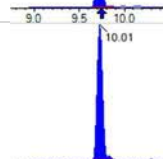
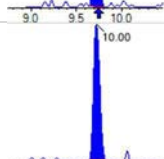
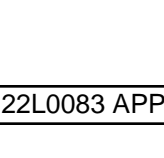
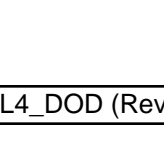
**ANALYSIS DATA SHEET****MRL Check**

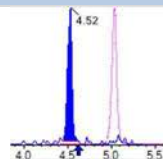
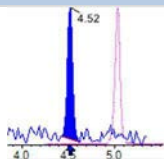
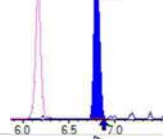
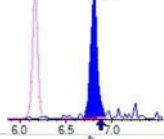
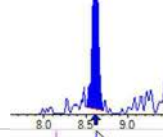
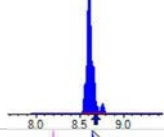
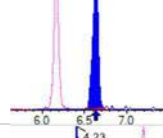
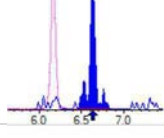
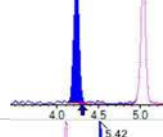
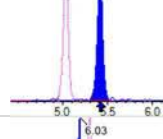
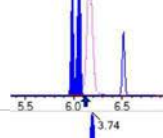
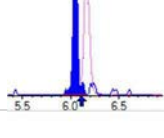
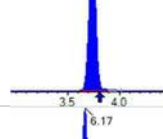
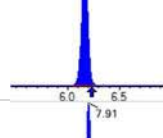
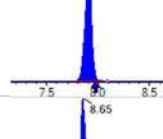
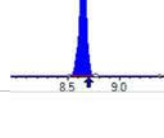
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Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0295-MRL1
Sampled:		Prepared:	12/14/22 08:54
Solids:		Preparation:	1633
Batch:	BBL0295	Sequence:	SB03835
Column:	1	Calibration:	2251013
			Instrument: Saphira

COMPOUND	CONC. (ng/L)	LOQ	DL	Q
ADONA	0.768	0.80	0.12	J
PFEESA	0.702	0.80	0.11	J
PFMPA	0.661	0.80	0.054	J
PFMBA	0.712	0.80	0.091	J
NFDHA	ND	0.80	0.30	IR2, U
9CL-PF3ONS	0.778	0.80	0.21	J
11CL-PF3OUDS	0.771	0.80	0.21	J
3:3FTCA	1.64	1.6	0.57	
5:3FTCA	1.95	1.6	0.44	
7:3FTCA	1.74	1.6	0.55	

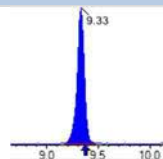
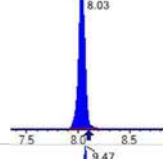
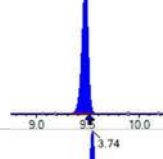
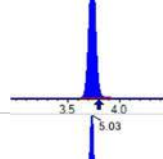
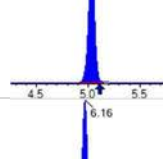
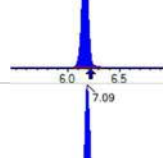
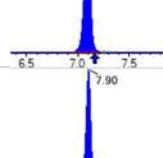
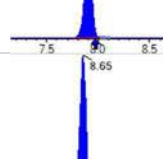
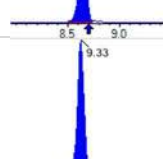
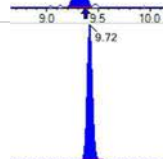

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 20771	(3.73, 1.00) (0.00, N/A, 0.0)	31.5	N/A 0.0 0.0	0.3588 [0.4000]	89.7%			
PFPeA	(262.9 / 219.0) 16487 (262.9 / 69.0) 203	(5.03, 1.00) (0.00, N/A, 0.9)	143.1 4.8	0.0123 98.0 104.8	0.2142 [0.2000]	107.1%			
PFHxA	(313.0 / 269.0) 14637 (313.0 / 119.0) 1182	(6.17, 1.00) (0.00, N/A, 0.8)	80.6 32.1	0.0807 87.2 75.8	0.1189 [0.1000]	118.9%			
PFHpA	(363.0 / 319.0) 13538 (363.0 / 169.0) 3483	(7.09, 1.00) (0.00, N/A, -0.3)	52.5 35.9	0.2573 82.7 79.4	0.1122 [0.1000]	112.2%			
PFOA	(413.0 / 369.0) 18027 (413.0 / 169.0) 4894	(7.91, 1.00) (0.00, N/A, 0.1)	66.3 73.0	0.2715 80.9 93.2	0.1403 [0.1000]	140.3%			QC,
PFNA	(463.0 / 419.0) 8906 (463.0 / 169.0) 3073	(8.65, 1.00) (0.00, N/A, 1.3)	41.1 45.6	0.3451 196.6 169.2	0.1006 [0.1000]	100.6%			IR2,
PFDA	(513.0 / 469.0) 13850 (513.0 / 169.0) 2184	(9.33, 1.00) (0.00, N/A, 0.8)	45.1 433.5	0.1577 156.7 120.4	0.1014 [0.1000]	101.4%			IR2,
PFUnA	(563.0 / 519.0) 17764 (563.0 / 169.0) 1825	(9.72, 1.00) (0.00, N/A, -2.5)	74.3 1148.2	0.1027 112.2 118.3	0.0839 [0.1000]	83.9%			
PFDoA	(613.0 / 569.0) 18403 (613.0 / 169.0) 3101	(9.89, 1.00) (0.00, N/A, -0.2)	77.7 25.2	0.1685 131.5 118.4	0.0992 [0.1000]	99.2%			
PFTrDA	(663.0 / 619.0) 14269 (663.0 / 169.0) 1905	(10.03, 1.01) (N/A, 0.00, 1.4)	63.0 36.3	0.1335 60.8 57.9	0.0933 [0.1000]	93.3%			
PFTeDA	(713.0 / 669.0) 16113 (713.0 / 169.0) 1588	(10.12, 1.00) (0.00, N/A, 0.1)	113.1 20.2	0.0985 53.0 56.2	0.1099 [0.1000]	109.9%			

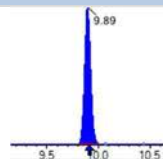
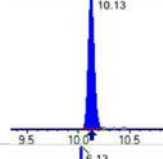
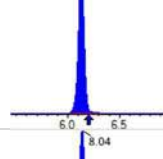
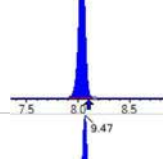
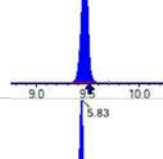
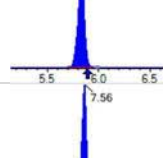
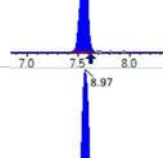
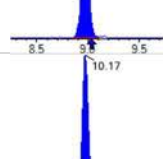
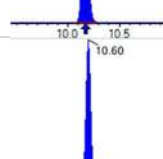
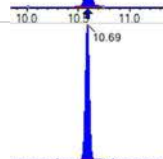
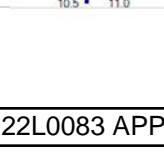
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 17268 (298.9 / 99.0) 12166	(6.13, 1.00) (0.00, N/A, -0.4)	196.2 109.4	0.7046 97.8 106.0	0.0892 [0.0885]	100.8%			
PFPeS	(349.0 / 80.0) 30693 (349.0 / 99.0) 11784	(7.17, 0.89) (N/A, -0.01, 0.1)	284.7 121.8	0.3839 102.5 102.5	0.0851 [0.0938]	90.6%			
PFHxS	(399.0 / 80.0) 27175 (399.0 / 99.0) 9988	(8.04, 1.00) (0.00, N/A, 0.5)	107431.6 206.4	0.3675 113.9 106.3	0.0825 [0.0911]	90.6%			
PFHpS	(449.0 / 80.0) 25400 (449.0 / 99.0) 9151	(8.80, 0.93) (N/A, -0.03, 0.1)	177.7 83.8	0.3603 117.4 120.5	0.0889 [0.0951]	93.4%			
PFOS	(499.0 / 80.0) 76861 (499.0 / 99.0) 18225	(9.48, 1.00) (0.01, N/A, 0.3)	75.9 47576.6	0.2371 103.3 93.0	0.2214 [0.0927]	238.7%			QC,
PFNS	(549.0 / 80.0) 37791 (549.0 / 99.0) 11339	(9.77, 1.03) (N/A, -0.01, 0.0)	116.1 138.3	0.3000 115.7 126.7	0.0883 [0.0960]	92.0%			
PFDS	(599.0 / 80.0) 45899 (599.0 / 99.0) 10280	(9.92, 1.05) (N/A, -0.01, 0.5)	252.9 90.9	0.2240 99.5 90.8	0.0816 [0.0963]	84.7%			
PFDoS	(698.9 / 80.0) 24441 (698.9 / 99.0) 6671	(10.12, 1.07) (N/A, 0.00, 0.3)	364.4 473.8	0.2729 134.8 135.3	0.0859 [0.0970]	88.6%			
4:2FTS	(327.0 / 307.0) 23661 (327.0 / 81.0) 13922	(5.84, 1.00) (0.00, N/A, 0.2)	392.3 125.9	0.5884 97.0 103.0	0.3480 [0.3738]	93.1%			
6:2FTS	(427.0 / 407.0) 27977 (427.0 / 81.0) 20779	(7.56, 1.00) (0.00, N/A, 0.2)	217.3 137.2	0.7427 114.3 100.1	0.6372 [0.3796]	167.8%			QC,
8:2FTS	(527.0 / 507.0) 13587 (527.0 / 81.0) 12784	(8.98, 1.00) (0.01, N/A, 0.5)	49.6 270.0	0.9409 150.1 136.8	0.3561 [0.3833]	92.9%			IR2,

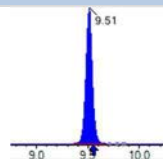
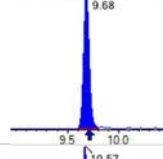
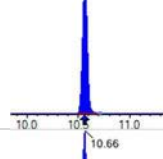
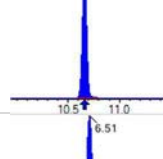
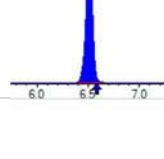
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 35362 (498.0 / 478.0) 1228	(10.17, 1.00) (0.00, N/A, -0.5)	213.8 120.9	0.0347 152.6 125.7	0.0868 [0.1000]	86.8%			
NMeFOSA	(511.9 / 219.0) 14553 (511.9 / 169.0) 11807	(10.60, 1.00) (0.00, N/A, -0.1)	358.1 161.4	0.8113 127.2 127.1	0.3492 [0.4000]	87.3%			
NEIFOSA	(526.0 / 219.0) 15860 (526.0 / 169.0) 15526	(10.69, 1.00) (0.00, N/A, 0.1)	380.7 164.8	0.9790 91.7 90.1	0.3866 [0.4000]	96.6%			
NMeFOSAA	(570.0 / 419.0) 6018 (570.0 / 483.0) 1934	(9.51, 1.00) (0.00, N/A, 0.4)	93.2 113.0	0.3213 56.0 61.5	0.1114 [0.1000]	111.4%			
NEIFOSAA	(584.0 / 419.0) 5557 (584.0 / 526.0) 2896	(9.70, 1.00) (0.01, N/A, 0.8)	177438.5 201.4	0.5210 91.9 88.4	0.0827 [0.1000]	82.7%			
NMeFOSE	(616.1 / 59.0) 7099	(10.57, 1.00) (0.00, N/A, 0.0)	90.6	N/A 0.0 0.0	0.3414 [0.4000]	85.3%			
NEtFOSE	(630.0 / 59.0) 2086	(10.67, 1.00) (0.01, N/A, 0.0)	91.7	N/A 0.0 0.0	0.3837 [0.4000]	95.9%			
HFPO-DA	(285.0 / 169.0) 9086 (285.0 / 185.0) 26987	(6.51, 1.00) (0.00, N/A, 0.0)	181.5 246.2	2.9701 112.9 101.3	0.1742 [0.2000]	87.1%			
ADONA	(377.0 / 85.0) 42711 (377.0 / 251.0) 4569	(7.41, 1.14) (N/A, -0.02, -0.1)	385.4 27.3	0.1070 90.7 99.6	0.1920 [0.1885]	101.8%			
9CI-Pf3ONS	(531.0 / 351.0) 122776 (533.0 / 353.0) 35697	(9.72, 1.49) (N/A, -0.01, 0.1)	419.8 85.2	0.2907 100.3 93.3	0.1946 [0.1867]	104.3%			
11CI-PF3OUDS	(631.0 / 451.0) 77968 (633.0 / 453.0) 25300	(10.01, 1.54) (N/A, -0.01, 0.2)	745.7 137.4	0.3245 102.9 93.7	0.1929 [0.1886]	102.2%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 1328 (241.0 / 117.0) 2138	(4.52, 0.90) (N/A, 0.01, 0.3)	96.3 36.7	1.6102 98.2 87.8	0.4105 [0.4000]	102.6%			
5:3FTCA	(341.0 / 236.7) 11988 (341.0 / 217.0) 17066	(6.80, 1.10) (N/A, -0.02, -0.3)	147.4 73.2	1.4237 90.3 92.0	0.4865 [0.4000]	121.6%			
7:3FTCA	(441.0 / 317.0) 13426 (441.0 / 337.0) 10243	(8.61, 1.40) (N/A, -0.02, 0.3)	29.7 463.7	0.7629 91.1 94.1	0.4355 [0.4000]	108.9%			
PFEESA	(315.0 / 135.0) 23543 (315.0 / 83.0) 5821	(6.63, 1.08) (N/A, -0.01, 0.2)	240.1 102.0	0.2473 80.6 80.6	0.1756 [0.1785]	98.4%			
PFMPA	(229.0 / 85.0) 3455	(4.23, 0.84) (N/A, 0.01, 0.0)	182.2	N/A 0.0 0.0	0.1653 [0.2000]	82.7%			
PFMBA	(279.0 / 85.0) 12441	(5.42, 1.08) (N/A, 0.00, 0.0)	293.3	N/A 0.0 0.0	0.1779 [0.2000]	89.0%			
NFDHA	(201.0 / 85.0) 351 (295.0 / 201.0) 3872	(6.03, 0.98) (N/A, -0.02, -1.1)	7118.9 110.1	11.0316 167.5 152.2	0.0166 [0.2000]	8.3%			QC, IR2,
13C3_PFBA_IIS	(216.0 / 172.0) 81763	(3.74, N/A) (N/A, 0.02, N/A)	731.5	N/A	0.6739 [1.0000]	67.4% {84.9%}			
13C2_PFHxA_IIS	(315.1 / 270.0) 142970	(6.17, N/A) (N/A, -0.01, N/A)	670.8	N/A	0.7835 [1.0000]	78.3% {81.6%}			
13C4_PFOA_IIS	(417.0 / 372.0) 124634	(7.91, N/A) (N/A, -0.02, N/A)	672.2	N/A	0.7140 [1.0000]	71.4% {86.0%}			
13C5_PFNA_IIS	(468.0 / 423.0) 112412	(8.65, N/A) (N/A, -0.02, N/A)	312.0	N/A	0.8273 [1.0000]	82.7% {95.9%}			



Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 122248	(9.33, N/A) (N/A, -0.02, N/A)	295.4	N/A	0.8810 [ 1.0000 ]	88.1% { 93.3% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 247602	(8.03, N/A) (N/A, -0.02, N/A)	1045.5	N/A	0.7672 [ 1.0000 ]	76.7% { 87.4% }			
13C4_PFOS_IIS	(502.8 / 79.9) 207509	(9.47, N/A) (N/A, -0.02, N/A)	511.2	N/A	0.8240 [ 1.0000 ]	82.4% { 81.5% }			
13C4_PFBA_EIS	(217.0 / 172.0) 659212	(3.74, N/A) (N/A, 0.02, N/A)	1153.9	N/A	10.5771 [ 8.0000 ]	132.2% { 102.9% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 346883	(5.03, N/A) (N/A, 0.01, N/A)	627.8	N/A	4.3813 [ 4.0000 ]	109.5% { 106.2% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 277928	(6.16, N/A) (N/A, -0.01, N/A)	773.3	N/A	2.3067 [ 2.0000 ]	115.3% { 100.4% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 260777	(7.09, N/A) (N/A, -0.02, N/A)	744.2	N/A	2.4932 [ 2.0000 ]	124.7% { 112.2% }			
13C8_PFOA_EIS	(421.0 / 376.0) 257167	(7.90, N/A) (N/A, -0.02, N/A)	694.4	N/A	2.6909 [ 2.0000 ]	134.5% { 110.9% }			
13C9_PFNA_EIS	(472.0 / 427.0) 97111	(8.65, N/A) (N/A, -0.02, N/A)	202.1	N/A	1.1213 [ 1.0000 ]	112.1% { 94.4% }			
13C6_PFDA_EIS	(519.0 / 474.0) 135141	(9.33, N/A) (N/A, -0.02, N/A)	228.5	N/A	1.1526 [ 1.0000 ]	115.3% { 110.7% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 244055	(9.72, N/A) (N/A, -0.01, N/A)	953.7	N/A	1.5156 [ 1.0000 ]	151.6% { 139.7% }			S2,

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 214270	(9.89, N/A) (N/A, -0.01, N/A)	426.0	N/A	1.0821 [ 1.0000 ]	108.2% { 102.5% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 160431	(10.13, N/A) (N/A, -0.01, N/A)	357.2	N/A	1.2903 [ 1.0000 ]	129.0% { 118.9% }			
13C3_PFBs_EIS	(302.0 / 80.0) 685324	(6.13, N/A) (N/A, -0.01, N/A)	689.3	N/A	2.4055 [ 2.0000 ]	120.3% { 100.8% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 410193	(8.04, N/A) (N/A, -0.02, N/A)	970.0	N/A	2.5584 [ 2.0000 ]	127.9% { 108.7% }			
13C8_PFOS_EIS	(507.0 / 80.0) 631567	(9.47, N/A) (N/A, -0.02, N/A)	525.9	N/A	2.4445 [ 2.0000 ]	122.2% { 106.1% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 83416	(5.83, N/A) (N/A, 0.00, N/A)	518.5	N/A	5.0097 [ 4.0000 ]	125.2% { 111.5% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 107754	(7.56, N/A) (N/A, -0.02, N/A)	602.4	N/A	5.2927 [ 4.0000 ]	132.3% { 106.8% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 107172	(8.97, N/A) (N/A, -0.03, N/A)	359.7	N/A	5.2763 [ 4.0000 ]	131.9% { 110.5% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 830472	(10.17, N/A) (N/A, 0.00, N/A)	966.0	N/A	2.1251 [ 2.0000 ]	106.3% { 94.0% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 100191	(10.60, N/A) (N/A, 0.00, N/A)	648.0	N/A	0.9988 [ 2.0000 ]	49.9% { 42.8% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 88769	(10.69, N/A) (N/A, 0.00, N/A)	688.1	N/A	1.0199 [ 2.0000 ]	51.0% { 46.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 279603	(9.51, N/A) (N/A, -0.02, N/A)	375.0	N/A	4.5723 [ 4.0000 ]	114.3% { 110.2% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 308740	(9.68, N/A) (N/A, -0.01, N/A)	350.0	N/A	5.5797 [ 4.0000 ]	139.5% { 125.7% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 308239	(10.57, N/A) (N/A, 0.00, N/A)	759.8	N/A	16.0281 [ 20.0000 ]	80.1% { 75.9% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 160707	(10.66, N/A) (N/A, 0.00, N/A)	1140.5	N/A	16.6772 [ 20.0000 ]	83.4% { 73.6% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 674930	(6.51, N/A) (N/A, -0.01, N/A)	642.2	N/A	9.1448 [ 8.0000 ]	114.3% { 101.6% }			

# ANALYSIS DATA SHEET

Blank

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0300-BLK1
Sampled:		Prepared:	12/14/22 11:09
Solids:		Preparation:	1633
Batch:	BBL0300	Sequence:	SB03835
Column:	1	Calibration:	2251013
		Instrument:	Saphira
		File ID:	S2022-12-14A (48)
		Analyzed:	12/14/22 21:18
		Dilution:	1

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
PFBA	8.0 U	16	8.0	2.1	U
PFPEA	4.0 U	8.0	4.0	0.65	U
PFHXA	2.0 U	4.0	2.0	0.55	U
PFHPA	2.0 U	4.0	2.0	0.41	U
PFOA	2.0 U	4.0	2.0	1.5	U
PFNA	2.0 U	4.0	2.0	0.82	U
PFDA	2.0 U	4.0	2.0	1.0	U
PFUnA	2.0 U	4.0	2.0	1.6	U
PFDOA	2.0 U	4.0	2.0	1.1	U
PFTRDA	3.0 U	4.0	3.0	2.0	U
PFTEDA	2.0 U	4.0	2.0	2.0	U
PFBS	2.0 U	4.0	2.0	0.37	U
PFPEs	2.0 U	4.0	2.0	0.63	U
PFHXS	2.0 U	4.0	2.0	0.32	U
PFHPS	2.0 U	4.0	2.0	0.51	U
PFOS	7.88	4.0	2.0	0.64	B
PFNS	2.0 U	4.0	2.0	1.2	U
PFDS	2.0 U	4.0	2.0	1.5	U
PFDOS	2.0 U	4.0	2.0	1.2	U
4:2FTS	8.0 U	16	8.0	2.9	U
6:2FTS	8.0 U	16	8.0	3.1	U
8:2FTS	8.0 U	16	8.0	0.82	U
PFOSA	5.43	4.0	2.0	1.0	B
NMeFOSA	8.0 U	16	8.0	4.7	U
NEtFOSA	8.0 U	16	8.0	4.1	U
NMeFOSAA	2.0 U	4.0	2.0	1.1	U
NEtFOSAA	2.0 U	4.0	2.0	1.1	U
NMeFOSE	12 U	16	12	10	U
NEtFOSE	12 U	16	12	10	U
HFPO-DA	4.0 U	8.0	4.0	1.7	U

**ANALYSIS DATA SHEET**

Blank

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0300-BLK1
Sampled:		Prepared:	12/14/22 11:09
Solids:		Preparation:	1633
Batch:	BBL0300	Sequence:	SB03835
Column:	1	Calibration:	2251013
		File ID:	S2022-12-14A (48)
		Analyzed:	12/14/22 21:18
		Dilution:	1
		Instrument:	Saphira

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
ADONA	4.0 U	8.0	4.0	1.2	U
PFEESA	4.0 U	8.0	4.0	1.1	U
PFMPA	4.0 U	8.0	4.0	0.54	U
PFMBA	4.0 U	8.0	4.0	0.91	U
NFDHA	4.0 U	8.0	4.0	3.0	U
9CL-PF3ONS	4.0 U	8.0	4.0	2.1	U
11CL-PF3OUDS	4.0 U	8.0	4.0	2.1	U
3:3FTCA	8.0 U	16	8.0	5.7	U
5:3FTCA	8.0 U	16	8.0	4.4	U
7:3FTCA	8.0 U	16	8.0	5.5	U



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: BBL0300-BLK1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (48)  
 Acquired: 2022/12/14 - 21:18

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	(212.9 / 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	(262.9 / 219.0) N/A (262.9 / 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) 4868 (413.0 / 169.0) 1381	(7.91, 1.00) (0.00, N/A, 0.9)	21.5 45.0	0.2836 84.5 97.4	0.0354	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			
PFTrDA	(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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: BBL0300-BLK1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (48)  
 Acquired: 2022/12/14 - 21:18

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	( 298.9 / 80.0 ) N/A ( 298.9 / 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 ) 76088 ( 499.0 / 99.0 ) 19603	( 9.47 , 1.00 ) ( 0.00 , N/A , -0.2 )	125.0 730.4	0.2576 112.3 101.0	0.1970	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	( 698.9 / 80.0 ) N/A ( 698.9 / 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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: BBL0300-BLK1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (48)  
 Acquired: 2022/12/14 - 21:18

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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 ) 60350 ( 498.0 / 478.0 ) 2133	( 10.17 , 1.00 ) ( -0.01 , N/A , -0.8)	347.0 231.0	0.0353 155.2 127.9	0.1358	N/A			
NMeFOSA	( 511.9 / 219.0 ) N/A ( 511.9 / 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 ) 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	( 616.1 / 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			
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			



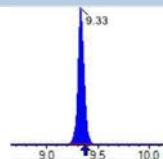
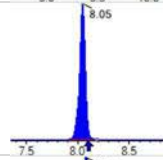
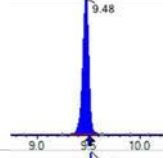
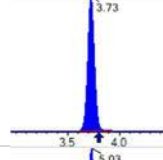
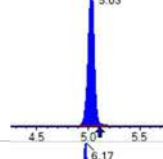
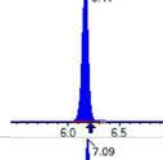
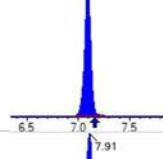
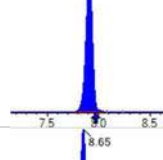
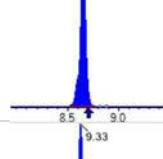
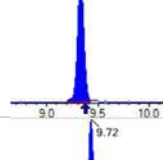
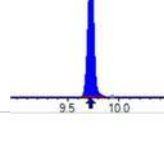


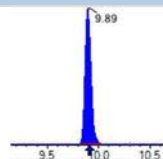
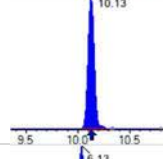
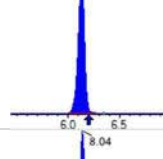
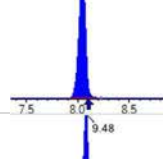
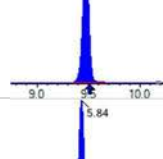
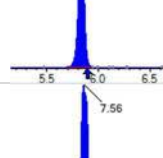
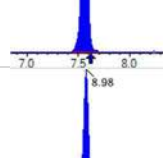
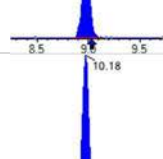
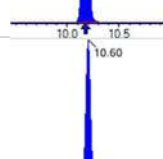
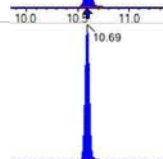
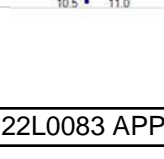
Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: BBL0300-BLK1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (48)  
 Acquired: 2022/12/14 - 21:18

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	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(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) 86068	(3.73, N/A) (N/A, 0.01, N/A)	766.9	N/A	0.7094 [ 1.0000 ]	70.9% { 89.4% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 146952	(6.17, N/A) (N/A, -0.01, N/A)	557.4	N/A	0.8053 [ 1.0000 ]	80.5% { 83.9% }			
13C4_PFOA_IIS	(417.0 / 372.0) 143093	(7.91, N/A) (N/A, -0.01, N/A)	493.1	N/A	0.8197 [ 1.0000 ]	82.0% { 98.7% }			
13C5_PFNA_IIS	(468.0 / 423.0) 108950	(8.65, N/A) (N/A, -0.02, N/A)	405.0	N/A	0.8018 [ 1.0000 ]	80.2% { 93.0% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 121950	(9.33, N/A) (N/A, -0.01, N/A)	113099.3	N/A	0.8789 [ 1.0000 ]	87.9% { 93.1% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 250032	(8.05, N/A) (N/A, -0.01, N/A)	651.2	N/A	0.7747 [ 1.0000 ]	77.5% { 88.3% }			
13C4_PFOS_IIS	(502.8 / 79.9) 220509	(9.48, N/A) (N/A, -0.02, N/A)	452.1	N/A	0.8757 [ 1.0000 ]	87.6% { 86.6% }			
13C4_PFBA_EIS	(217.0 / 172.0) 709507	(3.73, N/A) (N/A, 0.01, N/A)	827.7	N/A	10.8145 [ 8.0000 ]	135.2% { 110.8% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 397656	(5.03, N/A) (N/A, 0.00, N/A)	766.1	N/A	4.8865 [ 4.0000 ]	122.2% { 121.7% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 342153	(6.17, N/A) (N/A, -0.01, N/A)	621.0	N/A	2.7628 [ 2.0000 ]	138.1% { 123.6% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 261180	(7.09, N/A) (N/A, -0.01, N/A)	598.0	N/A	2.4294 [ 2.0000 ]	121.5% { 112.4% }			
13C8_PFOA_EIS	(421.0 / 376.0) 275369	(7.91, N/A) (N/A, -0.01, N/A)	718.1	N/A	2.5097 [ 2.0000 ]	125.5% { 118.8% }			
13C9_PFNA_EIS	(472.0 / 427.0) 106385	(8.65, N/A) (N/A, -0.01, N/A)	390.5	N/A	1.2674 [ 1.0000 ]	126.7% { 103.4% }			
13C6_PFDA_EIS	(519.0 / 474.0) 130419	(9.33, N/A) (N/A, -0.02, N/A)	424.9	N/A	1.1151 [ 1.0000 ]	111.5% { 106.8% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 178973	(9.72, N/A) (N/A, -0.01, N/A)	440.5	N/A	1.1142 [ 1.0000 ]	111.4% { 102.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 231948	(9.89, N/A) (N/A, -0.01, N/A)	593.8	N/A	1.1742 [ 1.0000 ]	117.4% { 110.9% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 148866	(10.13, N/A) (N/A, -0.01, N/A)	434.3	N/A	1.2002 [ 1.0000 ]	120.0% { 110.4% }			
13C3_PFBs_EIS	(302.0 / 80.0) 754521	(6.13, N/A) (N/A, -0.01, N/A)	658.1	N/A	2.6227 [ 2.0000 ]	131.1% { 110.9% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 397647	(8.04, N/A) (N/A, -0.02, N/A)	817.0	N/A	2.4561 [ 2.0000 ]	122.8% { 105.4% }			
13C8_PFOS_EIS	(507.0 / 80.0) 702387	(9.48, N/A) (N/A, -0.02, N/A)	442.6	N/A	2.5584 [ 2.0000 ]	127.9% { 118.0% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 86847	(5.84, N/A) (N/A, 0.00, N/A)	464.4	N/A	5.1651 [ 4.0000 ]	129.1% { 116.1% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 98563	(7.56, N/A) (N/A, -0.01, N/A)	681.5	N/A	4.7942 [ 4.0000 ]	119.9% { 97.7% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 107954	(8.98, N/A) (N/A, -0.02, N/A)	469.3	N/A	5.2632 [ 4.0000 ]	131.6% { 111.3% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 905824	(10.18, N/A) (N/A, 0.00, N/A)	916.8	N/A	2.1812 [ 2.0000 ]	109.1% { 102.6% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 147813	(10.60, N/A) (N/A, 0.00, N/A)	840.1	N/A	1.3866 [ 2.0000 ]	69.3% { 63.2% }			
D5_NeIFOSA_EIS	(531.1 / 169.0) 133287	(10.69, N/A) (N/A, 0.00, N/A)	1152.8	N/A	1.4412 [ 2.0000 ]	72.1% { 70.4% }			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: BBL0300-BLK1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (48)  
 Acquired: 2022/12/14 - 21:18

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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) 290878	(9.51, N/A) (N/A, -0.02, N/A)	401.1	N/A	4.4763 [ 4.0000 ]	111.9% { 114.6% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 293560	(9.69, N/A) (N/A, -0.01, N/A)	284.8	N/A	4.9926 [ 4.0000 ]	124.8% { 119.5% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 370658	(10.57, N/A) (N/A, 0.00, N/A)	1013.1	N/A	18.1375 [ 20.0000 ]	90.7% { 91.3% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 211377	(10.66, N/A) (N/A, 0.00, N/A)	865.2	N/A	20.6423 [ 20.0000 ]	103.2% { 96.9% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 762921	(6.51, N/A) (N/A, -0.01, N/A)	827.1	N/A	10.0569 [ 8.0000 ]	125.7% { 114.8% }			

## ANALYSIS DATA SHEET

## LCS

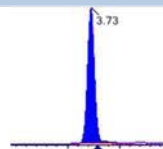
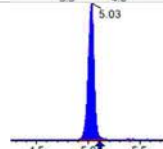
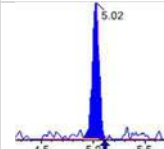
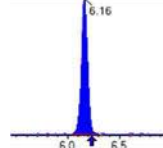
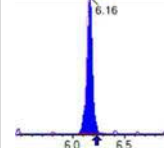
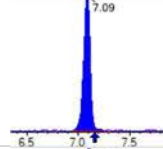
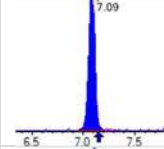
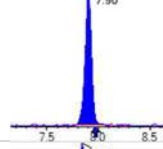
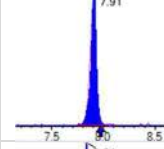
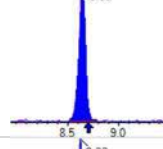
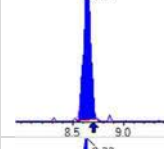
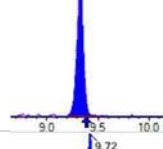
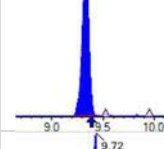
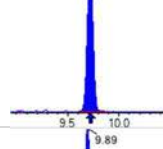
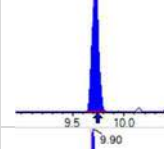
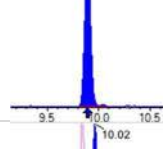
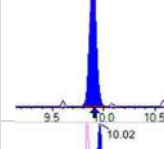
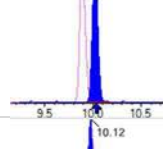
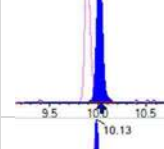
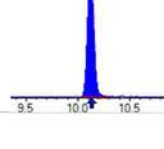
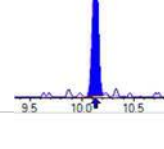
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Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0300-BS1
Sampled:		File ID:	S2022-12-14A (49)
Solids:		Prepared:	12/14/22 11:09
Batch:	BBL0300	Analyzed:	12/14/22 21:31
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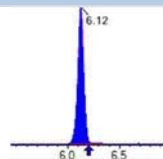
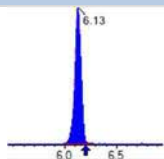
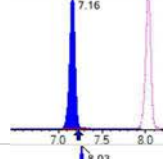
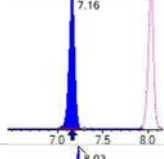
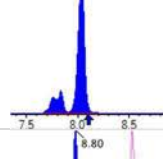
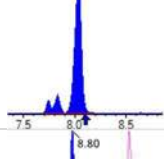
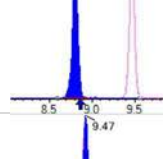
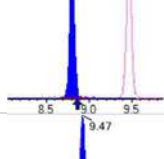
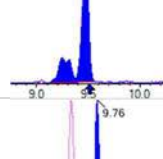
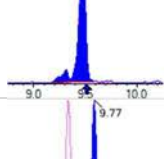
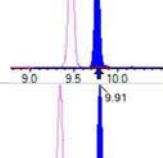
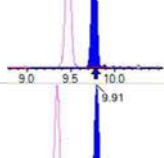
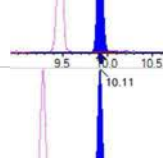
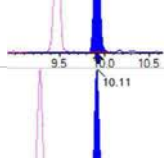
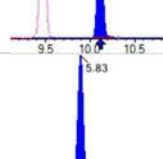
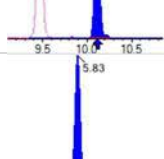
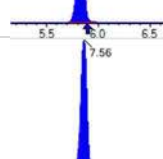
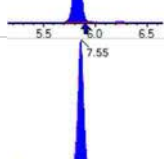
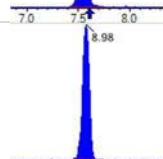
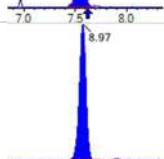
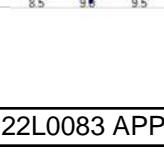
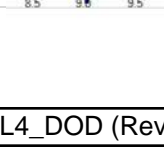
COMPOUND	CONC. (ng/L)	LOQ	DL	Q
PFBA	173	16	2.1	
PFPEA	85.1	8.0	0.65	
PFHXA	41.7	4.0	0.55	
PFHPA	44.6	4.0	0.41	
PFOA	42.2	4.0	1.5	
PFNA	49.8	4.0	0.82	
PFDA	36.8	4.0	1.0	
PFUnA	37.4	4.0	1.6	
PFDOA	42.1	4.0	1.1	
PFTRDA	40.1	4.0	2.0	
PFTEDA	44.2	4.0	2.0	
PFBS	35.6	4.0	0.37	
PFPEs	37.2	4.0	0.63	
PFHXS	34.3	4.0	0.32	
PFHPS	39.4	4.0	0.51	
PFOS	44.9	4.0	0.64	
PFNS	39.2	4.0	1.2	
PFDS	36.5	4.0	1.5	
PFDOS	39.3	4.0	1.2	
4:2FTS	151	16	2.9	
6:2FTS	167	16	3.1	
8:2FTS	185	16	0.82	
PFOSA	47.9	4.0	1.0	
NMeFOSA	222	16	4.7	
NEtFOSA	218	16	4.1	
NMeFOSAA	46.2	4.0	1.1	
NEtFOSAA	46.9	4.0	1.1	
NMeFOSE	176	16	10	
NEtFOSE	161	16	10	
HFPO-DA	83.2	8.0	1.7	

**ANALYSIS DATA SHEET****LCS**

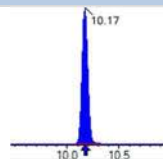
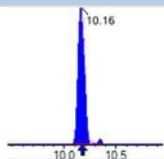
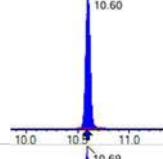
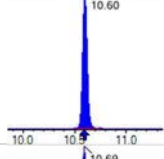
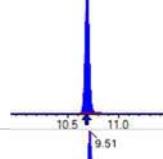
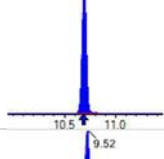
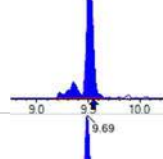
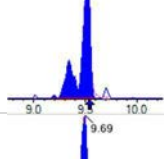
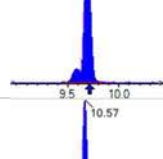
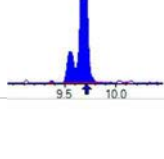
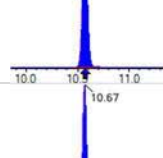
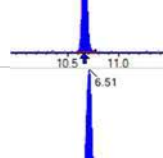
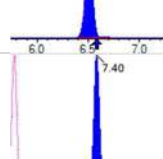
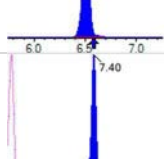
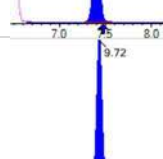
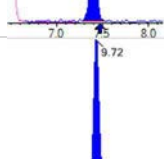
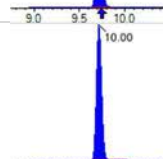
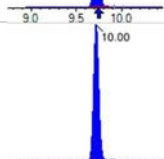
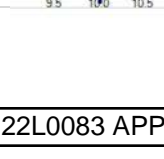
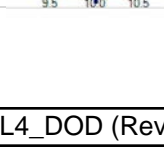
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Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0300-BS1
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Solids:		Analyzed:	12/14/22 21:31
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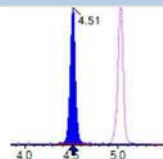
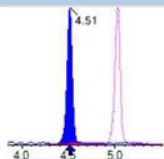
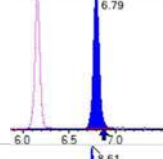
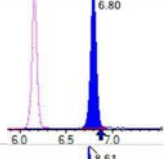
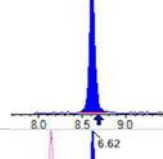
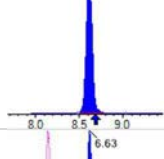
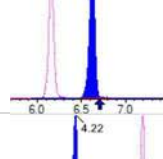
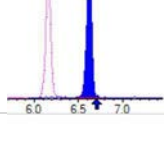
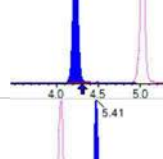
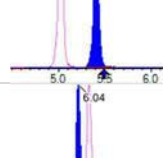
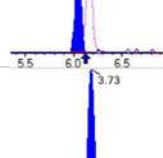
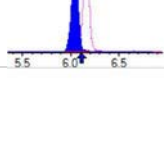
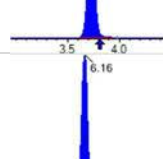
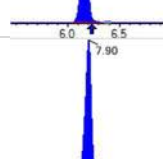
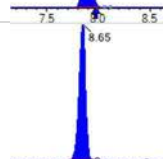

COMPOUND	CONC. (ng/L)	LOQ	DL	Q
ADONA	75.4	8.0	1.2	
PFEESA	70.0	8.0	1.1	
PFMPA	74.2	8.0	0.54	
PFMBA	75.9	8.0	0.91	
NFDHA	87.8	8.0	3.0	
9CL-PF3ONS	69.6	8.0	2.1	
11CL-PF3OUDS	73.9	8.0	2.1	
3:3FTCA	153	16	5.7	
5:3FTCA	166	16	4.4	
7:3FTCA	146	16	5.5	

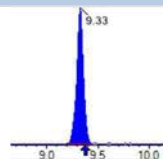
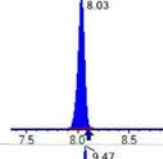
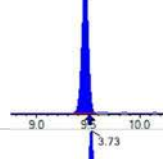
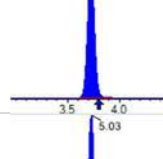
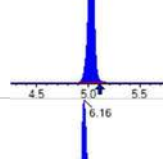
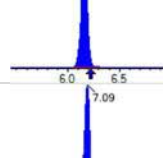
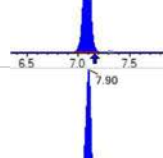
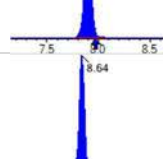
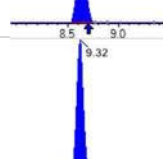
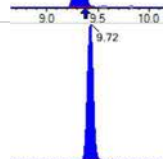

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 258858	(3.73, 1.00) (0.00, N/A, 0.0)	67.1	N/A 0.0 0.0	4.3306 [ 4.0000 ]	108.3%			
PFPeA	(262.9 / 219.0) 193636 (262.9 / 69.0) 2102	(5.03, 1.00) (0.00, N/A, 0.4)	745.0 72.6	0.0109 86.5 92.4	2.1279 [ 2.0000 ]	106.4%			
PFHxA	(313.0 / 269.0) 151297 (313.0 / 119.0) 14018	(6.16, 1.00) (0.00, N/A, -0.2)	450.6 198.3	0.0927 100.1 87.0	1.0434 [ 1.0000 ]	104.3%			
PFHpA	(363.0 / 319.0) 135496 (363.0 / 169.0) 39655	(7.09, 1.00) (0.00, N/A, 0.1)	305.7 226.1	0.2927 94.1 90.4	1.1159 [ 1.0000 ]	111.6%			
PFOA	(413.0 / 369.0) 142067 (413.0 / 169.0) 47579	(7.90, 1.00) (0.00, N/A, -0.2)	280.4 338.9	0.3349 99.8 115.0	1.0544 [ 1.0000 ]	105.4%			
PFNA	(463.0 / 419.0) 99809 (463.0 / 169.0) 20053	(8.65, 1.00) (0.01, N/A, 0.1)	235.5 47.2	0.2009 114.5 98.5	1.2462 [ 1.0000 ]	124.6%			
PFDA	(513.0 / 469.0) 138290 (513.0 / 169.0) 12496	(9.33, 1.00) (0.00, N/A, -0.2)	291.6 209.5	0.0904 89.8 69.0	0.9203 [ 1.0000 ]	92.0%			
PFUnA	(563.0 / 519.0) 169418 (563.0 / 169.0) 19000	(9.72, 1.00) (0.00, N/A, -0.2)	329.9 263.4	0.1121 122.5 129.2	0.9344 [ 1.0000 ]	93.4%			
PFDoA	(613.0 / 569.0) 225597 (613.0 / 169.0) 26376	(9.89, 1.00) (0.00, N/A, -0.3)	389.8 163.8	0.1169 91.2 82.1	1.0520 [ 1.0000 ]	105.2%			
PFTrDA	(663.0 / 619.0) 177143 (663.0 / 169.0) 35818	(10.02, 1.01) (N/A, -0.01, 0.2)	421.4 232.6	0.2022 92.1 87.8	1.0020 [ 1.0000 ]	100.2%			
PFTeDA	(713.0 / 669.0) 130615 (713.0 / 169.0) 15581	(10.12, 1.00) (-0.01, N/A, -0.6)	397.3 88.9	0.1193 64.1 68.0	1.1062 [ 1.0000 ]	110.6%			

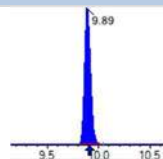
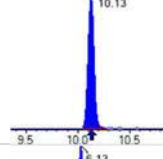
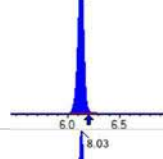
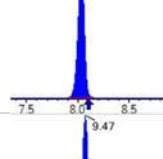
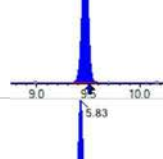
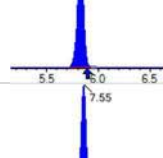
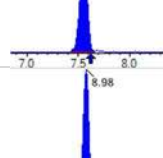
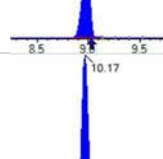
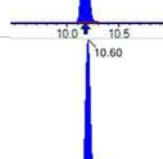
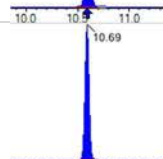

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 192286 (298.9 / 99.0) 128173	(6.12, 1.00) (0.00, N/A, -0.2)	428.2 516.7	0.6666 92.5 100.3	0.8902 [0.8847]	100.6%			
PFPeS	(349.0 / 80.0) 371927 (349.0 / 99.0) 129980	(7.16, 0.89) (N/A, -0.02, -0.1)	728.6 605.9	0.3495 93.3 93.3	0.9300 [0.9384]	99.1%			
PFHxS	(399.0 / 80.0) 313036 (399.0 / 99.0) 110702	(8.03, 1.00) (0.00, N/A, 0.1)	10473.8 588.4	0.3536 109.6 102.2	0.8575 [0.9110]	94.1%			
PFHpS	(449.0 / 80.0) 283083 (449.0 / 99.0) 80671	(8.80, 0.93) (N/A, -0.02, 0.1)	469.4 274.3	0.2850 92.8 95.3	0.9857 [0.9514]	103.6%			
PFOS	(499.0 / 80.0) 391851 (499.0 / 99.0) 89508	(9.47, 1.00) (0.00, N/A, 0.0)	117.3 120.8	0.2284 99.5 89.6	1.1228 [0.9275]	121.1%			
PFNS	(549.0 / 80.0) 421504 (549.0 / 99.0) 108545	(9.76, 1.03) (N/A, -0.01, -0.1)	660.5 294.2	0.2575 99.3 108.8	0.9802 [0.9599]	102.1%			
PFDS	(599.0 / 80.0) 515657 (599.0 / 99.0) 120977	(9.91, 1.05) (N/A, -0.01, 0.1)	365.3 373.3	0.2346 104.2 95.1	0.9122 [0.9631]	94.7%			
PFDoS	(698.9 / 80.0) 280946 (698.9 / 99.0) 61402	(10.11, 1.07) (N/A, -0.01, 0.1)	585.5 1913.0	0.2186 107.9 108.3	0.9824 [0.9696]	101.3%			
4:2FTS	(327.0 / 307.0) 291124 (327.0 / 81.0) 159331	(5.83, 1.00) (0.00, N/A, 0.0)	767.7 455.8	0.5473 90.2 95.8	3.7678 [3.7381]	100.8%			
6:2FTS	(427.0 / 407.0) 184848 (427.0 / 81.0) 124592	(7.56, 1.00) (0.00, N/A, 0.1)	633.8 427.9	0.6740 103.7 90.8	4.1770 [3.7962]	110.0%			
8:2FTS	(527.0 / 507.0) 166990 (527.0 / 81.0) 100128	(8.98, 1.00) (0.00, N/A, 0.2)	283.4 342.9	0.5996 95.6 87.2	4.6273 [3.8332]	120.7%			

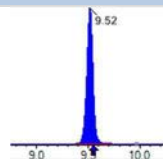
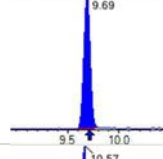
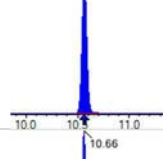
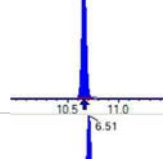
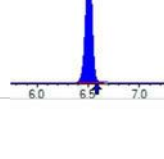


Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 464420 (498.0 / 478.0) 13808	(10.17, 1.00) (0.00, N/A, 0.5)	850.1 20837.9	0.0297 130.6 107.6	1.1987 [ 1.0000 ]	119.9%			
NMeFOSA	(511.9 / 219.0) 305413 (511.9 / 169.0) 187184	(10.60, 1.00) (0.00, N/A, 0.1)	876.5 769.6	0.6129 96.1 96.0	5.5455 [ 4.0000 ]	138.6%			QC,
NEIFOSA	(526.0 / 219.0) 318067 (526.0 / 169.0) 315761	(10.69, 1.00) (0.00, N/A, -0.1)	1512.1 1111.8	0.9928 93.0 91.4	5.4553 [ 4.0000 ]	136.4%			QC,
NMeFOSAA	(570.0 / 419.0) 62368 (570.0 / 483.0) 32142	(9.51, 1.00) (0.00, N/A, -0.3)	518.1 969.2	0.5154 89.8 98.6	1.1544 [ 1.0000 ]	115.4%			
NEIFOSAA	(584.0 / 419.0) 69063 (584.0 / 526.0) 38880	(9.69, 1.00) (0.00, N/A, 0.2)	2643.7 63174.6	0.5630 99.3 95.5	1.1728 [ 1.0000 ]	117.3%			
NMeFOSE	(616.1 / 59.0) 86066	(10.57, 1.00) (0.01, N/A, 0.0)	692.8	N/A 0.0 0.0	4.3924 [ 4.0000 ]	109.8%			
NEtFOSE	(630.0 / 59.0) 21993	(10.67, 1.00) (0.01, N/A, 0.0)	462.5	N/A 0.0 0.0	4.0269 [ 4.0000 ]	100.7%			
HFPO-DA	(285.0 / 169.0) 123180 (285.0 / 185.0) 361704	(6.51, 1.00) (0.00, N/A, -0.1)	572.4 1009.7	2.9364 111.6 100.2	2.0812 [ 2.0000 ]	104.1%			
ADONA	(377.0 / 85.0) 475533 (377.0 / 251.0) 68431	(7.40, 1.14) (N/A, -0.02, -0.1)	799.4 247.7	0.1439 122.1 134.0	1.8841 [ 1.8854 ]	99.9%			
9CI-Pf3ONS	(531.0 / 351.0) 1245541 (533.0 / 353.0) 417201	(9.72, 1.49) (N/A, -0.01, 0.0)	877.2 484.0	0.3350 115.5 107.5	1.7404 [ 1.8665 ]	93.2%			
11CI-PF3OUDS	(631.0 / 451.0) 847159 (633.0 / 453.0) 272063	(10.00, 1.54) (N/A, -0.01, -0.2)	402.2 432.9	0.3211 101.8 92.7	1.8472 [ 1.8864 ]	97.9%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 14657 (241.0 / 117.0) 26998	(4.51, 0.90) (N/A, 0.00, 0.1)	357.3 331.9	1.8420 112.4 100.4	3.8326 [ 4.0000 ]	95.8%			
5:3FTCA	(341.0 / 236.7) 120295 (341.0 / 217.0) 201338	(6.79, 1.10) (N/A, -0.02, -0.1)	342.5 366.2	1.6737 106.2 108.2	4.1459 [ 4.0000 ]	103.6%			
7:3FTCA	(441.0 / 317.0) 132516 (441.0 / 337.0) 115301	(8.61, 1.40) (N/A, -0.02, -0.1)	226.0 380.3	0.8701 103.9 107.3	3.6502 [ 4.0000 ]	91.3%			
PFEESA	(315.0 / 135.0) 276455 (315.0 / 83.0) 86370	(6.62, 1.08) (N/A, -0.02, 0.0)	602.0 407.0	0.3124 101.9 101.9	1.7507 [ 1.7849 ]	98.1%			
PFMPA	(229.0 / 85.0) 45805	(4.22, 0.84) (N/A, 0.00, 0.0)	681.6	N/A 0.0 0.0	1.8544 [ 2.0000 ]	92.7%			
PFMBA	(279.0 / 85.0) 156915	(5.41, 1.08) (N/A, -0.01, 0.0)	697.0	N/A 0.0 0.0	1.8982 [ 2.0000 ]	94.9%			
NFDHA	(201.0 / 85.0) 6817 (295.0 / 201.0) 38518	(6.04, 0.98) (N/A, -0.01, 0.1)	290.3 618.6	5.6502 85.8 78.0	2.1946 [ 2.0000 ]	109.7%			
13C3_PFBA_IIS	(216.0 / 172.0) 96639	(3.73, N/A) (N/A, 0.01, N/A)	704.0	N/A	0.7965 [ 1.0000 ]	79.6% { 100.4% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 146560	(6.16, N/A) (N/A, -0.01, N/A)	415.9	N/A	0.8031 [ 1.0000 ]	80.3% { 83.7% }			
13C4_PFOA_IIS	(417.0 / 372.0) 141110	(7.90, N/A) (N/A, -0.02, N/A)	659.2	N/A	0.8083 [ 1.0000 ]	80.8% { 97.3% }			
13C5_PFNA_IIS	(468.0 / 423.0) 104212	(8.65, N/A) (N/A, -0.02, N/A)	255.1	N/A	0.7669 [ 1.0000 ]	76.7% { 88.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 105340	(9.33, N/A) (N/A, -0.02, N/A)	276.0	N/A	0.7592 [ 1.0000 ]	75.9% { 80.4% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 252893	(8.03, N/A) (N/A, -0.02, N/A)	787.9	N/A	0.7836 [ 1.0000 ]	78.4% { 89.3% }			
13C4_PFOS_IIS	(502.8 / 79.9) 223182	(9.47, N/A) (N/A, -0.02, N/A)	370.2	N/A	0.8863 [ 1.0000 ]	88.6% { 87.7% }			
13C4_PFBA_EIS	(217.0 / 172.0) 680749	(3.73, N/A) (N/A, 0.01, N/A)	775.8	N/A	9.2412 [ 8.0000 ]	115.5% { 106.3% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 410059	(5.03, N/A) (N/A, 0.00, N/A)	766.8	N/A	5.0523 [ 4.0000 ]	126.3% { 125.5% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 327259	(6.16, N/A) (N/A, -0.02, N/A)	806.1	N/A	2.6496 [ 2.0000 ]	132.5% { 118.2% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 262391	(7.09, N/A) (N/A, -0.02, N/A)	653.0	N/A	2.4472 [ 2.0000 ]	122.4% { 112.9% }			
13C8_PFOA_EIS	(421.0 / 376.0) 269653	(7.90, N/A) (N/A, -0.02, N/A)	909.6	N/A	2.4921 [ 2.0000 ]	124.6% { 116.3% }			
13C9_PFNA_EIS	(472.0 / 427.0) 87849	(8.64, N/A) (N/A, -0.02, N/A)	373.5	N/A	1.0942 [ 1.0000 ]	109.4% { 85.4% }			
13C6_PFDA_EIS	(519.0 / 474.0) 148618	(9.32, N/A) (N/A, -0.02, N/A)	394.9	N/A	1.4711 [ 1.0000 ]	147.1% { 121.7% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 209015	(9.72, N/A) (N/A, -0.01, N/A)	411.8	N/A	1.5064 [ 1.0000 ]	150.6% { 119.6% }			S2,

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 247623	(9.89, N/A) (N/A, -0.01, N/A)	611.5	N/A	1.4512 [ 1.0000 ]	145.1% { 118.4% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 129199	(10.13, N/A) (N/A, -0.01, N/A)	296.6	N/A	1.2059 [ 1.0000 ]	120.6% { 95.8% }			
13C3_PFBs_EIS	(302.0 / 80.0) 764564	(6.13, N/A) (N/A, -0.02, N/A)	873.9	N/A	2.6275 [ 2.0000 ]	131.4% { 112.4% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 454576	(8.03, N/A) (N/A, -0.02, N/A)	754.2	N/A	2.7759 [ 2.0000 ]	138.8% { 120.4% }			
13C8_PFOS_EIS	(507.0 / 80.0) 634772	(9.47, N/A) (N/A, -0.02, N/A)	463.6	N/A	2.2844 [ 2.0000 ]	114.2% { 106.6% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 94784	(5.83, N/A) (N/A, -0.01, N/A)	702.7	N/A	5.5733 [ 4.0000 ]	139.3% { 126.7% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 108602	(7.55, N/A) (N/A, -0.02, N/A)	484.0	N/A	5.2228 [ 4.0000 ]	130.6% { 107.6% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 101360	(8.98, N/A) (N/A, -0.02, N/A)	339.4	N/A	4.8858 [ 4.0000 ]	122.1% { 104.5% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 789947	(10.17, N/A) (N/A, 0.00, N/A)	931.6	N/A	1.8794 [ 2.0000 ]	94.0% { 89.5% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 132398	(10.60, N/A) (N/A, 0.00, N/A)	597.2	N/A	1.2272 [ 2.0000 ]	61.4% { 56.6% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 126148	(10.69, N/A) (N/A, 0.00, N/A)	1353.8	N/A	1.3476 [ 2.0000 ]	67.4% { 66.6% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 279549	(9.52, N/A) (N/A, -0.01, N/A)	280.6	N/A	4.2504 [ 4.0000 ]	106.3% { 110.1% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 270592	(9.69, N/A) (N/A, -0.01, N/A)	301.1	N/A	4.5469 [ 4.0000 ]	113.7% { 110.1% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 290469	(10.57, N/A) (N/A, 0.00, N/A)	774.1	N/A	14.0434 [ 20.0000 ]	70.2% { 71.5% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 161449	(10.66, N/A) (N/A, 0.00, N/A)	1130.6	N/A	15.5777 [ 20.0000 ]	77.9% { 74.0% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 765655	(6.51, N/A) (N/A, -0.02, N/A)	1245.9	N/A	10.1200 [ 8.0000 ]	126.5% { 115.2% }			

**ANALYSIS DATA SHEET****MRL Check**

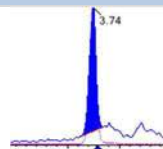
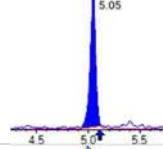
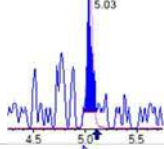
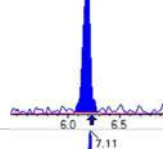
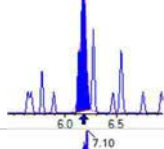
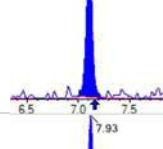
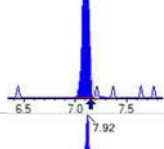
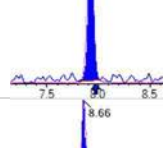
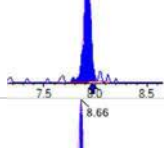
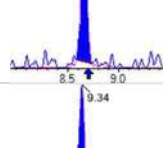
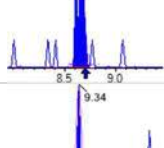
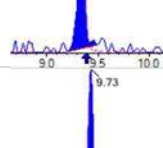
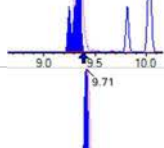
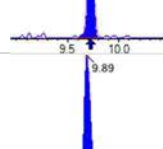
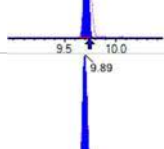
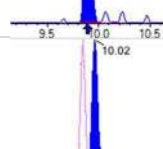
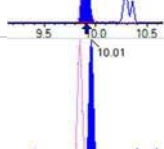
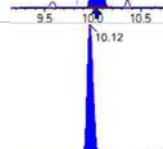
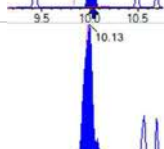

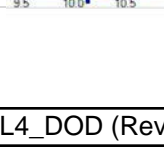
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Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0300-MRL1
Sampled:		File ID:	S2022-12-14A (50)
		Prepared:	12/14/22 11:09
		Analyzed:	12/14/22 21:44
Solids:		Preparation:	1633
		Dilution:	1
Batch:	BBL0300	Sequence:	SB03835
		Calibration:	2251013
		Instrument:	Saphira
Column:	1		

COMPOUND	CONC. (ng/L)	LOQ	DL	Q
PFBA	16.0	16	2.1	
PFPEA	8.20	8.0	0.65	
PFHXA	4.88	4.0	0.55	
PFHPA	4.73	4.0	0.41	
PFOA	5.63	4.0	1.5	
PFNA	4.75	4.0	0.82	
PFDA	5.15	4.0	1.0	
PFUnA	4.97	4.0	1.6	
PFDOA	3.71	4.0	1.1	J
PFTRDA	4.85	4.0	2.0	
PFTEDA	4.15	4.0	2.0	IR2
PFBS	4.56	4.0	0.37	
PFPEs	3.97	4.0	0.63	J
PFHXS	4.44	4.0	0.32	
PFHPS	4.21	4.0	0.51	
PFOS	24.2	4.0	0.64	BS2
PFNS	3.33	4.0	1.2	IR2, J
PFDS	4.08	4.0	1.5	
PFDOS	4.74	4.0	1.2	
4:2FTS	15.2	16	2.9	J
6:2FTS	14.7	16	3.1	J
8:2FTS	17.1	16	0.82	
PFOSA	8.57	4.0	1.0	BS2
NMeFOSA	16.7	16	4.7	
NEtFOSA	16.5	16	4.1	
NMeFOSAA	3.48	4.0	1.1	J
NEtFOSAA	3.66	4.0	1.1	J
NMeFOSE	13.6	16	10	J
NEtFOSE	19.4	16	10	
HFPO-DA	7.06	8.0	1.7	

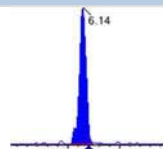
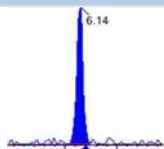
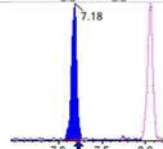
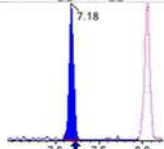
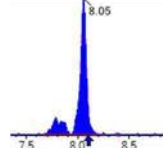
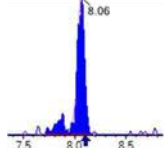
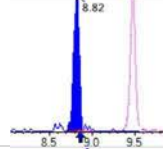
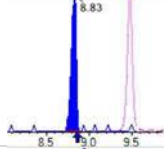
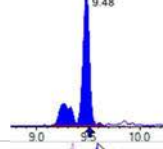
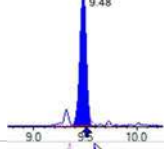
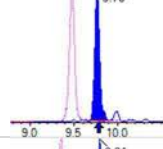
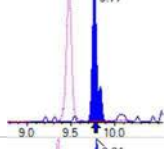
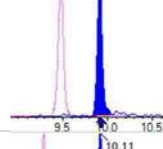
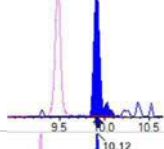
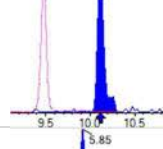
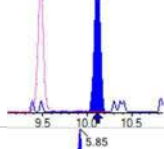
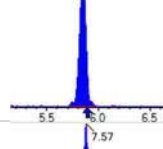
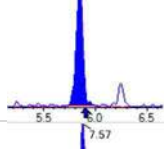
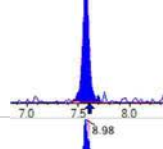
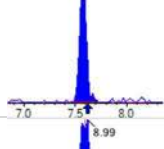
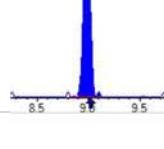
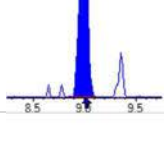
**ANALYSIS DATA SHEET****MRL Check**

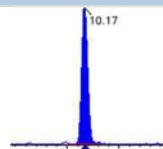
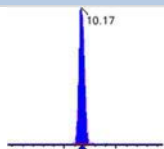
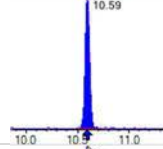
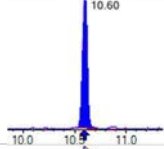
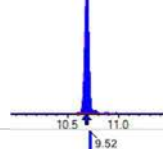
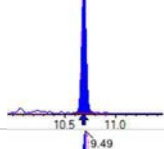
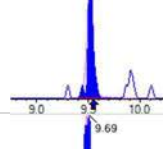
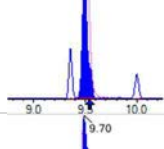
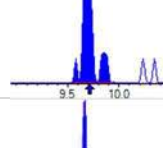
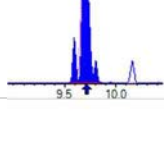
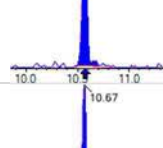
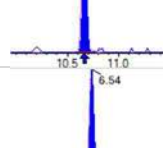
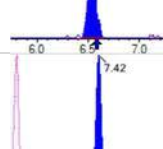
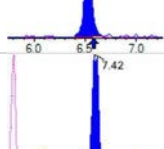
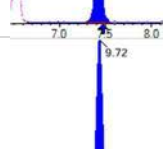
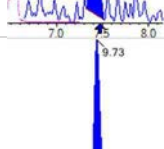
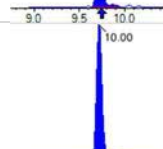
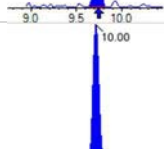

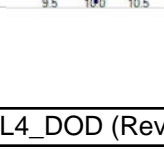
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Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0300-MRL1
Sampled:		Prepared:	12/14/22 11:09
Solids:		Preparation:	1633
Batch:	BBL0300	Sequence:	SB03835
Column:	1	Calibration:	2251013
			Instrument: Saphira

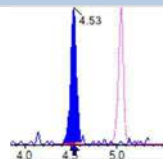
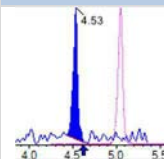
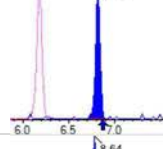
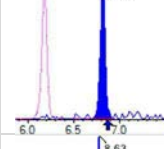
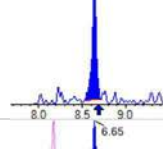
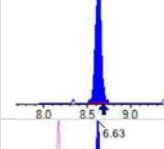
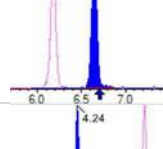
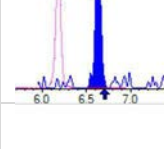
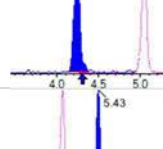
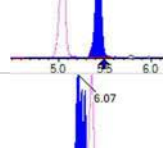
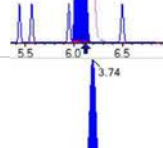
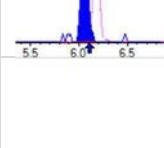
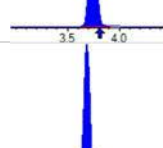
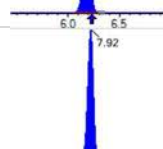
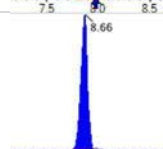
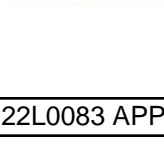
COMPOUND	CONC. (ng/L)	LOQ	DL	Q
ADONA	6.86	8.0	1.2	J
PFEESA	7.00	8.0	1.1	J
PFMPA	7.41	8.0	0.54	J
PFMBA	8.25	8.0	0.91	
NFDHA	9.30	8.0	3.0	IR1
9CL-PF3ONS	7.39	8.0	2.1	J
11CL-PF3OUDS	6.68	8.0	2.1	J
3:3FTCA	21.7	16	5.7	
5:3FTCA	18.2	16	4.4	
7:3FTCA	14.7	16	5.5	J

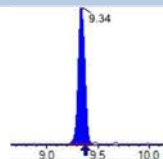
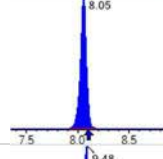
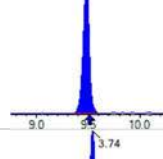
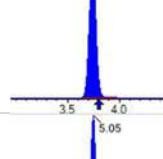
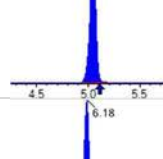
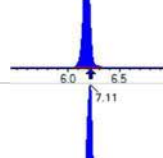
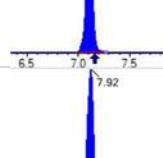
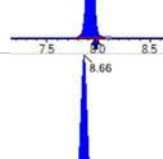
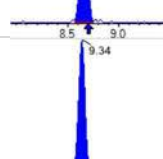
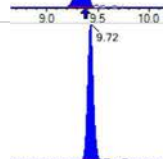

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 23851	(3.74, 1.00) (0.00, N/A, 0.0)	37.9	N/A 0.0 0.0	0.3997 [0.4000]	99.9%			
PFPeA	(262.9 / 219.0) 17960 (262.9 / 69.0) 219	(5.05, 1.00) (0.00, N/A, 0.7)	182.7 11.4	0.0122 97.3 104.1	0.2051 [0.2000]	102.6%			
PFHxA	(313.0 / 269.0) 16717 (313.0 / 119.0) 1294	(6.18, 1.00) (0.00, N/A, 0.3)	66.7 25.5	0.0774 83.6 72.6	0.1221 [0.1000]	122.1%			
PFHpA	(363.0 / 319.0) 14310 (363.0 / 169.0) 3004	(7.11, 1.00) (0.00, N/A, 0.4)	68.9 95.8	0.2099 67.5 64.8	0.1181 [0.1000]	118.1%			
PFOA	(413.0 / 369.0) 18813 (413.0 / 169.0) 7193	(7.93, 1.00) (0.00, N/A, 0.3)	83.6 101.4	0.3823 113.9 131.2	0.1408 [0.1000]	140.8%			QC,
PFNA	(463.0 / 419.0) 10465 (463.0 / 169.0) 1918	(8.66, 1.00) (0.00, N/A, 0.1)	44.0 22.4	0.1833 104.4 89.9	0.1187 [0.1000]	118.7%			
PFDA	(513.0 / 469.0) 17190 (513.0 / 169.0) 1342	(9.34, 1.00) (0.00, N/A, -0.1)	42.2 87.2	0.0780 77.5 59.6	0.1288 [0.1000]	128.8%			
PFUnA	(563.0 / 519.0) 21024 (563.0 / 169.0) 1061	(9.73, 1.00) (0.01, N/A, 1.0)	115.5 5223.5	0.0505 55.2 58.2	0.1242 [0.1000]	124.2%			
PFDoA	(613.0 / 569.0) 17697 (613.0 / 169.0) 2823	(9.89, 1.00) (-0.01, N/A, -0.4)	86.8 255.8	0.1595 124.4 112.0	0.0928 [0.1000]	92.8%			
PFTrDA	(663.0 / 619.0) 19065 (663.0 / 169.0) 2225	(10.02, 1.01) (N/A, -0.01, 0.4)	211.6 154.3	0.1167 53.2 50.7	0.1212 [0.1000]	121.2%			
PFTeDA	(713.0 / 669.0) 16116 (713.0 / 169.0) 4704	(10.12, 1.00) (-0.01, N/A, -0.9)	123.1 45.3	0.2919 156.9 166.3	0.1037 [0.1000]	103.7%			IR2,

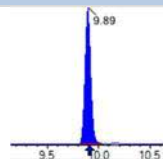
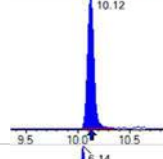
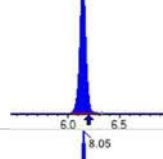
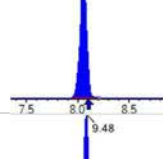
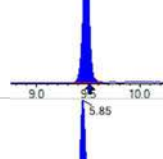
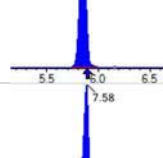
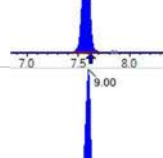
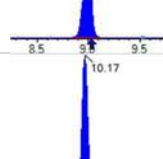
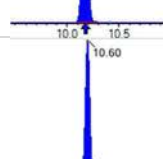
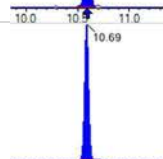



Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 22860 (298.9 / 99.0) 14065	(6.14, 1.00) (0.00, N/A, 0.0)	221.7 80.5	0.6153 85.4 92.6	0.1141 [0.0885]	129.0%			
PFPeS	(349.0 / 80.0) 37324 (349.0 / 99.0) 15004	(7.18, 0.89) (N/A, 0.00, -0.1)	251.4 190.5	0.4020 107.3 107.4	0.0993 [0.0938]	105.9%			
PFHxS	(399.0 / 80.0) 38085 (399.0 / 99.0) 13130	(8.05, 1.00) (0.00, N/A, -0.2)	2500767.0 131.8	0.3447 106.9 99.7	0.1110 [0.0911]	121.9%			
PFHpS	(449.0 / 80.0) 29316 (449.0 / 99.0) 11036	(8.82, 0.93) (N/A, -0.01, -0.3)	119.5 114.7	0.3764 122.6 125.9	0.1052 [0.0951]	110.6%			
PFOS	(499.0 / 80.0) 205140 (499.0 / 99.0) 47236	(9.48, 1.00) (0.00, N/A, 0.1)	251.0 117.8	0.2303 100.3 90.3	0.6059 [0.0927]	653.3%			QC,
PFNS	(549.0 / 80.0) 34730 (549.0 / 99.0) 12532	(9.76, 1.03) (N/A, -0.01, -0.2)	139.2 65.7	0.3609 139.2 152.4	0.0833 [0.0960]	86.7%			IR2,
PFDS	(599.0 / 80.0) 55878 (599.0 / 99.0) 12653	(9.91, 1.05) (N/A, -0.01, 0.1)	165.7 67.3	0.2264 100.6 91.8	0.1019 [0.0963]	105.8%			
PFDoS	(698.9 / 80.0) 32896 (698.9 / 99.0) 7597	(10.11, 1.07) (N/A, 0.00, 0.0)	116.2 64.9	0.2309 114.1 114.5	0.1186 [0.0970]	122.3%			
4:2FTS	(327.0 / 307.0) 27601 (327.0 / 81.0) 16884	(5.85, 1.00) (0.00, N/A, 0.0)	427.4 114.8	0.6117 100.8 107.1	0.3807 [0.3738]	101.8%			
6:2FTS	(427.0 / 407.0) 17469 (427.0 / 81.0) 14591	(7.57, 1.00) (0.00, N/A, 0.0)	98.9 154.2	0.8352 128.6 112.6	0.3668 [0.3796]	96.6%			
8:2FTS	(527.0 / 507.0) 18141 (527.0 / 81.0) 9692	(8.98, 1.00) (-0.01, N/A, -0.6)	196.8 57.5	0.5343 85.2 77.7	0.4274 [0.3833]	111.5%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 99735 (498.0 / 478.0) 3061	(10.17, 1.00) (0.00, N/A, 0.0)	321.7 6870.7	0.0307 134.8 111.1	0.2143 [0.1000]	214.3%			QC,
NMeFOSA	(511.9 / 219.0) 24453 (511.9 / 169.0) 16784	(10.59, 1.00) (0.00, N/A, -0.4)	389.0 274.6	0.6864 107.6 107.6	0.4181 [0.4000]	104.5%			
NEIFOSA	(526.0 / 219.0) 27317 (526.0 / 169.0) 27484	(10.69, 1.00) (0.00, N/A, 0.0)	546.3 270.9	1.0061 94.2 92.6	0.4116 [0.4000]	102.9%			
NMeFOSAA	(570.0 / 419.0) 4656 (570.0 / 483.0) 2467	(9.52, 1.00) (0.00, N/A, 1.6)	2209.4 219.2	0.5299 92.3 101.4	0.0870 [0.1000]	87.0%			
NEIFOSAA	(584.0 / 419.0) 5046 (584.0 / 526.0) 4228	(9.69, 1.00) (0.00, N/A, -0.4)	1157.6 1294.5	0.8379 147.8 142.2	0.0915 [0.1000]	91.5%			
NMeFOSE	(616.1 / 59.0) 9888	(10.57, 1.00) (0.00, N/A, 0.0)	136.2	N/A 0.0 0.0	0.3404 [0.4000]	85.1%			
NEtFOSE	(630.0 / 59.0) 3272	(10.67, 1.00) (0.01, N/A, 0.0)	349.5	N/A 0.0 0.0	0.4841 [0.4000]	121.0%			
HFPO-DA	(285.0 / 169.0) 11011 (285.0 / 185.0) 35965	(6.54, 1.00) (0.01, N/A, 0.5)	172.2 217.4	3.2663 124.2 111.4	0.1766 [0.2000]	88.3%			
ADONA	(377.0 / 85.0) 45574 (377.0 / 251.0) 6762	(7.42, 1.14) (N/A, 0.00, 0.0)	403.1 22.4	0.1484 125.9 138.2	0.1714 [0.1885]	90.9%			
9CI-Pf3ONS	(531.0 / 351.0) 139216 (533.0 / 353.0) 45757	(9.72, 1.49) (N/A, -0.01, -0.4)	247.0 104.5	0.3287 113.4 105.4	0.1847 [0.1867]	98.9%			
11CI-PF3OUDS	(631.0 / 451.0) 80687 (633.0 / 453.0) 25004	(10.00, 1.53) (N/A, -0.01, 0.2)	234.4 141.8	0.3099 98.2 89.4	0.1670 [0.1886]	88.5%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 1993 (241.0 / 117.0) 2379	(4.53, 0.90) (N/A, 0.01, -0.2)	79.2 52.6	1.1933 72.8 65.0	0.5417 [0.4000]	135.4%			QC,
5:3FTCA	(341.0 / 236.7) 12459 (341.0 / 217.0) 18061	(6.82, 1.10) (N/A, 0.00, 0.0)	189.8 86.8	1.4497 92.0 93.7	0.4547 [0.4000]	113.7%			
7:3FTCA	(441.0 / 317.0) 12633 (441.0 / 337.0) 14448	(8.64, 1.40) (N/A, 0.00, 0.6)	45.2 195.9	1.1437 136.5 141.0	0.3685 [0.4000]	92.1%			
PFEESA	(315.0 / 135.0) 26096 (315.0 / 83.0) 6665	(6.65, 1.08) (N/A, 0.00, 0.9)	253.0 48.7	0.2554 83.3 83.3	0.1750 [0.1785]	98.0%			
PFMPA	(229.0 / 85.0) 4403	(4.24, 0.84) (N/A, 0.02, 0.0)	222.7	N/A 0.0 0.0	0.1853 [0.2000]	92.6%			
PFMBA	(279.0 / 85.0) 16413	(5.43, 1.08) (N/A, 0.01, 0.0)	385.0	N/A 0.0 0.0	0.2063 [0.2000]	103.2%			
NFDHA	(201.0 / 85.0) 990 (295.0 / 201.0) 3344	(6.07, 0.98) (N/A, 0.01, 0.0)	50.6 97.6	3.3790 51.3 46.6	0.2324 [0.2000]	116.2%			IR1,
13C3_PFBA_IIS	(216.0 / 172.0) 89388	(3.74, N/A) (N/A, 0.03, N/A)	822.5	N/A	0.7367 [1.0000]	73.7% {92.8%}			
13C2_PFHxA_IIS	(315.1 / 270.0) 149951	(6.18, N/A) (N/A, 0.01, N/A)	748.2	N/A	0.8217 [1.0000]	82.2% {85.6%}			
13C4_PFOA_IIS	(417.0 / 372.0) 131805	(7.92, N/A) (N/A, 0.00, N/A)	591.2	N/A	0.7550 [1.0000]	75.5% {90.9%}			
13C5_PFNA_IIS	(468.0 / 423.0) 101406	(8.66, N/A) (N/A, -0.01, N/A)	272.6	N/A	0.7463 [1.0000]	74.6% {86.5%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 119673	(9.34, N/A) (N/A, -0.01, N/A)	418.1	N/A	0.8625 [ 1.0000 ]	86.2% { 91.4% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 256791	(8.05, N/A) (N/A, 0.00, N/A)	913.3	N/A	0.7957 [ 1.0000 ]	79.6% { 90.6% }			
13C4_PFOS_IIS	(502.8 / 79.9) 215792	(9.48, N/A) (N/A, -0.01, N/A)	343.5	N/A	0.8569 [ 1.0000 ]	85.7% { 84.8% }			
13C4_PFBA_EIS	(217.0 / 172.0) 679601	(3.74, N/A) (N/A, 0.03, N/A)	1018.3	N/A	9.9740 [ 8.0000 ]	124.7% { 106.1% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 394569	(5.05, N/A) (N/A, 0.02, N/A)	764.3	N/A	4.7515 [ 4.0000 ]	118.8% { 120.8% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 309060	(6.18, N/A) (N/A, 0.01, N/A)	953.4	N/A	2.4456 [ 2.0000 ]	122.3% { 111.6% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 261765	(7.11, N/A) (N/A, 0.00, N/A)	519.6	N/A	2.3862 [ 2.0000 ]	119.3% { 112.6% }			
13C8_PFOA_EIS	(421.0 / 376.0) 267477	(7.92, N/A) (N/A, 0.00, N/A)	748.4	N/A	2.6465 [ 2.0000 ]	132.3% { 115.4% }			
13C9_PFNA_EIS	(472.0 / 427.0) 96685	(8.66, N/A) (N/A, 0.00, N/A)	310.3	N/A	1.2375 [ 1.0000 ]	123.8% { 94.0% }			
13C6_PFDA_EIS	(519.0 / 474.0) 132038	(9.34, N/A) (N/A, -0.01, N/A)	208.2	N/A	1.1504 [ 1.0000 ]	115.0% { 108.2% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 195159	(9.72, N/A) (N/A, -0.01, N/A)	393.2	N/A	1.2381 [ 1.0000 ]	123.8% { 111.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 220318	(9.89, N/A) (N/A, -0.01, N/A)	363.8	N/A	1.1365 [ 1.0000 ]	113.7% { 105.3% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 170114	(10.12, N/A) (N/A, -0.01, N/A)	207.6	N/A	1.3976 [ 1.0000 ]	139.8% { 126.1% }			
13C3_PFBs_EIS	(302.0 / 80.0) 709056	(6.14, N/A) (N/A, 0.00, N/A)	740.0	N/A	2.3998 [ 2.0000 ]	120.0% { 104.2% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 427105	(8.05, N/A) (N/A, 0.00, N/A)	774.4	N/A	2.5686 [ 2.0000 ]	128.4% { 113.2% }			
13C8_PFOS_EIS	(507.0 / 80.0) 615811	(9.48, N/A) (N/A, -0.01, N/A)	290.6	N/A	2.2920 [ 2.0000 ]	114.6% { 103.4% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 88937	(5.85, N/A) (N/A, 0.02, N/A)	770.6	N/A	5.1501 [ 4.0000 ]	128.8% { 118.8% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 116871	(7.58, N/A) (N/A, 0.00, N/A)	703.4	N/A	5.5351 [ 4.0000 ]	138.4% { 115.8% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 119202	(9.00, N/A) (N/A, 0.00, N/A)	492.0	N/A	5.6586 [ 4.0000 ]	141.5% { 122.9% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 948972	(10.17, N/A) (N/A, 0.00, N/A)	864.2	N/A	2.3351 [ 2.0000 ]	116.8% { 107.5% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 140614	(10.60, N/A) (N/A, 0.00, N/A)	683.5	N/A	1.3479 [ 2.0000 ]	67.4% { 60.1% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 143608	(10.69, N/A) (N/A, 0.00, N/A)	846.6	N/A	1.5867 [ 2.0000 ]	79.3% { 75.8% }			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: BBL0300-MRL1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-13A  
 Path: S2022-12-14A (50)  
 Acquired: 2022/12/14 - 21:44

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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 ) 276923	( 9.52, N/A ) ( N/A, -0.01, N/A )	390.6	N/A	4.3547 [ 4.0000 ]	108.9% { 109.1% }			
D5_EtFOSAA_EIS	( 589.0 / 419.0 ) 253371	( 9.69, N/A ) ( N/A, -0.01, N/A )	270.8	N/A	4.4033 [ 4.0000 ]	110.1% { 103.1% }			
D7_NMeFOSE_EIS	( 623.2 / 58.9 ) 430605	( 10.56, N/A ) ( N/A, 0.00, N/A )	927.7	N/A	21.5315 [ 20.0000 ]	107.7% { 106.0% }			
D9_NEtFOSE_EIS	( 639.2 / 58.9 ) 199812	( 10.66, N/A ) ( N/A, 0.00, N/A )	1271.4	N/A	19.9395 [ 20.0000 ]	99.7% { 91.6% }			
13C3_HFPODA_EIS	( 287.0 / 169.0 ) 806559	( 6.53, N/A ) ( N/A, 0.01, N/A )	1082.5	N/A	10.4196 [ 8.0000 ]	130.2% { 121.4% }			

# ANALYSIS DATA SHEET

Blank

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0355-BLK1
Sampled:		Prepared:	12/19/22 08:59
Solids:		Preparation:	1633
Batch:	BBL0355	Sequence:	SB03903
Column:	1	Calibration:	2251019
		Instrument:	Saphira
		File ID:	S2022-12-20A (11)
		Analyzed:	12/20/22 12:12
		Dilution:	1

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
PFBA	0.80 U	1.6	0.80	0.21	U
PFPEA	0.40 U	0.80	0.40	0.065	U
PFHXA	0.20 U	0.40	0.20	0.055	U
PFHPA	0.20 U	0.40	0.20	0.041	U
PFOA	0.20 U	0.40	0.20	0.15	U
PFNA	0.20 U	0.40	0.20	0.082	U
PFDA	0.20 U	0.40	0.20	0.10	U
PFUnA	0.20 U	0.40	0.20	0.16	U
PFDOA	0.20 U	0.40	0.20	0.11	U
PFTRDA	0.30 U	0.40	0.30	0.20	U
PFTEDA	0.20 U	0.40	0.20	0.20	U
PFBS	0.20 U	0.40	0.20	0.037	U
PFPEs	0.20 U	0.40	0.20	0.063	U
PFHXS	0.20 U	0.40	0.20	0.032	U
PFHPS	0.20 U	0.40	0.20	0.051	U
PFOS	0.0827 J	0.40	0.20	0.064	J
PFNS	0.20 U	0.40	0.20	0.12	U
PFDS	0.20 U	0.40	0.20	0.15	U
PFDOS	0.20 U	0.40	0.20	0.12	U
4:2FTS	0.80 U	1.6	0.80	0.29	U
6:2FTS	0.80 U	1.6	0.80	0.31	U
8:2FTS	0.80 U	1.6	0.80	0.082	U
PFOSA	0.20 U	0.40	0.20	0.10	U
NMeFOSA	0.80 U	1.6	0.80	0.47	U
NEtFOSA	0.80 U	1.6	0.80	0.41	U
NMeFOSAA	0.20 U	0.40	0.20	0.11	U
NEtFOSAA	0.20 U	0.40	0.20	0.11	U
NMeFOSE	1.2 U	1.6	1.2	1.0	U
NEtFOSE	1.2 U	1.6	1.2	1.0	U
HFPO-DA	0.40 U	0.80	0.40	0.17	U

**ANALYSIS DATA SHEET**

Blank

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0355-BLK1
Sampled:		Prepared:	12/19/22 08:59
Solids:		Preparation:	1633
Batch:	BBL0355	Sequence:	SB03903
Column:	1	Calibration:	2251019
			Instrument: Saphira
			File ID: S2022-12-20A (11)
			Analyzed: 12/20/22 12:12
			Dilution: 1

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
ADONA	0.40 U	0.80	0.40	0.12	U
PFEESA	0.40 U	0.80	0.40	0.11	U
PFMPA	0.40 U	0.80	0.40	0.054	U
PFMBA	0.40 U	0.80	0.40	0.091	U
NFDHA	0.40 U	0.80	0.40	0.30	U
9CL-PF3ONS	0.40 U	0.80	0.40	0.21	U
11CL-PF3OUDS	0.40 U	0.80	0.40	0.21	U
3:3FTCA	0.80 U	1.6	0.80	0.57	U
5:3FTCA	0.80 U	1.6	0.80	0.44	U
7:3FTCA	0.80 U	1.6	0.80	0.55	U





Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: BBL0355-BLK1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (11)  
 Acquired: 2022/12/20 - 12:12

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	(212.9 / 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	(262.9 / 219.0) N/A (262.9 / 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			
PFTrDA	(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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: BBL0355-BLK1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (11)  
 Acquired: 2022/12/20 - 12:12

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	( 298.9 / 80.0 ) N/A ( 298.9 / 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 ) 7614 ( 499.0 / 99.0 ) 1984	( 9.44 , 1.00 ) ( 0.00 , N/A , -1.4 )	29.5 24.3	0.2605 114.0 114.7	0.0207	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	( 698.9 / 80.0 ) N/A ( 698.9 / 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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: BBL0355-BLK1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (11)  
 Acquired: 2022/12/20 - 12:12

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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 ) 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	( 511.9 / 219.0 ) N/A ( 511.9 / 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 ) 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	( 616.1 / 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			
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			

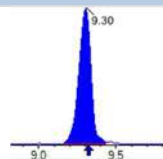
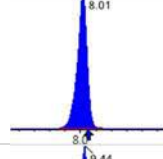
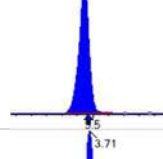
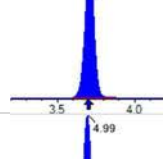
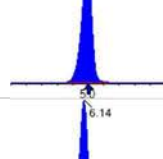
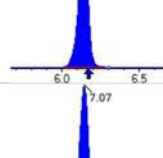
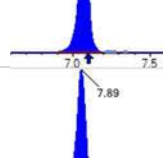
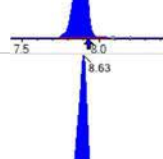
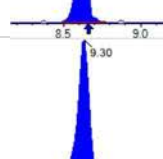
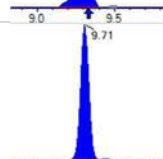
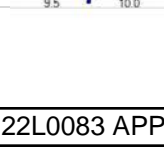


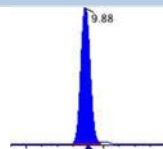
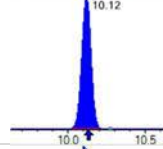
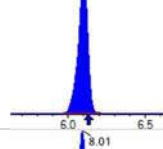
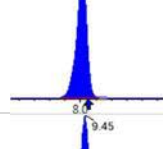
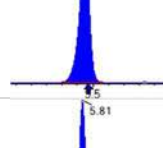
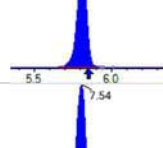
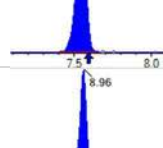
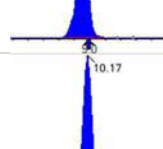
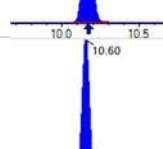
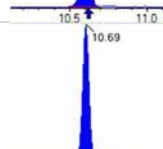

Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

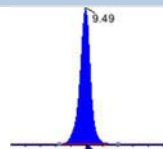
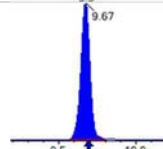
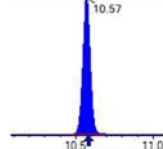
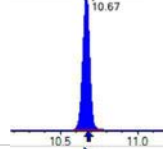
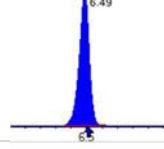
Sample I.D.: BBL0355-BLK1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (11)  
 Acquired: 2022/12/20 - 12:12

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	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(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) 93894	(3.71, N/A) (N/A, 0.01, N/A)	744.6	N/A	1.0739 [ 1.0000 ]	107.4% { 130.8% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 137700	(6.14, N/A) (N/A, -0.03, N/A)	663.4	N/A	1.0465 [ 1.0000 ]	104.7% { 117.9% }			
13C4_PFOA_IIS	(417.0 / 372.0) 139021	(7.88, N/A) (N/A, -0.04, N/A)	598.5	N/A	1.1107 [ 1.0000 ]	111.1% { 137.8% }			
13C5_PFNA_IIS	(468.0 / 423.0) 108283	(8.62, N/A) (N/A, -0.03, N/A)	319.9	N/A	1.0848 [ 1.0000 ]	108.5% { 111.5% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 106973	(9.30, N/A) (N/A, -0.02, N/A)	321.7	N/A	1.0315 [ 1.0000 ]	103.2% { 156.2% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 255110	(8.01, N/A) (N/A, -0.04, N/A)	818.1	N/A	1.0783 [ 1.0000 ]	107.8% { 120.9% }			
13C4_PFOS_IIS	(502.8 / 79.9) 192815	(9.44, N/A) (N/A, -0.02, N/A)	300.6	N/A	0.9611 [ 1.0000 ]	96.1% { 121.2% }			
13C4_PFBA_EIS	(217.0 / 172.0) 766331	(3.71, N/A) (N/A, 0.01, N/A)	892.2	N/A	7.8832 [ 8.0000 ]	98.5% { 134.7% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 420890	(4.99, N/A) (N/A, -0.01, N/A)	749.0	N/A	4.1517 [ 4.0000 ]	103.8% { 129.6% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 335561	(6.14, N/A) (N/A, -0.03, N/A)	657.6	N/A	2.0701 [ 2.0000 ]	103.5% { 140.6% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 261250	(7.07, N/A) (N/A, -0.03, N/A)	394.8	N/A	1.8242 [ 2.0000 ]	91.2% { 118.1% }			
13C8_PFOA_EIS	(421.0 / 376.0) 266699	(7.89, N/A) (N/A, -0.04, N/A)	540.7	N/A	1.7361 [ 2.0000 ]	86.8% { 116.1% }			
13C9_PFNA_EIS	(472.0 / 427.0) 110479	(8.63, N/A) (N/A, -0.03, N/A)	299.3	N/A	0.9341 [ 1.0000 ]	93.4% { 134.6% }			
13C6_PFDA_EIS	(519.0 / 474.0) 144700	(9.30, N/A) (N/A, -0.03, N/A)	390.8	N/A	0.9983 [ 1.0000 ]	99.8% { 133.9% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 225100	(9.71, N/A) (N/A, -0.02, N/A)	502.1	N/A	1.0785 [ 1.0000 ]	107.9% { 148.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 234169	(9.88, N/A) (N/A, -0.02, N/A)	1067.6	N/A	0.9949 [ 1.0000 ]	99.5% { 128.5% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 160416	(10.12, N/A) (N/A, -0.01, N/A)	413.5	N/A	1.1214 [ 1.0000 ]	112.1% { 142.4% }			
13C3_PFBs_EIS	(302.0 / 80.0) 821313	(6.10, N/A) (N/A, -0.03, N/A)	766.1	N/A	1.9712 [ 2.0000 ]	98.6% { 124.1% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 396286	(8.01, N/A) (N/A, -0.04, N/A)	651.4	N/A	1.8340 [ 2.0000 ]	91.7% { 115.4% }			
13C8_PFOS_EIS	(507.0 / 80.0) 669766	(9.45, N/A) (N/A, -0.02, N/A)	400.5	N/A	2.1146 [ 2.0000 ]	105.7% { 121.8% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 102446	(5.81, N/A) (N/A, -0.03, N/A)	507.7	N/A	4.3606 [ 4.0000 ]	109.0% { 121.5% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 119670	(7.54, N/A) (N/A, -0.05, N/A)	572.9	N/A	3.9747 [ 4.0000 ]	99.4% { 134.6% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 120213	(8.96, N/A) (N/A, -0.03, N/A)	443.2	N/A	4.4536 [ 4.0000 ]	111.3% { 136.6% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 906022	(10.17, N/A) (N/A, -0.01, N/A)	815.4	N/A	1.9655 [ 2.0000 ]	98.3% { 108.6% }			
D3_NMeFOsa_EIS	(515.0 / 169.0) 126898	(10.60, N/A) (N/A, -0.01, N/A)	570.7	N/A	1.1050 [ 2.0000 ]	55.3% { 62.3% }			
D5_NEtFOsa_EIS	(531.1 / 169.0) 120669	(10.69, N/A) (N/A, -0.01, N/A)	1011.4	N/A	1.1253 [ 2.0000 ]	56.3% { 65.3% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 310466	(9.49, N/A) (N/A, -0.02, N/A)	337.8	N/A	4.1787 [ 4.0000 ]	104.5% { 131.8% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 287865	(9.67, N/A) (N/A, -0.02, N/A)	238.1	N/A	4.6619 [ 4.0000 ]	116.5% { 128.6% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 418333	(10.57, N/A) (N/A, -0.01, N/A)	1036.9	N/A	18.9381 [ 20.0000 ]	94.7% { 122.2% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 224727	(10.67, N/A) (N/A, -0.01, N/A)	924.1	N/A	18.8924 [ 20.0000 ]	94.5% { 113.2% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 783838	(6.49, N/A) (N/A, -0.03, N/A)	846.3	N/A	7.9420 [ 8.0000 ]	99.3% { 119.9% }			

# ANALYSIS DATA SHEET

## LCS

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0355-BS1
Sampled:		Prepared:	12/19/22 08:59
Solids:		Preparation:	1633
Batch:	BBL0355	Sequence:	SB03903
Column:	1	Calibration:	2251019
			Instrument: Saphira
			File ID: S2022-12-20A (12)
			Analyzed: 12/20/22 12:25
			Dilution: 1

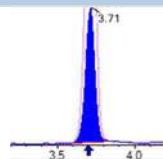
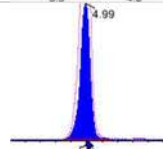
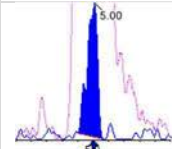
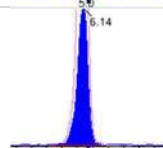
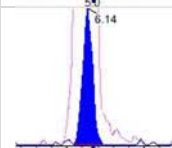
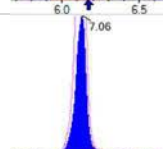
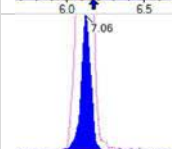
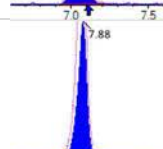
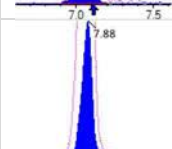
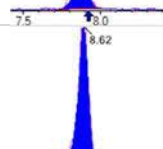
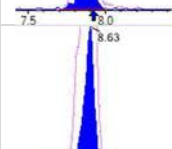
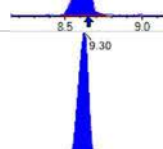
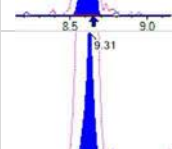
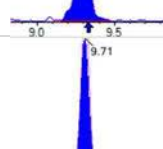
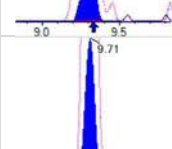
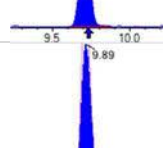
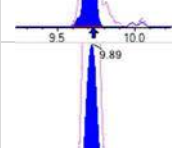
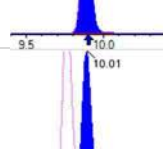
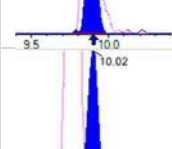
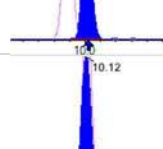
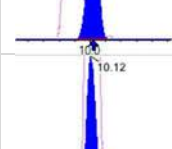
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PFBA	15.1	1.6	0.21	
PFPEA	8.03	0.80	0.065	
PFHXA	3.59	0.40	0.055	
PFHPA	3.85	0.40	0.041	
PFOA	4.29	0.40	0.15	
PFNA	4.25	0.40	0.082	
PFDA	4.58	0.40	0.10	
PFUnA	4.33	0.40	0.16	
PFDOA	3.66	0.40	0.11	
PFTRDA	4.39	0.40	0.20	
PFTEDA	3.25	0.40	0.20	
PFBS	3.30	0.40	0.037	
PFPEs	3.33	0.40	0.063	
PFHXS	3.41	0.40	0.032	
PFHPS	3.99	0.40	0.051	
PFOS	3.96	0.40	0.064	
PFNS	4.43	0.40	0.12	
PFDS	4.05	0.40	0.15	
PFDOS	4.01	0.40	0.12	
4:2FTS	14.6	1.6	0.29	
6:2FTS	14.4	1.6	0.31	
8:2FTS	16.7	1.6	0.082	
PFOSA	4.02	0.40	0.10	
NMeFOSA	15.9	1.6	0.47	
NEtFOSA	16.2	1.6	0.41	
NMeFOSAA	3.46	0.40	0.11	
NEtFOSAA	3.19	0.40	0.11	
NMeFOSE	16.8	1.6	1.0	
NEtFOSE	16.0	1.6	1.0	
HFPO-DA	7.53	0.80	0.17	

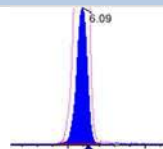
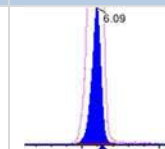
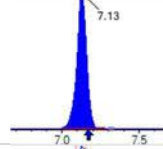
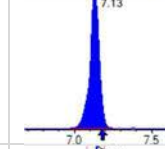
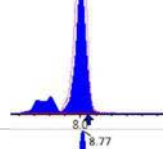
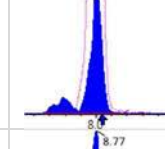
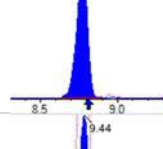
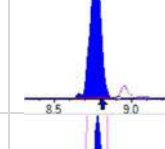
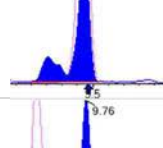
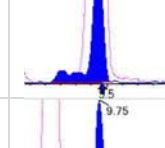
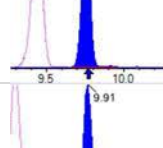
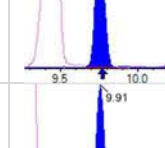
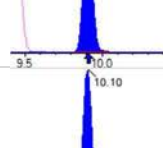
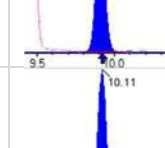
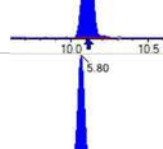
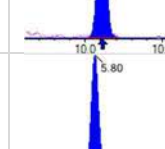
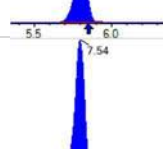
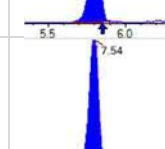
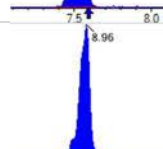
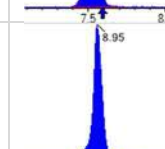

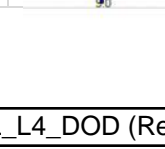


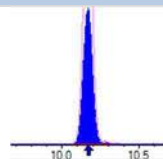
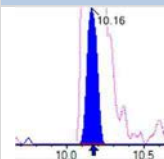
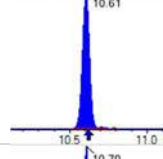
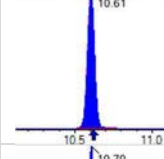
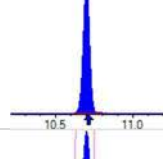
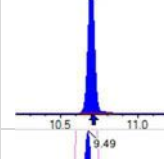
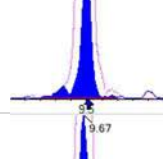
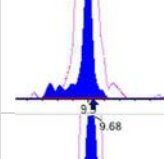
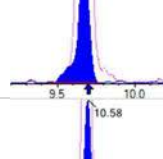
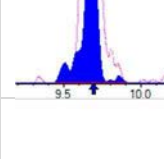
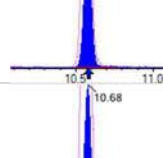
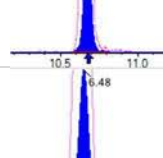
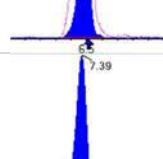
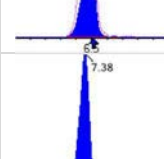
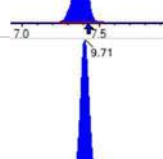
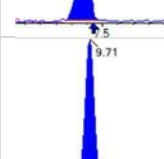
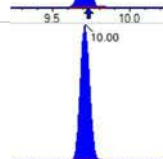
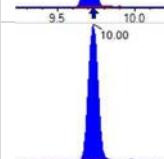

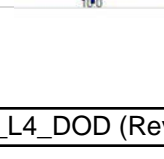
**ANALYSIS DATA SHEET****LCS**

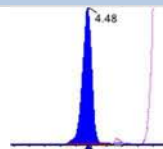
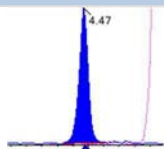
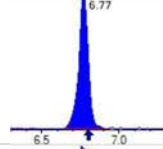
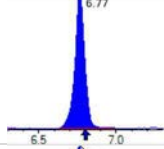
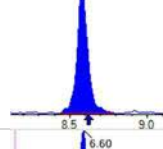
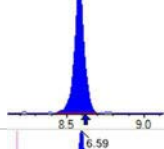
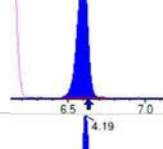
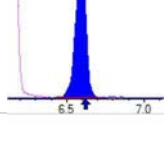
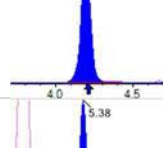
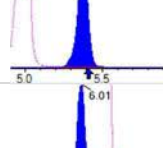
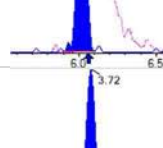
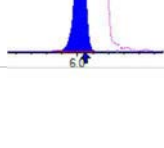
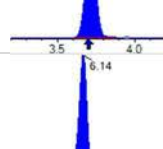
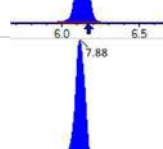
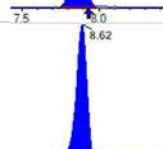

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0355-BS1
Sampled:		File ID:	S2022-12-20A (12)
Solids:		Prepared:	12/19/22 08:59
Batch:	BBL0355	Analyzed:	12/20/22 12:25
Column:	1	Preparation:	1633
		Dilution:	1
		Sequence:	SB03903
		Calibration:	2251019
		Instrument:	Saphira

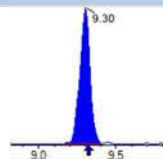
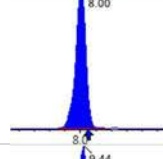
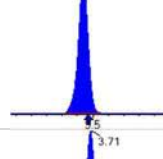
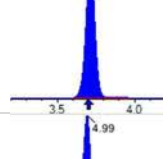
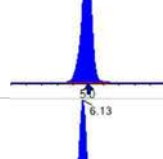
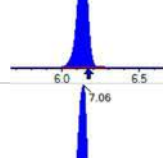
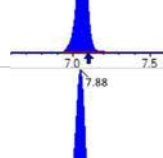
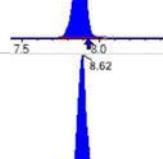
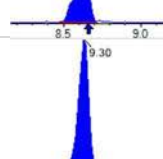
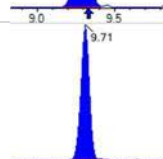
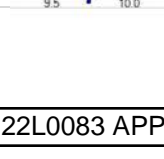
COMPOUND	CONC. (ng/L)	LOQ	DL	Q
ADONA	7.08	0.80	0.12	
PFEESA	6.79	0.80	0.11	
PFMPA	7.30	0.80	0.054	
PFMBA	7.58	0.80	0.091	
NFDHA	9.74	0.80	0.30	IR1
9CL-PF3ONS	7.76	0.80	0.21	
11CL-PF3OUDS	6.75	0.80	0.21	
3:3FTCA	14.6	1.6	0.57	IR1
5:3FTCA	14.8	1.6	0.44	
7:3FTCA	15.0	1.6	0.55	

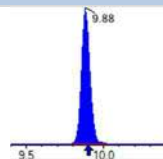
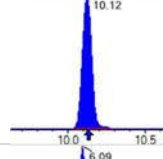
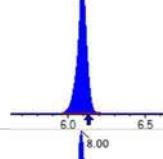
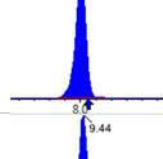
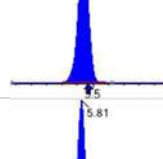
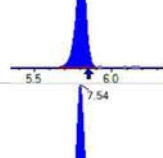
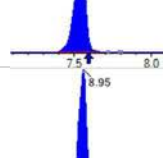
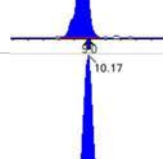
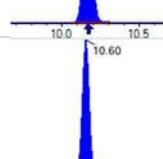
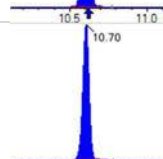

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 236528	(3.71, 1.00) (0.00, N/A, 0.0)	58.9	N/A 0.0 0.0	3.7826 [ 4.0000 ]	94.6%			
PFPeA	(262.9 / 219.0) 180008 (262.9 / 69.0) 2021	(4.99, 1.00) (0.00, N/A, -0.4)	535.4 46.0	0.0112 13154.7 92.3	2.0063 [ 2.0000 ]	100.3%			
PFHxA	(313.0 / 269.0) 129473 (313.0 / 119.0) 11226	(6.14, 1.00) (0.00, N/A, 0.1)	323.2 129.3	0.0867 88.4 91.3	0.8984 [ 1.0000 ]	89.8%			
PFHpA	(363.0 / 319.0) 123388 (363.0 / 169.0) 35629	(7.06, 1.00) (0.00, N/A, 0.1)	439.5 375.8	0.2888 92.4 100.0	0.9622 [ 1.0000 ]	96.2%			
PFOA	(413.0 / 369.0) 135597 (413.0 / 169.0) 41031	(7.88, 1.00) (0.01, N/A, 0.1)	370.6 365.9	0.3026 89.9 92.7	1.0728 [ 1.0000 ]	107.3%			
PFNA	(463.0 / 419.0) 95041 (463.0 / 169.0) 17947	(8.62, 1.00) (0.00, N/A, -0.5)	385.3 90.2	0.1888 94.1 82.8	1.0623 [ 1.0000 ]	106.2%			
PFDA	(513.0 / 469.0) 134880 (513.0 / 169.0) 11493	(9.30, 1.00) (0.00, N/A, -0.4)	206.1 250.2	0.0852 107.1 91.7	1.1454 [ 1.0000 ]	114.5%			
PFUnA	(563.0 / 519.0) 167447 (563.0 / 169.0) 16957	(9.71, 1.00) (0.00, N/A, -0.1)	325.4 172.8	0.1013 90.4 88.1	1.0825 [ 1.0000 ]	108.2%			
PFDoA	(613.0 / 569.0) 173409 (613.0 / 169.0) 22342	(9.89, 1.00) (0.00, N/A, -0.2)	400.8 119.5	0.1288 102.6 96.9	0.9148 [ 1.0000 ]	91.5%			
PFTrDA	(663.0 / 619.0) 171608 (663.0 / 169.0) 25359	(10.01, 1.01) (N/A, -0.01, -0.6)	348.8 534.2	0.1478 70.7 82.0	1.0970 [ 1.0000 ]	109.7%			
PFTeDA	(713.0 / 669.0) 122328 (713.0 / 169.0) 23721	(10.12, 1.00) (-0.01, N/A, 0.1)	351.3 158.9	0.1939 85.4 91.3	0.8133 [ 1.0000 ]	81.3%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(298.9 / 80.0) 192046 (298.9 / 99.0) 136981	(6.09, 1.00) (0.00, N/A, -0.2)	583.7 614.7	0.7133 104.9 108.9	0.8245 [0.8847]	93.2%			
PFPeS	(349.0 / 80.0) 331741 (349.0 / 99.0) 120856	(7.13, 0.89) (N/A, -0.05, -0.2)	633.9 533.1	0.3643 97.6 81.3	0.8319 [0.9384]	88.7%			
PFHxS	(399.0 / 80.0) 288409 (399.0 / 99.0) 100685	(8.00, 1.00) (0.00, N/A, -0.1)	58612.0 5444.7	0.3491 101.8 99.4	0.8531 [0.9110]	93.7%			
PFHpS	(449.0 / 80.0) 263384 (449.0 / 99.0) 80276	(8.77, 0.93) (N/A, -0.04, 0.3)	477.7 324.2	0.3048 103.9 112.8	0.9966 [0.9514]	104.7%			
PFOS	(499.0 / 80.0) 324756 (499.0 / 99.0) 75932	(9.44, 1.00) (0.01, N/A, 0.1)	82.9 115.2	0.2338 102.3 102.9	0.9911 [0.9275]	106.9%			
PFNS	(549.0 / 80.0) 417193 (549.0 / 99.0) 112596	(9.76, 1.03) (N/A, -0.01, 0.2)	528.9 327.2	0.2699 108.2 98.6	1.1073 [0.9599]	115.4%			
PFDS	(599.0 / 80.0) 470667 (599.0 / 99.0) 122034	(9.91, 1.05) (N/A, -0.01, -0.1)	624.4 471.5	0.2593 101.7 119.9	1.0124 [0.9631]	105.1%			
PFDoS	(698.9 / 80.0) 243462 (698.9 / 99.0) 55826	(10.10, 1.07) (N/A, -0.01, -0.3)	713.2 691.0	0.2293 111.6 101.0	1.0032 [0.9696]	103.5%			
4:2FTS	(327.0 / 307.0) 275487 (327.0 / 81.0) 149796	(5.80, 1.00) (0.00, N/A, 0.1)	752.5 418.2	0.5438 108.8 97.9	3.6551 [3.7381]	97.8%			
6:2FTS	(427.0 / 407.0) 160988 (427.0 / 81.0) 108204	(7.54, 1.00) (0.00, N/A, 0.1)	583.1 519.6	0.6721 93.8 101.6	3.5901 [3.7962]	94.6%			
8:2FTS	(527.0 / 507.0) 140682 (527.0 / 81.0) 102507	(8.96, 1.00) (0.00, N/A, 0.6)	381.5 250.5	0.7286 103.6 122.9	4.1872 [3.8332]	109.2%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 484651 (498.0 / 478.0) 12605	(10.17, 1.00) (0.00, N/A, 0.3)	832.3 95.7	0.0260 110.0 128.6	1.0043 [ 1.0000 ]	100.4%			
NMeFOSA	(511.9 / 219.0) 248012 (511.9 / 169.0) 155538	(10.61, 1.00) (0.00, N/A, 0.0)	734.3 766.0	0.6271 89.9 89.1	3.9866 [ 4.0000 ]	99.7%			
NEiFOSA	(526.0 / 219.0) 245699 (526.0 / 169.0) 257292	(10.70, 1.00) (0.00, N/A, 0.1)	1138.1 937.2	1.0472 93.0 99.1	4.0554 [ 4.0000 ]	101.4%			
NMeFOSAA	(570.0 / 419.0) 50032 (570.0 / 483.0) 30477	(9.50, 1.00) (0.01, N/A, 0.2)	188.5 883.7	0.6091 129.7 134.1	0.8650 [ 1.0000 ]	86.5%			
NEiFOSAA	(584.0 / 419.0) 55013 (584.0 / 526.0) 36740	(9.67, 1.00) (0.00, N/A, -0.3)	511.2 130.0	0.6678 86.7 129.9	0.7977 [ 1.0000 ]	79.8%			
NMeFOSE	(616.1 / 59.0) 110712	(10.58, 1.00) (0.01, N/A, 0.0)	600.3	N/A 0.0 0.0	4.1950 [ 4.0000 ]	104.9%			
NEiFOSE	(630.0 / 59.0) 27296	(10.68, 1.00) (0.01, N/A, 0.0)	524.5	N/A 0.0 0.0	4.0002 [ 4.0000 ]	100.0%			
HFPO-DA	(285.0 / 169.0) 109563 (285.0 / 185.0) 310924	(6.48, 1.00) (0.00, N/A, 0.1)	556.9 811.1	2.8379 111.3 101.6	1.8836 [ 2.0000 ]	94.2%			
ADONA	(377.0 / 85.0) 427063 (377.0 / 251.0) 50211	(7.39, 1.14) (N/A, -0.05, 0.1)	748.8 194.6	0.1176 93.8 99.5	1.7711 [ 1.8854 ]	93.9%			
9CI-Pf3ONS	(531.0 / 351.0) 1326021 (533.0 / 353.0) 439585	(9.71, 1.50) (N/A, -0.02, 0.0)	471.9 560.2	0.3315 104.7 111.9	1.9392 [ 1.8665 ]	103.9%			
11CI-PF3OUDS	(631.0 / 451.0) 759923 (633.0 / 453.0) 261774	(10.00, 1.54) (N/A, -0.01, -0.1)	1017.0 748.7	0.3445 117.7 107.2	1.6865 [ 1.8864 ]	89.4%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 14091 (241.0 / 117.0) 23762	(4.48, 0.90) (N/A, -0.01, 0.2)	480.6 302.7	1.6864 0.1 96.8	3.6617 [4.0000]	91.5%			IR1,
5:3FTCA	(341.0 / 236.7) 108865 (341.0 / 217.0) 176342	(6.77, 1.10) (N/A, -0.03, 0.3)	439.7 475.0	1.6198 102.5 102.2	3.7097 [4.0000]	92.7%			
7:3FTCA	(441.0 / 317.0) 123900 (441.0 / 337.0) 96110	(8.58, 1.40) (N/A, -0.04, -0.1)	202.2 337.8	0.7757 95.4 89.9	3.7412 [4.0000]	93.5%			
PFEESA	(315.0 / 135.0) 251149 (315.0 / 83.0) 79950	(6.60, 1.08) (N/A, -0.03, 0.1)	690.3 492.8	0.3183 112.6 119.6	1.6970 [1.7849]	95.1%			
PFMPA	(229.0 / 85.0) 44185	(4.19, 0.84) (N/A, -0.01, 0.0)	668.4	N/A 0.0 0.0	1.8246 [2.0000]	91.2%			
PFMBA	(279.0 / 85.0) 149771	(5.38, 1.08) (N/A, -0.03, 0.0)	1005.8	N/A 0.0 0.0	1.8946 [2.0000]	94.7%			
NFDHA	(201.0 / 85.0) 7239 (295.0 / 201.0) 39540	(6.01, 0.98) (N/A, -0.04, -0.4)	170.1 591.7	5.4617 0.7 80.7	2.4339 [2.0000]	121.7%			IR1,
13C3_PFBA_IIS	(216.0 / 172.0) 92809	(3.72, N/A) (N/A, 0.02, N/A)	898.2	N/A	1.0615 [1.0000]	106.2% {129.3%}			
13C2_PFHxA_IIS	(315.1 / 270.0) 145359	(6.14, N/A) (N/A, -0.03, N/A)	703.3	N/A	1.1048 [1.0000]	110.5% {124.4%}			
13C4_PFOA_IIS	(417.0 / 372.0) 118544	(7.88, N/A) (N/A, -0.05, N/A)	448.9	N/A	0.9471 [1.0000]	94.7% {117.5%}			
13C5_PFNA_IIS	(468.0 / 423.0) 94810	(8.62, N/A) (N/A, -0.03, N/A)	208.6	N/A	0.9498 [1.0000]	95.0% {97.6%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 96459	(9.30, N/A) (N/A, -0.02, N/A)	362.0	N/A	0.9302 [ 1.0000 ]	93.0% { 140.8% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 236313	(8.00, N/A) (N/A, -0.05, N/A)	635.3	N/A	0.9989 [ 1.0000 ]	99.9% { 112.0% }			
13C4_PFOS_IIS	(502.8 / 79.9) 195699	(9.44, N/A) (N/A, -0.03, N/A)	450.4	N/A	0.9755 [ 1.0000 ]	97.5% { 123.0% }			
13C4_PFBA_EIS	(217.0 / 172.0) 753192	(3.71, N/A) (N/A, 0.02, N/A)	863.1	N/A	7.8386 [ 8.0000 ]	98.0% { 132.4% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 396394	(4.99, N/A) (N/A, -0.01, N/A)	739.6	N/A	3.7041 [ 4.0000 ]	92.6% { 122.0% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 317695	(6.13, N/A) (N/A, -0.04, N/A)	680.8	N/A	1.8566 [ 2.0000 ]	92.8% { 133.1% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 284024	(7.06, N/A) (N/A, -0.04, N/A)	562.5	N/A	1.8787 [ 2.0000 ]	93.9% { 128.4% }			
13C8_PFOA_EIS	(421.0 / 376.0) 266709	(7.88, N/A) (N/A, -0.05, N/A)	616.1	N/A	2.0361 [ 2.0000 ]	101.8% { 116.1% }			
13C9_PFNA_EIS	(472.0 / 427.0) 105876	(8.62, N/A) (N/A, -0.04, N/A)	373.0	N/A	1.0223 [ 1.0000 ]	102.2% { 129.0% }			
13C6_PFDA_EIS	(519.0 / 474.0) 127726	(9.30, N/A) (N/A, -0.03, N/A)	255.8	N/A	0.9772 [ 1.0000 ]	97.7% { 118.2% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 207561	(9.71, N/A) (N/A, -0.01, N/A)	329.0	N/A	1.1029 [ 1.0000 ]	110.3% { 136.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 236653	(9.88, N/A) (N/A, -0.01, N/A)	640.6	N/A	1.1150 [ 1.0000 ]	111.5% { 129.9% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 157162	(10.12, N/A) (N/A, -0.01, N/A)	594.6	N/A	1.2184 [ 1.0000 ]	121.8% { 139.5% }			
13C3_PFBs_EIS	(302.0 / 80.0) 852873	(6.09, N/A) (N/A, -0.04, N/A)	791.2	N/A	2.2098 [ 2.0000 ]	110.5% { 128.9% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 425128	(8.00, N/A) (N/A, -0.05, N/A)	703.5	N/A	2.1240 [ 2.0000 ]	106.2% { 123.7% }			
13C8_PFOS_EIS	(507.0 / 80.0) 596239	(9.44, N/A) (N/A, -0.03, N/A)	431.8	N/A	1.8547 [ 2.0000 ]	92.7% { 108.4% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 94535	(5.81, N/A) (N/A, -0.04, N/A)	514.4	N/A	4.3439 [ 4.0000 ]	108.6% { 112.2% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 116170	(7.54, N/A) (N/A, -0.05, N/A)	510.3	N/A	4.1654 [ 4.0000 ]	104.1% { 130.6% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 91688	(8.95, N/A) (N/A, -0.03, N/A)	277.6	N/A	3.6670 [ 4.0000 ]	91.7% { 104.2% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 969676	(10.17, N/A) (N/A, -0.01, N/A)	916.3	N/A	2.0726 [ 2.0000 ]	103.6% { 116.3% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 155950	(10.60, N/A) (N/A, -0.01, N/A)	779.6	N/A	1.3380 [ 2.0000 ]	66.9% { 76.5% }			
D5_NEtFOSA_EIS	(531.1 / 169.0) 132878	(10.70, N/A) (N/A, -0.01, N/A)	570.8	N/A	1.2209 [ 2.0000 ]	61.0% { 71.9% }			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: BBL0355-BS1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (12)  
 Acquired: 2022/12/20 - 12:25

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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) 319248	(9.49, N/A) (N/A, -0.02, N/A)	415.3	N/A	4.2336 [ 4.0000 ]	105.8% { 135.5% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 306013	(9.67, N/A) (N/A, -0.02, N/A)	261.0	N/A	4.8828 [ 4.0000 ]	122.1% { 136.7% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 414523	(10.57, N/A) (N/A, -0.01, N/A)	843.2	N/A	18.4891 [ 20.0000 ]	92.4% { 121.1% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 213787	(10.67, N/A) (N/A, -0.01, N/A)	1079.2	N/A	17.7078 [ 20.0000 ]	88.5% { 107.7% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 761552	(6.48, N/A) (N/A, -0.03, N/A)	858.6	N/A	7.3096 [ 8.0000 ]	91.4% { 116.5% }			



**ANALYSIS DATA SHEET****MRL Check**

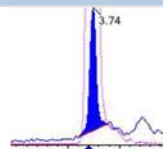
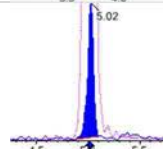
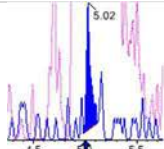
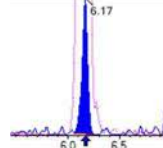
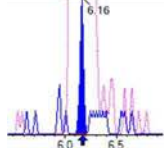
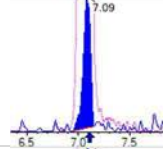
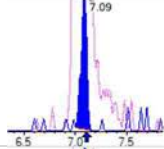
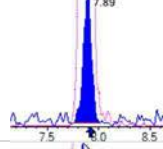
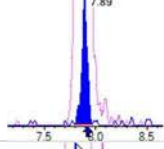
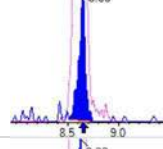
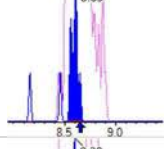
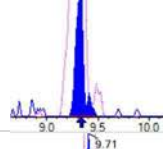
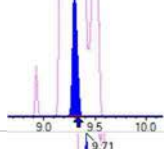
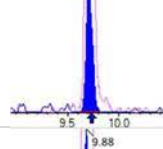
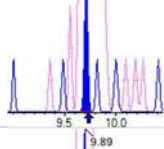
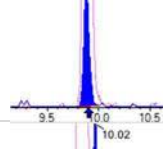
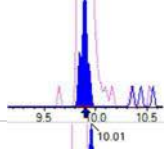
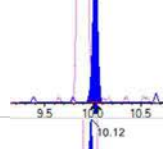
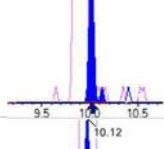
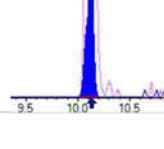
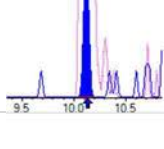
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Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0355-MRL1
Sampled:		File ID:	S2022-12-20A (37)
Solids:		Prepared:	12/19/22 08:59
Batch:	BBL0355	Analyzed:	12/20/22 19:04
Column:	1	Preparation:	1633
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		Calibration:	2251019
		Instrument:	Saphira
		Sequence:	SB03903

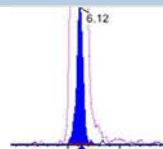
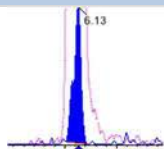
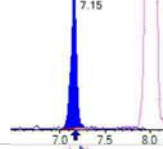
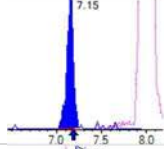
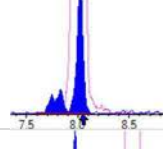
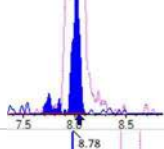
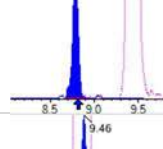
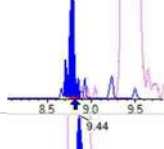
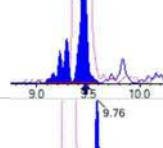
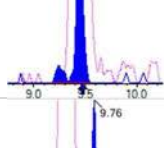
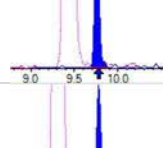
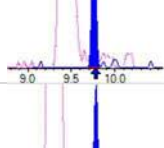
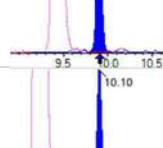
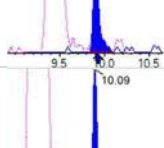
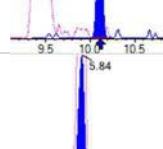
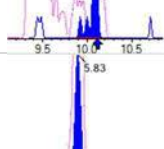
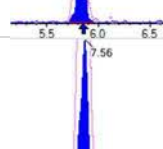
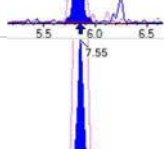
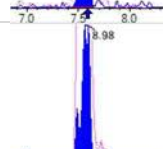
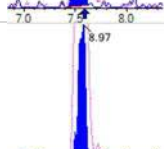

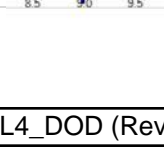
COMPOUND	CONC. (ng/L)	LOQ	DL	Q
PFBA	1.51	1.6	0.21	J
PFPEA	0.680	0.80	0.065	J
PFHXA	0.342	0.40	0.055	J
PFHPA	0.393	0.40	0.041	J
PFOA	0.440	0.40	0.15	
PFNA	0.447	0.40	0.082	IR1
PFDA	0.394	0.40	0.10	J
PFUnA	0.413	0.40	0.16	IR1
PFDOA	0.441	0.40	0.11	
PFTRDA	0.338	0.40	0.20	IR2, J
PFTEDA	0.373	0.40	0.20	J
PFBS	0.330	0.40	0.037	J
PFPEs	0.340	0.40	0.063	J
PFHXS	0.317	0.40	0.032	J
PFHPS	0.388	0.40	0.051	J
PFOS	0.400	0.40	0.064	
PFNS	0.371	0.40	0.12	J
PFDS	0.367	0.40	0.15	J
PFDOS	0.236	0.40	0.12	J
4:2FTS	1.29	1.6	0.29	J
6:2FTS	1.31	1.6	0.31	J
8:2FTS	1.09	1.6	0.082	IR2, J
PFOSA	0.371	0.40	0.10	J
NMeFOSA	1.38	1.6	0.47	J
NEtFOSA	1.19	1.6	0.41	J
NMeFOSAA	0.285	0.40	0.11	IR1, J
NEtFOSAA	0.225	0.40	0.11	IR2, J
NMeFOSE	1.39	1.6	1.0	J
NEtFOSE	1.78	1.6	1.0	
HFPO-DA	0.534	0.80	0.17	IR2, J

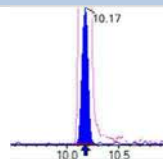
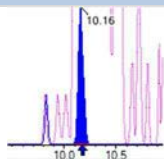
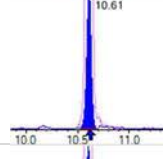
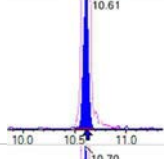
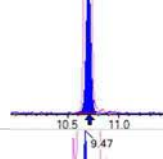
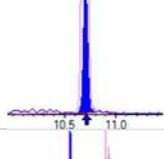
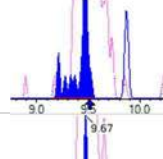
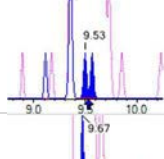
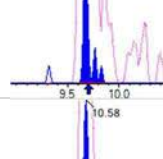
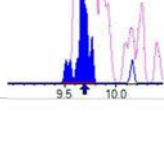
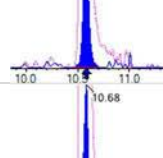
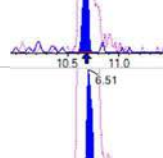
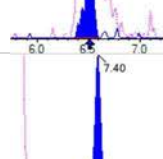
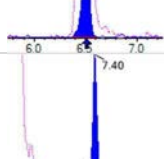
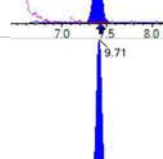
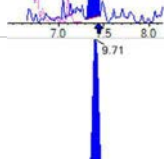
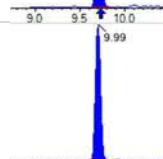
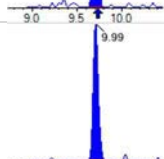
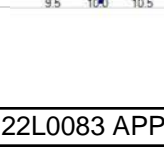
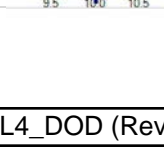
**ANALYSIS DATA SHEET****MRL Check**

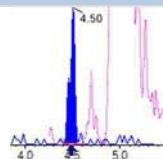
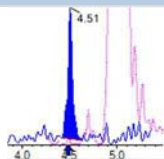
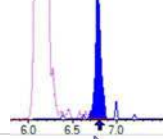
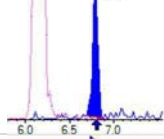
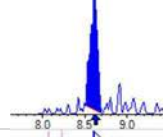
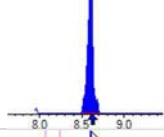
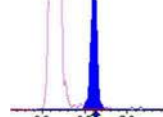
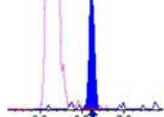
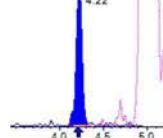
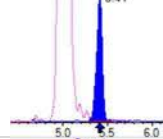
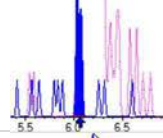
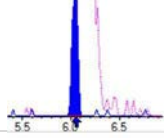
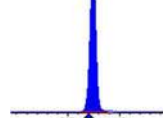
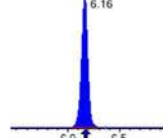
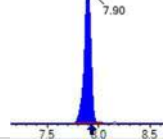
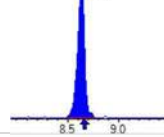
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Matrix:	Water	Laboratory ID:	BBL0355-MRL1
Sampled:		File ID:	S2022-12-20A (37)
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Solids:		Analyzed:	12/20/22 19:04
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Column:	1	Instrument:	Saphira

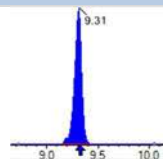
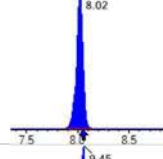
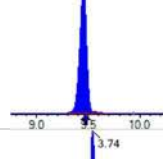
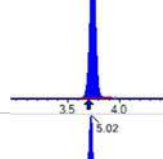
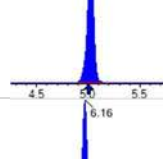
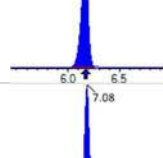
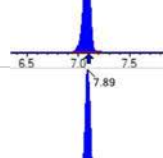
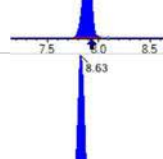
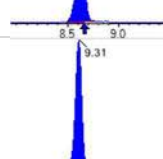
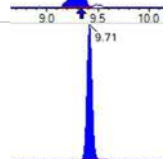

COMPOUND	CONC. (ng/L)	LOQ	DL	Q
ADONA	0.636	0.80	0.12	J
PFEESA	0.501	0.80	0.11	IR2, J
PFMPA	0.588	0.80	0.054	J
PFMBA	0.684	0.80	0.091	J
NFDHA	0.474	0.80	0.30	IR1, J
9CL-PF3ONS	0.651	0.80	0.21	J
11CL-PF3OUDS	0.701	0.80	0.21	J
3:3FTCA	1.03	1.6	0.57	IR1, J
5:3FTCA	1.21	1.6	0.44	J
7:3FTCA	1.66	1.6	0.55	

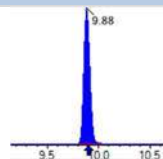
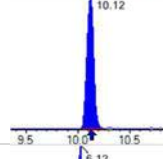
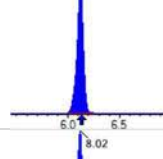
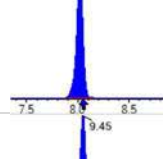
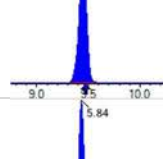
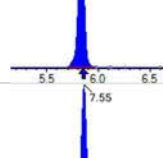
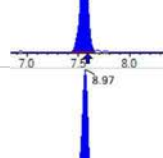
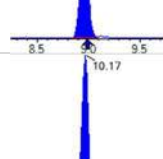
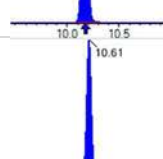
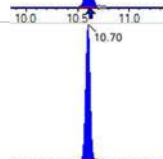

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 21364	(3.74, 1.00) (0.00, N/A, 0.0)	40.1	N/A 0.0 0.0	0.3784 [0.4000]	94.6%			
PFPeA	(262.9 / 219.0) 15177 (262.9 / 69.0) 218	(5.02, 1.00) (0.00, N/A, 0.0)	135.5 14.6	0.0144 16848.5 118.2	0.1701 [0.2000]	85.0%			
PFHxA	(313.0 / 269.0) 11756 (313.0 / 119.0) 752	(6.17, 1.00) (0.00, N/A, 0.1)	70.4 24.9	0.0640 65.2 67.3	0.0856 [0.1000]	85.6%			
PFHpA	(363.0 / 319.0) 10645 (363.0 / 169.0) 2833	(7.09, 1.00) (0.00, N/A, -0.1)	50.9 44.4	0.2661 85.1 92.1	0.0983 [0.1000]	98.3%			
PFOA	(413.0 / 369.0) 13942 (413.0 / 169.0) 4885	(7.89, 1.00) (0.00, N/A, -0.1)	54.9 117.1	0.3504 104.0 107.4	0.1101 [0.1000]	110.1%			
PFNA	(463.0 / 419.0) 10077 (463.0 / 169.0) 1122	(8.65, 1.00) (0.02, N/A, 3.1)	55.9 19.7	0.1114 55.5 48.8	0.1118 [0.1000]	111.8%			IR1,
PFDA	(513.0 / 469.0) 11906 (513.0 / 169.0) 1070	(9.32, 1.00) (0.01, N/A, 1.2)	57.8 9006.8	0.0899 113.0 96.7	0.0985 [0.1000]	98.5%			
PFUnA	(563.0 / 519.0) 16923 (563.0 / 169.0) 796	(9.71, 1.00) (0.00, N/A, 0.0)	73.6 31.5	0.0470 42.0 40.9	0.1033 [0.1000]	103.3%			IR1,
PFDoA	(613.0 / 569.0) 19598 (613.0 / 169.0) 3331	(9.88, 1.00) (0.00, N/A, -0.8)	159.1 70.3	0.1700 135.3 127.9	0.1103 [0.1000]	110.3%			
PFTrDA	(663.0 / 619.0) 12384 (663.0 / 169.0) 4448	(10.02, 1.01) (N/A, 0.00, 0.5)	199.0 850.1	0.3592 171.8 199.4	0.0845 [0.1000]	84.5%			IR2,
PFTeDA	(713.0 / 669.0) 11080 (713.0 / 169.0) 2534	(10.12, 1.00) (0.00, N/A, 0.2)	168.2 25.5	0.2287 100.8 107.7	0.0933 [0.1000]	93.3%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(298.9 / 80.0) 17700 (298.9 / 99.0) 11045	(6.12, 1.00) (0.00, N/A, -0.6)	335.3 88.0	0.6240 91.8 95.3	0.0825 [0.0885]	93.3%			
PFPeS	(349.0 / 80.0) 32121 (349.0 / 99.0) 10706	(7.15, 0.89) (N/A, -0.02, 0.3)	221.5 139.4	0.3333 89.3 74.3	0.0851 [0.0938]	90.7%			
PFHxS	(399.0 / 80.0) 25321 (399.0 / 99.0) 9121	(8.02, 1.00) (0.00, N/A, 0.3)	1746.8 686.4	0.3602 105.1 102.6	0.0791 [0.0911]	86.9%			
PFHpS	(449.0 / 80.0) 25487 (449.0 / 99.0) 5898	(8.78, 0.93) (N/A, -0.02, 0.2)	184.7 47.3	0.2314 78.9 85.6	0.0969 [0.0951]	101.8%			
PFOS	(499.0 / 80.0) 32627 (499.0 / 99.0) 10086	(9.46, 1.00) (0.01, N/A, 0.9)	240.3 436913.5	0.3091 135.3 136.1	0.1000 [0.0927]	107.9%			
PFNS	(549.0 / 80.0) 34761 (549.0 / 99.0) 8963	(9.76, 1.03) (N/A, -0.01, -0.1)	144.1 97.7	0.2579 103.3 94.2	0.0927 [0.0960]	96.6%			
PFDS	(599.0 / 80.0) 42452 (599.0 / 99.0) 12271	(9.90, 1.05) (N/A, -0.02, -0.3)	197.1 77.9	0.2891 113.4 133.7	0.0917 [0.0963]	95.3%			
PFDoS	(698.9 / 80.0) 14278 (698.9 / 99.0) 3460	(10.10, 1.07) (N/A, -0.01, 0.9)	94.2 85.0	0.2423 117.9 106.7	0.0591 [0.0970]	61.0%			QC,
4:2FTS	(327.0 / 307.0) 24434 (327.0 / 81.0) 15027	(5.84, 1.00) (0.00, N/A, 0.4)	372.2 97.3	0.6150 123.0 110.7	0.3224 [0.3738]	86.2%			
6:2FTS	(427.0 / 407.0) 13592 (427.0 / 81.0) 9357	(7.56, 1.00) (0.01, N/A, 0.6)	114.6 94.5	0.6884 96.1 104.1	0.3268 [0.3796]	86.1%			
8:2FTS	(527.0 / 507.0) 10072 (527.0 / 81.0) 10669	(8.98, 1.00) (0.01, N/A, 0.8)	302102.1 134.0	1.0592 150.6 178.6	0.2718 [0.3833]	70.9%			IR2,

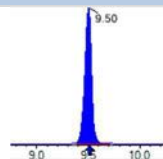
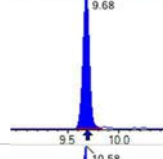
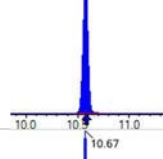
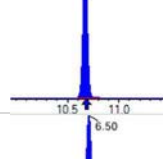
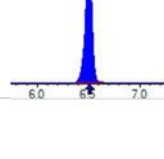
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 42770 (498.0 / 478.0) 1233	(10.17, 1.00) (0.00, N/A, 0.9)	230.4 8300.0	0.0288 122.0 142.6	0.0928 [0.1000]	92.8%			
NMeFOSA	(511.9 / 219.0) 18839 (511.9 / 169.0) 14219	(10.61, 1.00) (0.00, N/A, 0.0)	202.5 339.9	0.7548 108.3 107.3	0.3447 [0.4000]	86.2%			
NEIFOSA	(526.0 / 219.0) 18650 (526.0 / 169.0) 20069	(10.70, 1.00) (0.01, N/A, 0.0)	397.3 191.6	1.0761 95.5 101.8	0.2981 [0.4000]	74.5%			
NMeFOSAA	(570.0 / 419.0) 4105 (570.0 / 483.0) 541	(9.47, 1.00) (-0.03, N/A, -3.7)	123969.1 37.9	0.1318 28.1 29.0	0.0713 [0.1000]	71.3%			IR1,
NEIFOSAA	(584.0 / 419.0) 3688 (584.0 / 526.0) 3977	(9.67, 1.00) (-0.01, N/A, 0.0)	91.8 1093.2	1.0785 140.0 209.8	0.0563 [0.1000]	56.3%			QC,IR2,
NMeFOSE	(616.1 / 59.0) 8268	(10.58, 1.00) (0.00, N/A, 0.0)	104.4	N/A 0.0 0.0	0.3471 [0.4000]	86.8%			
NEtFOSE	(630.0 / 59.0) 2730	(10.68, 1.00) (0.01, N/A, 0.0)	95.7	N/A 0.0 0.0	0.4453 [0.4000]	111.3%			
HFPO-DA	(285.0 / 169.0) 7734 (285.0 / 185.0) 30633	(6.51, 1.00) (0.00, N/A, 0.3)	126.0 260.8	3.9607 155.3 141.8	0.1334 [0.2000]	66.7%			QC,IR2,
ADONA	(377.0 / 85.0) 38193 (377.0 / 251.0) 5912	(7.40, 1.14) (N/A, -0.04, -0.3)	376.9 38.6	0.1548 123.4 131.0	0.1589 [0.1885]	84.3%			
9CI-Pf3ONS	(531.0 / 351.0) 110949 (533.0 / 353.0) 34727	(9.71, 1.49) (N/A, -0.01, 0.3)	306.5 107.1	0.3130 98.8 105.6	0.1628 [0.1867]	87.2%			
11CI-PF3OUDS	(631.0 / 451.0) 78734 (633.0 / 453.0) 22141	(9.99, 1.54) (N/A, -0.01, 0.1)	1796.2 286.6	0.2812 96.1 87.5	0.1754 [0.1886]	93.0%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 985 (241.0 / 117.0) 1874	(4.50, 0.90) (N/A, 0.02, -0.1)	59.8 38.3	1.9028 0.1 109.2	0.2573 [0.4000]	64.3%			QC,IR1,
5:3FTCA	(341.0 / 236.7) 8444 (341.0 / 217.0) 15486	(6.79, 1.10) (N/A, -0.01, -0.2)	120.7 85.2	1.8339 116.1 115.7	0.3019 [0.4000]	75.5%			
7:3FTCA	(441.0 / 317.0) 13079 (441.0 / 337.0) 10621	(8.61, 1.40) (N/A, -0.01, 0.5)	37.0 845.0	0.8121 99.9 94.1	0.4143 [0.4000]	103.6%			
PFEESA	(315.0 / 135.0) 17665 (315.0 / 83.0) 8978	(6.61, 1.07) (N/A, -0.01, -0.1)	233.8 128.9	0.5083 179.8 190.9	0.1252 [0.1785]	70.2%			IR2,
PFMPA	(229.0 / 85.0) 3541	(4.22, 0.84) (N/A, 0.02, 0.0)	134.1	N/A 0.0 0.0	0.1471 [0.2000]	73.5%			
PFMBA	(279.0 / 85.0) 13435	(5.41, 1.08) (N/A, 0.01, 0.0)	344.8	N/A 0.0 0.0	0.1709 [0.2000]	85.4%			
NFDHA	(201.0 / 85.0) 635 (295.0 / 201.0) 3856	(6.05, 0.98) (N/A, -0.01, 0.4)	18.9 252.8	6.0682 0.8 89.7	0.1185 [0.2000]	59.3%			QC,IR1,
13C3_PFBa_IIS	(216.0 / 172.0) 82684	(3.74, N/A) (N/A, 0.04, N/A)	930.9	N/A	0.9457 [1.0000]	94.6% {115.1%}			
13C2_PFHxA_IIS	(315.1 / 270.0) 145059	(6.16, N/A) (N/A, -0.01, N/A)	760.5	N/A	1.1025 [1.0000]	110.2% {124.2%}			
13C4_PFOA_IIS	(417.0 / 372.0) 132100	(7.90, N/A) (N/A, -0.03, N/A)	496.5	N/A	1.0554 [1.0000]	105.5% {130.9%}			
13C5_PFNA_IIS	(468.0 / 423.0) 84875	(8.63, N/A) (N/A, -0.02, N/A)	315.9	N/A	0.8503 [1.0000]	85.0% {87.4%}			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 104975	(9.31, N/A) (N/A, -0.01, N/A)	449.3	N/A	1.0123 [ 1.0000 ]	101.2% { 153.3% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 246280	(8.02, N/A) (N/A, -0.03, N/A)	654.2	N/A	1.0410 [ 1.0000 ]	104.1% { 116.7% }			
13C4_PFOS_IIS	(502.8 / 79.9) 196604	(9.45, N/A) (N/A, -0.02, N/A)	399.8	N/A	0.9800 [ 1.0000 ]	98.0% { 123.6% }			
13C4_PFBA_EIS	(217.0 / 172.0) 680063	(3.74, N/A) (N/A, 0.04, N/A)	944.9	N/A	7.9442 [ 8.0000 ]	99.3% { 119.5% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 394210	(5.02, N/A) (N/A, 0.02, N/A)	900.1	N/A	3.6913 [ 4.0000 ]	92.3% { 121.3% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 302816	(6.16, N/A) (N/A, -0.01, N/A)	719.9	N/A	1.7733 [ 2.0000 ]	88.7% { 126.9% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 239930	(7.08, N/A) (N/A, -0.02, N/A)	660.7	N/A	1.5903 [ 2.0000 ]	79.5% { 108.5% }			
13C8_PFOA_EIS	(421.0 / 376.0) 267231	(7.89, N/A) (N/A, -0.03, N/A)	700.5	N/A	1.8307 [ 2.0000 ]	91.5% { 116.3% }			
13C9_PFNA_EIS	(472.0 / 427.0) 106644	(8.63, N/A) (N/A, -0.02, N/A)	312.5	N/A	1.1503 [ 1.0000 ]	115.0% { 129.9% }			
13C6_PFDA_EIS	(519.0 / 474.0) 131161	(9.31, N/A) (N/A, -0.02, N/A)	225.6	N/A	0.9221 [ 1.0000 ]	92.2% { 121.3% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 219774	(9.71, N/A) (N/A, -0.01, N/A)	529.9	N/A	1.0730 [ 1.0000 ]	107.3% { 144.9% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 221717	(9.88, N/A) (N/A, -0.01, N/A)	541.1	N/A	0.9599 [ 1.0000 ]	96.0% { 121.7% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 124120	(10.12, N/A) (N/A, -0.01, N/A)	368.3	N/A	0.8842 [ 1.0000 ]	88.4% { 110.2% }			
13C3_PFBs_EIS	(302.0 / 80.0) 785199	(6.12, N/A) (N/A, -0.01, N/A)	699.4	N/A	1.9521 [ 2.0000 ]	97.6% { 118.7% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 402308	(8.02, N/A) (N/A, -0.03, N/A)	892.2	N/A	1.9287 [ 2.0000 ]	96.4% { 117.1% }			
13C8_PFOS_EIS	(507.0 / 80.0) 593433	(9.45, N/A) (N/A, -0.02, N/A)	608.4	N/A	1.8375 [ 2.0000 ]	91.9% { 107.9% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 95064	(5.84, N/A) (N/A, -0.01, N/A)	515.6	N/A	4.1915 [ 4.0000 ]	104.8% { 112.8% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 107756	(7.55, N/A) (N/A, -0.04, N/A)	442.2	N/A	3.7073 [ 4.0000 ]	92.7% { 121.2% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 101115	(8.97, N/A) (N/A, -0.02, N/A)	382.7	N/A	3.8804 [ 4.0000 ]	97.0% { 114.9% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 926574	(10.17, N/A) (N/A, 0.00, N/A)	625.2	N/A	1.9714 [ 2.0000 ]	98.6% { 111.1% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 137002	(10.61, N/A) (N/A, -0.01, N/A)	811.5	N/A	1.1700 [ 2.0000 ]	58.5% { 67.2% }			
D5_NeIFOSA_EIS	(531.1 / 169.0) 137221	(10.70, N/A) (N/A, -0.01, N/A)	1193.5	N/A	1.2550 [ 2.0000 ]	62.8% { 74.3% }			



Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 317869	(9.50, N/A) (N/A, -0.01, N/A)	392.1	N/A	4.1959 [ 4.0000 ]	104.9% { 134.9% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 290535	(9.68, N/A) (N/A, -0.01, N/A)	271.2	N/A	4.6145 [ 4.0000 ]	115.4% { 129.8% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 374111	(10.58, N/A) (N/A, 0.00, N/A)	738.5	N/A	16.6097 [ 20.0000 ]	83.0% { 109.3% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 192124	(10.67, N/A) (N/A, -0.01, N/A)	1135.5	N/A	15.8402 [ 20.0000 ]	79.2% { 96.8% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 758882	(6.50, N/A) (N/A, -0.01, N/A)	774.1	N/A	7.2991 [ 8.0000 ]	91.2% { 116.0% }			

# ANALYSIS DATA SHEET

Blank

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0357-BLK1
Sampled:		Prepared:	12/19/22 09:03
Solids:		Preparation:	1633
Batch:	BBL0357	Sequence:	SB03903
Column:	1	Calibration:	2251019
		Instrument:	Saphira
		File ID:	S2022-12-20A (6)
		Analyzed:	12/20/22 11:09
		Dilution:	1

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
PFBA	0.80 U	1.6	0.80	0.21	U
PFPEA	0.40 U	0.80	0.40	0.065	U
PFHXA	0.20 U	0.40	0.20	0.055	U
PFHPA	0.20 U	0.40	0.20	0.041	U
PFOA	0.20 U	0.40	0.20	0.15	U
PFNA	0.20 U	0.40	0.20	0.082	U
PFDA	0.20 U	0.40	0.20	0.10	U
PFUnA	0.20 U	0.40	0.20	0.16	U
PFDOA	0.20 U	0.40	0.20	0.11	U
PFTRDA	0.30 U	0.40	0.30	0.20	U
PFTEDA	0.20 U	0.40	0.20	0.20	U
PFBS	0.20 U	0.40	0.20	0.037	U
PFPEs	0.20 U	0.40	0.20	0.063	U
PFHXS	0.20 U	0.40	0.20	0.032	U
PFHPS	0.20 U	0.40	0.20	0.051	U
PFOS	0.0751 J	0.40	0.20	0.064	IR2, J
PFNS	0.20 U	0.40	0.20	0.12	U
PFDS	0.20 U	0.40	0.20	0.15	U
PFDOS	0.20 U	0.40	0.20	0.12	U
4:2FTS	0.80 U	1.6	0.80	0.29	U
6:2FTS	0.80 U	1.6	0.80	0.31	U
8:2FTS	0.80 U	1.6	0.80	0.082	U
PFOSA	0.20 U	0.40	0.20	0.10	U
NMeFOSA	0.80 U	1.6	0.80	0.47	U
NEtFOSA	0.80 U	1.6	0.80	0.41	U
NMeFOSAA	0.20 U	0.40	0.20	0.11	U
NEtFOSAA	0.20 U	0.40	0.20	0.11	U
NMeFOSE	1.2 U	1.6	1.2	1.0	U
NEtFOSE	1.2 U	1.6	1.2	1.0	U
HFPO-DA	0.40 U	0.80	0.40	0.17	U

**ANALYSIS DATA SHEET**

Blank

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0357-BLK1
Sampled:		Prepared:	12/19/22 09:03
Solids:		Preparation:	1633
Batch:	BBL0357	Sequence:	SB03903
Column:	1	Calibration:	2251019
			Instrument: Saphira
			File ID: S2022-12-20A (6)
			Analyzed: 12/20/22 11:09
			Dilution: 1

COMPOUND	CONC. (ng/L)	LOQ	LOD	DL	Q
ADONA	0.40 U	0.80	0.40	0.12	U
PFEESA	0.40 U	0.80	0.40	0.11	U
PFMPA	0.40 U	0.80	0.40	0.054	U
PFMBA	0.40 U	0.80	0.40	0.091	U
NFDHA	0.40 U	0.80	0.40	0.30	U
9CL-PF3ONS	0.40 U	0.80	0.40	0.21	U
11CL-PF3OUDS	0.40 U	0.80	0.40	0.21	U
3:3FTCA	0.80 U	1.6	0.80	0.57	U
5:3FTCA	0.80 U	1.6	0.80	0.44	U
7:3FTCA	0.80 U	1.6	0.80	0.55	U



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: BBL0357-BLK1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (6)  
 Acquired: 2022/12/20 - 11:09

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(212.9 / 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	(262.9 / 219.0) N/A (262.9 / 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			
PFTrDA	(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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: BBL0357-BLK1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (6)  
 Acquired: 2022/12/20 - 11:09

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	( 298.9 / 80.0 ) N/A ( 298.9 / 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 ) 6655 ( 499.0 / 99.0 ) 3668	( 9.44 , 1.00 ) ( -0.02 , N/A , -0.9 )	32.0 32.0	0.5512 241.2 242.6	0.0188	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	( 698.9 / 80.0 ) N/A ( 698.9 / 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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: BBL0357-BLK1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (6)  
 Acquired: 2022/12/20 - 11:09

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 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	(511.9 / 219.0) N/A (511.9 / 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) 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	(616.1 / 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			
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			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: BBL0357-BLK1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (6)  
 Acquired: 2022/12/20 - 11:09

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	(201.0 / 85.0) N/A (295.0 / 201.0) N/A	(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) 89134	(3.71, N/A) (N/A, 0.01, N/A)	696.2	N/A	1.0195 [ 1.0000 ]	101.9% { 124.1% }			
13C2_PFHxA_IIS	(315.1 / 270.0) 139698	(6.15, N/A) (N/A, -0.02, N/A)	795.8	N/A	1.0617 [ 1.0000 ]	106.2% { 119.6% }			
13C4_PFOA_IIS	(417.0 / 372.0) 114192	(7.90, N/A) (N/A, -0.02, N/A)	617.6	N/A	0.9123 [ 1.0000 ]	91.2% { 113.2% }			
13C5_PFNA_IIS	(468.0 / 423.0) 93696	(8.64, N/A) (N/A, -0.01, N/A)	258.2	N/A	0.9387 [ 1.0000 ]	93.9% { 96.5% }			



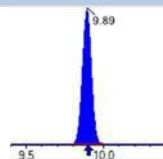
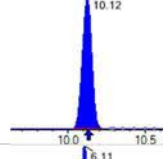
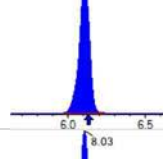
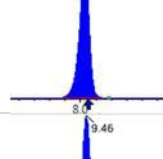
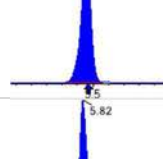
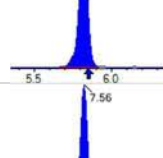
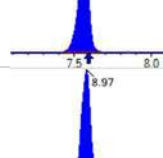
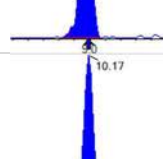
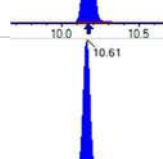
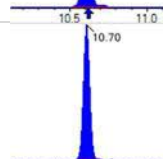

Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

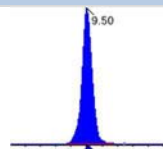
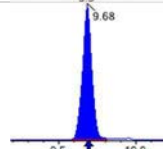
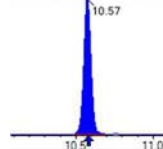
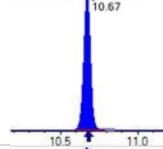
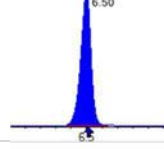
Sample I.D.: BBL0357-BLK1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (6)  
 Acquired: 2022/12/20 - 11:09

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(515.1 / 470.1) 101648	(9.32, N/A) (N/A, 0.00, N/A)	410.4	N/A	0.9802 [ 1.0000 ]	98.0% { 148.4% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 241883	(8.02, N/A) (N/A, -0.03, N/A)	796.5	N/A	1.0224 [ 1.0000 ]	102.2% { 114.6% }			
13C4_PFOS_IIS	(502.8 / 79.9) 189494	(9.47, N/A) (N/A, 0.00, N/A)	397.0	N/A	0.9445 [ 1.0000 ]	94.5% { 119.1% }			
13C4_PFBA_EIS	(217.0 / 172.0) 706520	(3.71, N/A) (N/A, 0.01, N/A)	837.3	N/A	7.6561 [ 8.0000 ]	95.7% { 124.2% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 379582	(5.00, N/A) (N/A, -0.01, N/A)	648.4	N/A	3.6907 [ 4.0000 ]	92.3% { 116.8% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 343510	(6.15, N/A) (N/A, -0.02, N/A)	784.7	N/A	2.0888 [ 2.0000 ]	104.4% { 143.9% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 241937	(7.08, N/A) (N/A, -0.02, N/A)	568.3	N/A	1.6652 [ 2.0000 ]	83.3% { 109.4% }			
13C8_PFOA_EIS	(421.0 / 376.0) 267905	(7.90, N/A) (N/A, -0.02, N/A)	496.9	N/A	2.1232 [ 2.0000 ]	106.2% { 116.6% }			
13C9_PFNA_EIS	(472.0 / 427.0) 95855	(8.64, N/A) (N/A, -0.01, N/A)	294.6	N/A	0.9366 [ 1.0000 ]	93.7% { 116.8% }			
13C6_PFDA_EIS	(519.0 / 474.0) 117245	(9.32, N/A) (N/A, -0.02, N/A)	232.3	N/A	0.8512 [ 1.0000 ]	85.1% { 108.5% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 209061	(9.71, N/A) (N/A, -0.01, N/A)	828.2	N/A	1.0542 [ 1.0000 ]	105.4% { 137.9% }			



Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 216357	(9.89, N/A) (N/A, -0.01, N/A)	544.2	N/A	0.9674 [ 1.0000 ]	96.7% { 118.8% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 104040	(10.12, N/A) (N/A, -0.01, N/A)	328.1	N/A	0.7654 [ 1.0000 ]	76.5% { 92.4% }			
13C3_PFBs_EIS	(302.0 / 80.0) 779308	(6.11, N/A) (N/A, -0.02, N/A)	748.3	N/A	1.9727 [ 2.0000 ]	98.6% { 117.8% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 433389	(8.03, N/A) (N/A, -0.02, N/A)	786.8	N/A	2.1154 [ 2.0000 ]	105.8% { 126.2% }			
13C8_PFOS_EIS	(507.0 / 80.0) 645112	(9.46, N/A) (N/A, -0.01, N/A)	475.2	N/A	2.0725 [ 2.0000 ]	103.6% { 117.3% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 99260	(5.82, N/A) (N/A, -0.03, N/A)	573.7	N/A	4.4560 [ 4.0000 ]	111.4% { 117.8% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 108283	(7.56, N/A) (N/A, -0.03, N/A)	572.2	N/A	3.7932 [ 4.0000 ]	94.8% { 121.8% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 78105	(8.97, N/A) (N/A, -0.01, N/A)	298.4	N/A	3.0518 [ 4.0000 ]	76.3% { 88.8% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 798822	(10.17, N/A) (N/A, 0.00, N/A)	650.6	N/A	1.7633 [ 2.0000 ]	88.2% { 95.8% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 124474	(10.61, N/A) (N/A, -0.01, N/A)	559.1	N/A	1.1029 [ 2.0000 ]	55.1% { 61.1% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 122757	(10.70, N/A) (N/A, -0.01, N/A)	860.9	N/A	1.1648 [ 2.0000 ]	58.2% { 66.4% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 262774	(9.50, N/A) (N/A, -0.01, N/A)	383.4	N/A	3.5987 [ 4.0000 ]	90.0% { 111.5% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 253307	(9.68, N/A) (N/A, -0.01, N/A)	335.3	N/A	4.1742 [ 4.0000 ]	104.4% { 113.2% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 332380	(10.57, N/A) (N/A, 0.00, N/A)	873.4	N/A	15.3106 [ 20.0000 ]	76.6% { 97.1% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 170738	(10.67, N/A) (N/A, 0.00, N/A)	958.5	N/A	14.6051 [ 20.0000 ]	73.0% { 86.0% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 754265	(6.50, N/A) (N/A, -0.02, N/A)	730.9	N/A	7.5330 [ 8.0000 ]	94.2% { 115.3% }			

# ANALYSIS DATA SHEET

## LCS

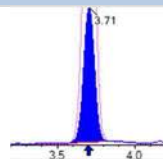
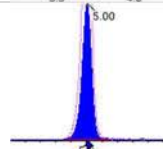
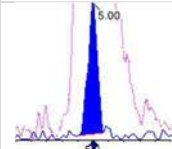
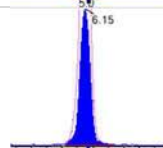
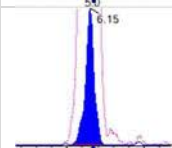
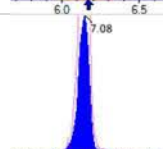
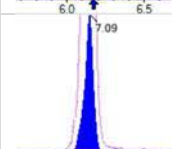
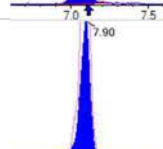
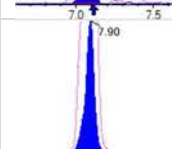
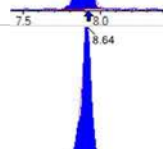
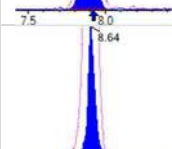
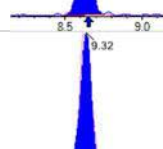
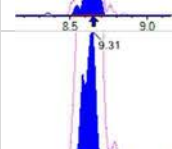
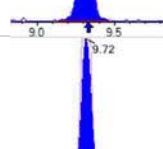
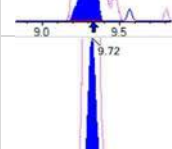
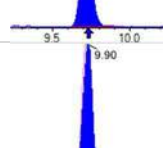
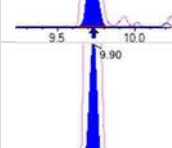
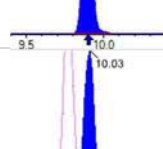
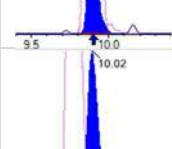
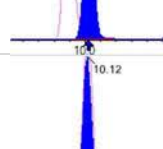
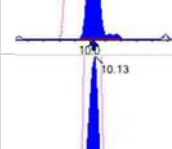
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Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0357-BS1
Sampled:		Prepared:	12/19/22 09:03
Solids:		Preparation:	1633
Batch:	BBL0357	Sequence:	SB03903
Column:	1	Calibration:	2251019
			Instrument: Saphira
			File ID: S2022-12-20A (7)
			Analyzed: 12/20/22 11:21
			Dilution: 1

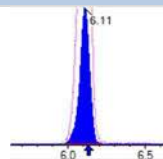
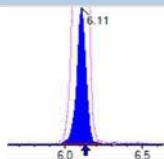
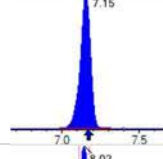
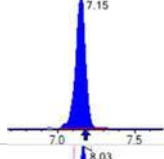
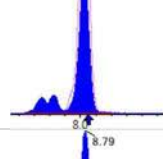
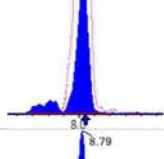
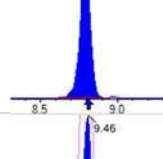
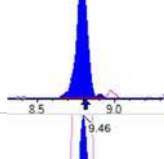
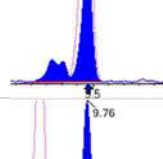
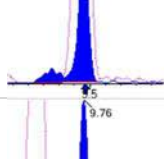
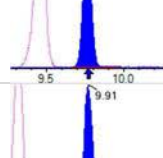
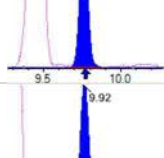
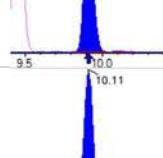
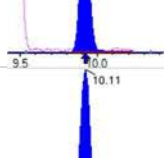
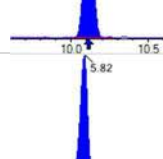
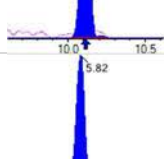
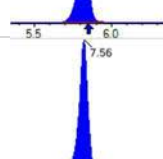
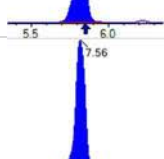
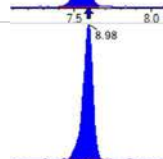
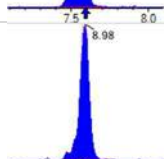

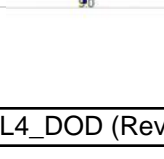
COMPOUND	CONC. (ng/L)	LOQ	DL	Q
PFBA	15.1	1.6	0.21	
PFPEA	8.16	0.80	0.065	
PFHXA	3.78	0.40	0.055	
PFHPA	3.97	0.40	0.041	
PFOA	4.12	0.40	0.15	
PFNA	4.50	0.40	0.082	
PFDA	3.90	0.40	0.10	
PFUnA	3.21	0.40	0.16	
PFDOA	4.71	0.40	0.11	
PFTRDA	4.49	0.40	0.20	
PFTEDA	3.32	0.40	0.20	
PFBS	3.52	0.40	0.037	
PFPEs	3.46	0.40	0.063	
PFHXS	3.36	0.40	0.032	
PFHPS	3.12	0.40	0.051	
PFOS	3.27	0.40	0.064	
PFNS	3.42	0.40	0.12	
PFDS	3.64	0.40	0.15	
PFDOS	3.98	0.40	0.12	
4:2FTS	14.5	1.6	0.29	
6:2FTS	16.0	1.6	0.31	
8:2FTS	15.9	1.6	0.082	
PFOSA	3.90	0.40	0.10	
NMeFOSA	15.6	1.6	0.47	
NEtFOSA	16.4	1.6	0.41	
NMeFOSAA	4.92	0.40	0.11	
NEtFOSAA	3.40	0.40	0.11	
NMeFOSE	16.8	1.6	1.0	
NEtFOSE	16.8	1.6	1.0	
HFPO-DA	8.04	0.80	0.17	

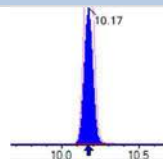
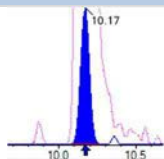
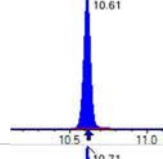
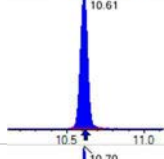
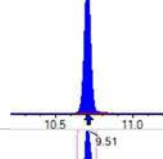
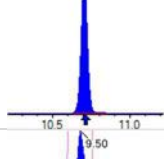
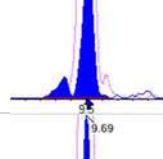
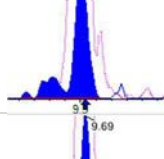
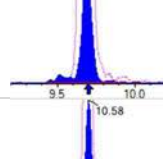
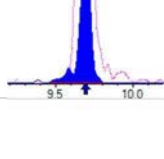
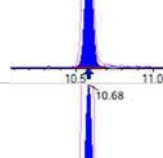
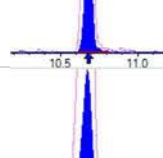
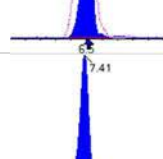
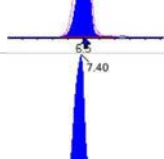
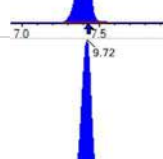
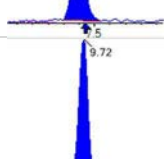
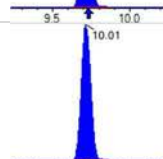
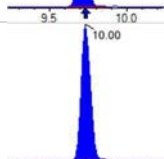

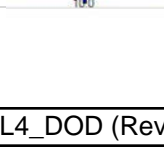
**ANALYSIS DATA SHEET****LCS**

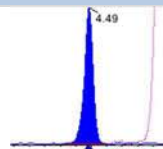
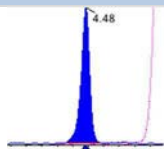
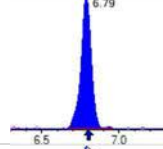
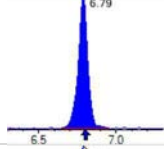
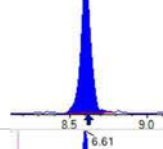
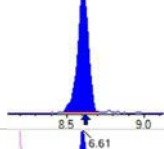
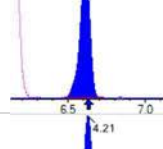
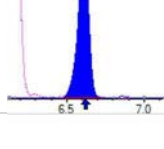
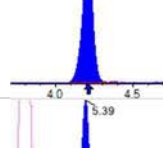
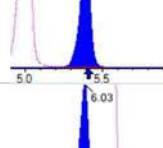
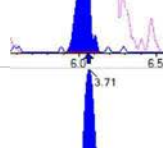
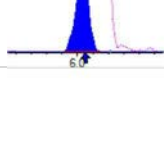
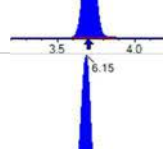
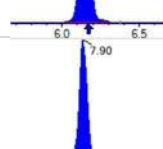
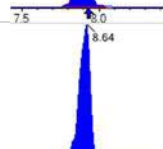

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0357-BS1
Sampled:		File ID:	S2022-12-20A (7)
		Prepared:	12/19/22 09:03
Solids:		Analyzed:	12/20/22 11:21
		Preparation:	1633
Batch:	BBL0357	Dilution:	1
		Sequence:	SB03903
		Calibration:	2251019
Column:	1	Instrument:	Saphira

COMPOUND	CONC. (ng/L)	LOQ	DL	Q
ADONA	7.69	0.80	0.12	
PFEESA	6.19	0.80	0.11	
PFMPA	7.58	0.80	0.054	
PFMBA	7.73	0.80	0.091	
NFDHA	6.32	0.80	0.30	IR1
9CL-PF3ONS	7.21	0.80	0.21	
11CL-PF3OUDS	7.08	0.80	0.21	
3:3FTCA	14.7	1.6	0.57	IR1
5:3FTCA	12.3	1.6	0.44	
7:3FTCA	14.6	1.6	0.55	

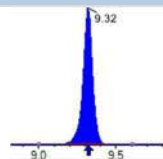
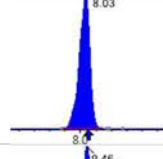
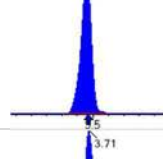
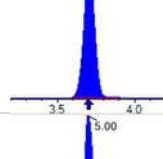
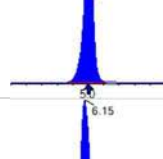
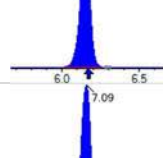
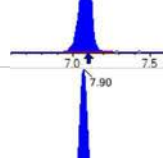
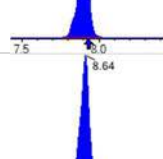
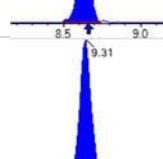
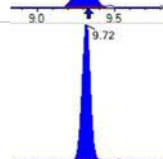
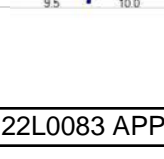
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBA	(212.9 / 169.0) 232580	(3.71, 1.00) (0.00, N/A, 0.0)	65.6	N/A 0.0 0.0	3.7784 [4.0000]	94.5%			
PFPeA	(262.9 / 219.0) 180372 (262.9 / 69.0) 1630	(5.00, 1.00) (0.00, N/A, 0.3)	673.3 55.0	0.0090 10589.8 74.3	2.0403 [2.0000]	102.0%			
PFHxA	(313.0 / 269.0) 143003 (313.0 / 119.0) 15250	(6.15, 1.00) (0.00, N/A, 0.0)	487.9 243.7	0.1066 108.7 112.3	0.9438 [1.0000]	94.4%			
PFHpA	(363.0 / 319.0) 116290 (363.0 / 169.0) 43913	(7.08, 1.00) (0.00, N/A, -0.2)	306.4 393.7	0.3776 120.8 130.8	0.9931 [1.0000]	99.3%			
PFOA	(413.0 / 369.0) 130326 (413.0 / 169.0) 42676	(7.90, 1.00) (0.00, N/A, 0.1)	396.4 407.5	0.3275 97.2 100.3	1.0288 [1.0000]	102.9%			
PFNA	(463.0 / 419.0) 96498 (463.0 / 169.0) 17441	(8.64, 1.00) (0.00, N/A, 0.2)	253.9 68.9	0.1807 90.1 79.3	1.1244 [1.0000]	112.4%			
PFDA	(513.0 / 469.0) 105895 (513.0 / 169.0) 8003	(9.32, 1.00) (0.01, N/A, 0.4)	239.0 146.6	0.0756 95.0 81.3	0.9739 [1.0000]	97.4%			
PFUnA	(563.0 / 519.0) 140049 (563.0 / 169.0) 15303	(9.72, 1.00) (0.00, N/A, -0.3)	375.8 122.8	0.1093 97.6 95.1	0.8037 [1.0000]	80.4%			
PFDoA	(613.0 / 569.0) 189476 (613.0 / 169.0) 22349	(9.90, 1.00) (0.01, N/A, -0.2)	576.2 138.2	0.1180 93.9 88.7	1.1781 [1.0000]	117.8%			
PFTrDA	(663.0 / 619.0) 148928 (663.0 / 169.0) 30453	(10.03, 1.01) (N/A, 0.00, 0.6)	475.1 163.5	0.2045 97.8 113.5	1.1221 [1.0000]	112.2%			
PFTeDA	(713.0 / 669.0) 120229 (713.0 / 169.0) 18588	(10.12, 1.00) (0.00, N/A, -0.6)	371.1 91.7	0.1546 68.1 72.8	0.8311 [1.0000]	83.1%			

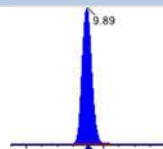
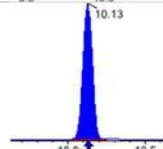
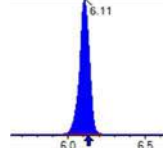
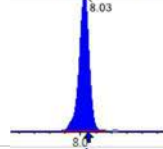
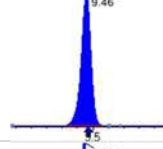
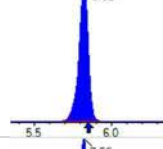
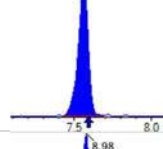
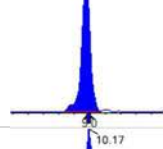
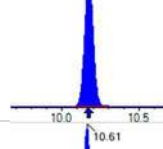
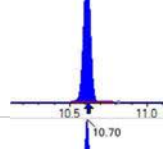
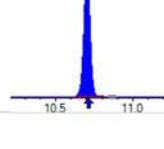
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFBS	(298.9 / 80.0) 192796 (298.9 / 99.0) 120834	(6.11, 1.00) (0.00, N/A, 0.2)	917.8 567.9	0.6267 92.2 95.7	0.8806 [0.8847]	99.5%			
PFPeS	(349.0 / 80.0) 340942 (349.0 / 99.0) 128012	(7.15, 0.89) (N/A, -0.02, 0.2)	581.2 433.2	0.3755 100.6 83.7	0.8652 [0.9384]	92.2%			
PFHxS	(399.0 / 80.0) 280301 (399.0 / 99.0) 95219	(8.02, 1.00) (0.00, N/A, -0.1)	10194.9 29872.3	0.3397 99.1 96.7	0.8390 [0.9110]	92.1%			
PFHpS	(449.0 / 80.0) 225241 (449.0 / 99.0) 69914	(8.79, 0.93) (N/A, -0.02, 0.1)	428.7 270.4	0.3104 105.8 114.9	0.7794 [0.9514]	81.9%			
PFOS	(499.0 / 80.0) 292869 (499.0 / 99.0) 77607	(9.46, 1.00) (0.01, N/A, 0.3)	94.6 115.2	0.2650 115.9 116.6	0.8174 [0.9275]	88.1%			
PFNS	(549.0 / 80.0) 352129 (549.0 / 99.0) 101514	(9.76, 1.03) (N/A, -0.01, 0.1)	484.5 400.9	0.2883 115.5 105.3	0.8547 [0.9599]	89.0%			
PFDS	(599.0 / 80.0) 462738 (599.0 / 99.0) 112360	(9.91, 1.05) (N/A, -0.01, -0.3)	663.6 383.2	0.2428 95.2 112.3	0.9102 [0.9631]	94.5%			
PFDoS	(698.9 / 80.0) 264299 (698.9 / 99.0) 48814	(10.11, 1.07) (N/A, 0.00, 0.1)	537.2 1282.1	0.1847 89.9 81.3	0.9960 [0.9696]	102.7%			
4:2FTS	(327.0 / 307.0) 294827 (327.0 / 81.0) 162858	(5.82, 1.00) (0.00, N/A, 0.2)	732.9 582.5	0.5524 110.5 99.4	3.6166 [3.7381]	96.7%			
6:2FTS	(427.0 / 407.0) 151496 (427.0 / 81.0) 113637	(7.56, 1.00) (0.00, N/A, 0.1)	457.6 333.9	0.7501 104.7 113.4	4.0069 [3.7962]	105.5%			
8:2FTS	(527.0 / 507.0) 143058 (527.0 / 81.0) 99429	(8.98, 1.00) (0.00, N/A, 0.2)	324.1 266.9	0.6950 98.8 117.2	3.9712 [3.8332]	103.6%			

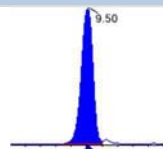
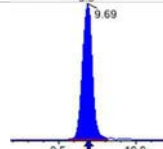
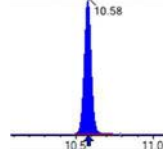
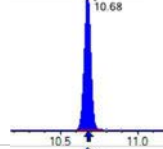
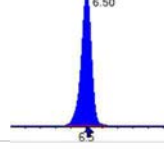
Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ RT ion[s])	S / N	Ion Ratio IR Vs MP% IR Vs CV%	Concentration [ True ] ng/mL	Q.C. Rec. {Area%CV}	Primary Transition	Confirmation Transition	Flag
PFOSA	(498.0 / 78.0) 422064 (498.0 / 478.0) 8261	(10.17, 1.00) (0.00, N/A, 0.2)	904.2 103.4	0.0196 82.8 96.8	0.9745 [ 1.0000 ]	97.4%			
NMeFOSA	(511.9 / 219.0) 202044 (511.9 / 169.0) 134690	(10.61, 1.00) (0.00, N/A, 0.1)	677.1 717.3	0.6666 95.6 94.8	3.9012 [ 4.0000 ]	97.5%			
NEIFOSA	(526.0 / 219.0) 230976 (526.0 / 169.0) 229743	(10.71, 1.00) (0.00, N/A, 0.1)	1214.2 767.7	0.9947 88.3 94.1	4.1102 [ 4.0000 ]	102.8%			
NMeFOSAA	(570.0 / 419.0) 61710 (570.0 / 483.0) 25362	(9.51, 1.00) (0.00, N/A, 0.3)	224.0 787.1	0.4110 87.5 90.5	1.2289 [ 1.0000 ]	122.9%			
NEIFOSAA	(584.0 / 419.0) 50287 (584.0 / 526.0) 30502	(9.69, 1.00) (0.00, N/A, -0.2)	1324.6 426.6	0.6066 78.7 118.0	0.8503 [ 1.0000 ]	85.0%			
NMeFOSE	(616.1 / 59.0) 91912	(10.58, 1.00) (0.01, N/A, 0.0)	471.4	N/A 0.0 0.0	4.2039 [ 4.0000 ]	105.1%			
NEtFOSE	(630.0 / 59.0) 22805	(10.68, 1.00) (0.01, N/A, 0.0)	454.2	N/A 0.0 0.0	4.2088 [ 4.0000 ]	105.2%			
HFPO-DA	(285.0 / 169.0) 112305 (285.0 / 185.0) 329361	(6.50, 1.00) (0.00, N/A, 0.2)	444.6 555.9	2.9327 115.0 105.0	2.0098 [ 2.0000 ]	100.5%			
ADONA	(377.0 / 85.0) 445226 (377.0 / 251.0) 54619	(7.41, 1.14) (N/A, -0.03, 0.1)	887.2 176.0	0.1227 97.8 103.9	1.9220 [ 1.8854 ]	101.9%			
9CI-Pf3ONS	(531.0 / 351.0) 1184762 (533.0 / 353.0) 394810	(9.72, 1.50) (N/A, 0.00, 0.1)	534.2 626.6	0.3332 105.2 112.5	1.8035 [ 1.8665 ]	96.6%			
11CI-PF3OUDS	(631.0 / 451.0) 766187 (633.0 / 453.0) 242118	(10.01, 1.54) (N/A, 0.00, 0.2)	927.2 608.9	0.3160 108.0 98.3	1.7700 [ 1.8864 ]	93.8%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 13921 (241.0 / 117.0) 24011	(4.49, 0.90) (N/A, 0.00, 0.1)	376.0 319.7	1.7249 0.1 99.0	3.6714 [4.0000]	91.8%			IR1,
5:3FTCA	(341.0 / 236.7) 94756 (341.0 / 217.0) 187754	(6.79, 1.10) (N/A, -0.01, 0.1)	454.0 431.0	1.9815 125.4 125.0	3.0710 [4.0000]	76.8%			
7:3FTCA	(441.0 / 317.0) 126849 (441.0 / 337.0) 84631	(8.60, 1.40) (N/A, -0.02, -0.2)	225.2 294.2	0.6672 82.0 77.3	3.6429 [4.0000]	91.1%			
PFEESA	(315.0 / 135.0) 240987 (315.0 / 83.0) 75974	(6.61, 1.07) (N/A, -0.01, 0.1)	672.8 326.6	0.3153 111.5 118.4	1.5487 [1.7849]	86.8%			
PFMPA	(229.0 / 85.0) 45188	(4.21, 0.84) (N/A, 0.00, 0.0)	637.8	N/A 0.0 0.0	1.8938 [2.0000]	94.7%			
PFMBA	(279.0 / 85.0) 150555	(5.39, 1.08) (N/A, -0.01, 0.0)	976.4	N/A 0.0 0.0	1.9329 [2.0000]	96.6%			
NFDHA	(201.0 / 85.0) 5063 (295.0 / 201.0) 37146	(6.03, 0.98) (N/A, -0.02, 0.2)	118.7 474.6	7.3361 0.9 108.4	1.5801 [2.0000]	79.0%			IR1,
13C3_PFBa_IIS	(216.0 / 172.0) 88314	(3.71, N/A) (N/A, 0.01, N/A)	885.8	N/A	1.0101 [1.0000]	101.0% {123.0%}			
13C2_PFHxA_IIS	(315.1 / 270.0) 140409	(6.15, N/A) (N/A, -0.01, N/A)	496.5	N/A	1.0671 [1.0000]	106.7% {120.2%}			
13C4_PFOA_IIS	(417.0 / 372.0) 127692	(7.90, N/A) (N/A, -0.03, N/A)	480.1	N/A	1.0202 [1.0000]	102.0% {126.6%}			
13C5_PFNAl_IIS	(468.0 / 423.0) 88384	(8.64, N/A) (N/A, -0.01, N/A)	267.5	N/A	0.8855 [1.0000]	88.5% {91.0%}			



Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(515.1 / 470.1) 90921	(9.32, N/A) (N/A, 0.00, N/A)	360.2	N/A	0.8767 [ 1.0000 ]	87.7% { 132.8% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 227403	(8.03, N/A) (N/A, -0.02, N/A)	654.3	N/A	0.9612 [ 1.0000 ]	96.1% { 107.7% }			
13C4_PFOS_IIS	(502.8 / 79.9) 218415	(9.46, N/A) (N/A, -0.01, N/A)	401.8	N/A	1.0887 [ 1.0000 ]	108.9% { 137.3% }			
13C4_PFBA_EIS	(217.0 / 172.0) 741432	(3.71, N/A) (N/A, 0.01, N/A)	1017.5	N/A	8.1090 [ 8.0000 ]	101.4% { 130.3% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 390580	(5.00, N/A) (N/A, 0.00, N/A)	698.9	N/A	3.7784 [ 4.0000 ]	94.5% { 120.2% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 334031	(6.15, N/A) (N/A, -0.02, N/A)	657.4	N/A	2.0209 [ 2.0000 ]	101.0% { 139.9% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 259369	(7.09, N/A) (N/A, -0.02, N/A)	529.0	N/A	1.7761 [ 2.0000 ]	88.8% { 117.3% }			
13C8_PFOA_EIS	(421.0 / 376.0) 267312	(7.90, N/A) (N/A, -0.03, N/A)	885.6	N/A	1.8945 [ 2.0000 ]	94.7% { 116.4% }			
13C9_PFNA_EIS	(472.0 / 427.0) 101566	(8.64, N/A) (N/A, -0.02, N/A)	302.5	N/A	1.0520 [ 1.0000 ]	105.2% { 123.7% }			
13C6_PFDA_EIS	(519.0 / 474.0) 117938	(9.31, N/A) (N/A, -0.02, N/A)	371.0	N/A	0.9573 [ 1.0000 ]	95.7% { 109.1% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 233816	(9.72, N/A) (N/A, -0.01, N/A)	324.9	N/A	1.3181 [ 1.0000 ]	131.8% { 154.2% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 200782	(9.89, N/A) (N/A, -0.01, N/A)	713.9	N/A	1.0036 [ 1.0000 ]	100.4% { 110.2% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 151146	(10.13, N/A) (N/A, 0.00, N/A)	347.2	N/A	1.2431 [ 1.0000 ]	124.3% { 134.2% }			
13C3_PFBs_EIS	(302.0 / 80.0) 801609	(6.11, N/A) (N/A, -0.02, N/A)	721.8	N/A	2.1584 [ 2.0000 ]	107.9% { 121.1% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 420130	(8.03, N/A) (N/A, -0.03, N/A)	765.4	N/A	2.1813 [ 2.0000 ]	109.1% { 122.3% }			
13C8_PFOS_EIS	(507.0 / 80.0) 651965	(9.46, N/A) (N/A, -0.01, N/A)	421.9	N/A	1.8171 [ 2.0000 ]	90.9% { 118.5% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 102248	(5.82, N/A) (N/A, -0.02, N/A)	628.7	N/A	4.8824 [ 4.0000 ]	122.1% { 121.3% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 97950	(7.56, N/A) (N/A, -0.03, N/A)	374.5	N/A	3.6497 [ 4.0000 ]	91.2% { 110.1% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 98309	(8.98, N/A) (N/A, -0.01, N/A)	362.7	N/A	4.0859 [ 4.0000 ]	102.1% { 111.7% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 870301	(10.17, N/A) (N/A, 0.00, N/A)	903.9	N/A	1.6667 [ 2.0000 ]	83.3% { 104.4% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 129824	(10.61, N/A) (N/A, 0.00, N/A)	714.6	N/A	0.9980 [ 2.0000 ]	49.9% { 63.7% }			
D5_NEiFOSA_EIS	(531.1 / 169.0) 123250	(10.70, N/A) (N/A, 0.00, N/A)	995.6	N/A	1.0147 [ 2.0000 ]	50.7% { 66.7% }			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT- CV[ $\mu$ min], $\Delta$ 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) 277153	(9.50, N/A) (N/A, 0.00, N/A)	401.0	N/A	3.2931 [ 4.0000 ]	82.3% { 117.6% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 262438	(9.69, N/A) (N/A, -0.01, N/A)	298.9	N/A	3.7520 [ 4.0000 ]	93.8% { 117.3% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 343403	(10.58, N/A) (N/A, 0.00, N/A)	589.6	N/A	13.7238 [ 20.0000 ]	68.6% { 100.3% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 169760	(10.68, N/A) (N/A, 0.00, N/A)	1032.6	N/A	12.5987 [ 20.0000 ]	63.0% { 85.5% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 731602	(6.50, N/A) (N/A, -0.01, N/A)	900.9	N/A	7.2697 [ 8.0000 ]	90.9% { 111.9% }			

# ANALYSIS DATA SHEET

## MRL Check

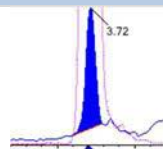
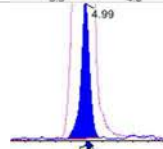
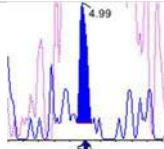
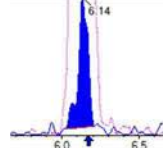
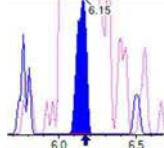
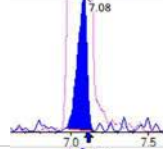
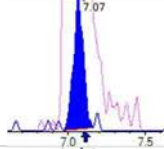
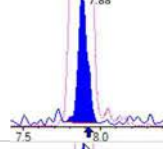
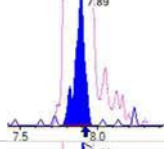
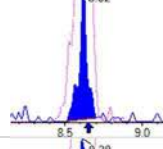
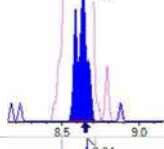
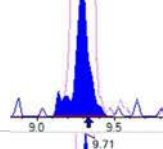
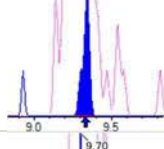
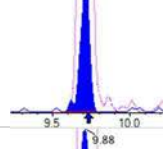
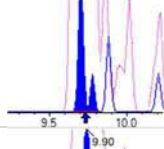
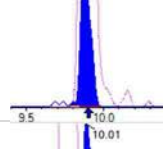
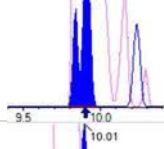
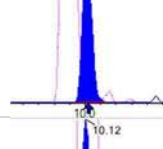
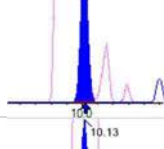
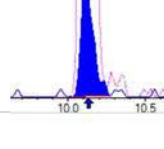
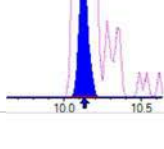
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Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0357-MRL1
Sampled:		Prepared:	12/19/22 09:03
Solids:		Preparation:	1633
Batch:	BBL0357	Sequence:	SB03903
Column:	1	Calibration:	2251019
		Instrument:	Saphira
		File ID:	S2022-12-20A (8)
		Analyzed:	12/20/22 11:34
		Dilution:	1

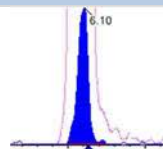
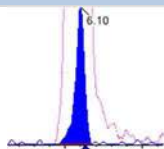
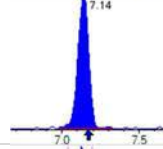
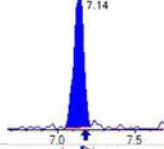
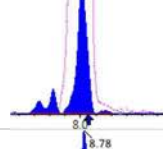
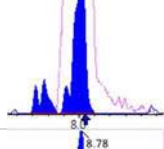
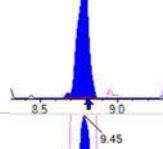
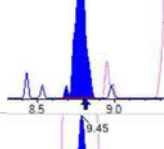
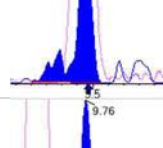
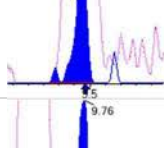
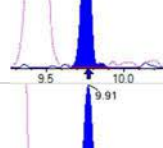
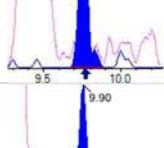
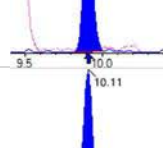
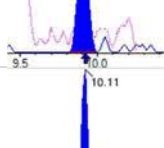
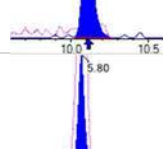
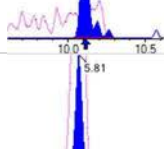
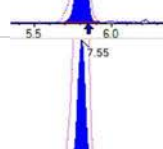
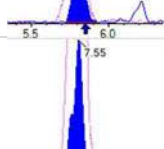
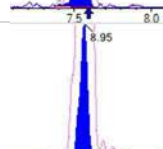
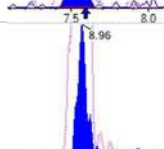

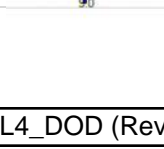
COMPOUND	CONC. (ng/L)	LOQ	DL	Q
PFBA	1.47	1.6	0.21	J
PFPEA	0.797	0.80	0.065	J
PFHXA	0.308	0.40	0.055	J
PFHPA	0.376	0.40	0.041	J
PFOA	0.476	0.40	0.15	
PFNA	0.441	0.40	0.082	IR2
PFDA	0.364	0.40	0.10	J
PFUnA	0.430	0.40	0.16	
PFDOA	0.343	0.40	0.11	J
PFTRDA	0.587	0.40	0.20	
PFTEDA	0.341	0.40	0.20	J
PFBS	0.397	0.40	0.037	J
PFPEs	0.354	0.40	0.063	J
PFHXS	0.368	0.40	0.032	J
PFHPS	0.312	0.40	0.051	J
PFOS	0.393	0.40	0.064	J
PFNS	0.408	0.40	0.12	
PFDS	0.370	0.40	0.15	J
PFDOS	0.354	0.40	0.12	J
4:2FTS	1.65	1.6	0.29	
6:2FTS	1.74	1.6	0.31	
8:2FTS	1.28	1.6	0.082	J
PFOSA	0.482	0.40	0.10	
NMeFOSA	1.13	1.6	0.47	J
NEtFOSA	1.31	1.6	0.41	J
NMeFOSAA	0.310	0.40	0.11	J
NEtFOSAA	0.365	0.40	0.11	IR2, J
NMeFOSE	1.40	1.6	1.0	J
NEtFOSE	1.88	1.6	1.0	
HFPO-DA	0.707	1.6	1.0	

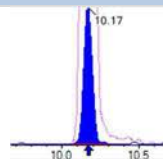
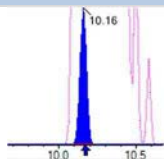
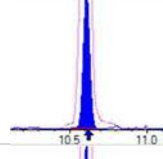
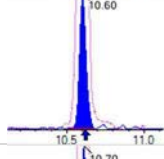
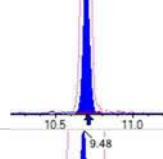
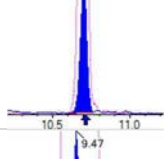
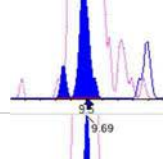
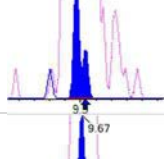
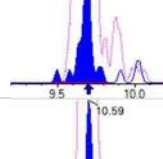
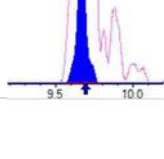
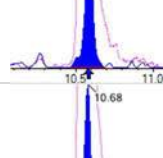
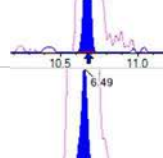
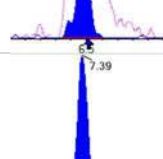
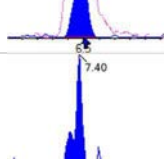
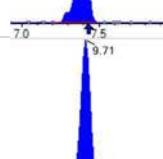
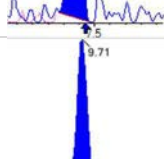
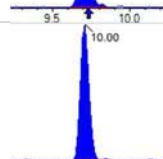
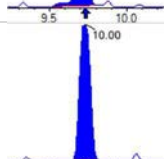

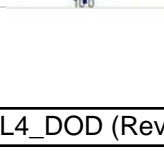
**ANALYSIS DATA SHEET****MRL Check**

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Matrix:	Water	Laboratory ID:	BBL0357-MRL1
Sampled:		File ID:	S2022-12-20A (8)
		Prepared:	12/19/22 09:03
Solids:		Analyzed:	12/20/22 11:34
		Preparation:	1633
Batch:	BBL0357	Dilution:	1
Column:	1	Sequence:	SB03903
		Calibration:	2251019
		Instrument:	Saphira

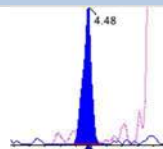
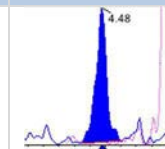
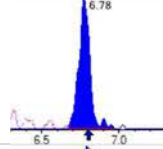
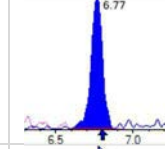
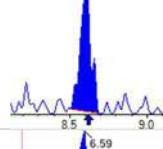
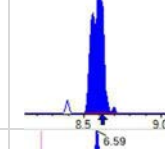
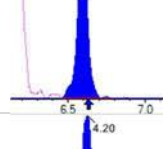
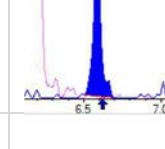
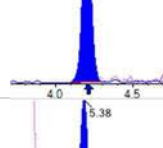
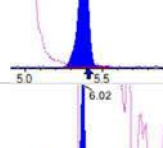
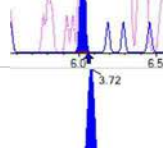
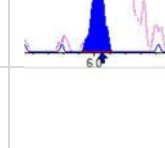
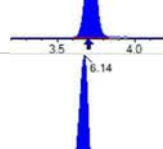
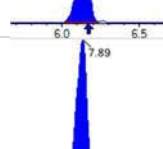
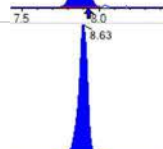

COMPOUND	CONC. (ng/L)	LOQ	DL	Q
ADONA	0.657	0.80	0.12	J
PFEESA	0.729	0.80	0.11	J
PFMPA	0.685	0.80	0.054	J
PFMBA	0.759	0.80	0.091	J
NFDHA	0.140	0.80	0.10	BS1, IR1, J
9CL-PF3ONS	0.698	0.80	0.21	J
11CL-PF3OUDS	0.520	0.80	0.21	J
3:3FTCA	1.68	1.6	0.57	IR1
5:3FTCA	1.50	1.6	0.44	J
7:3FTCA	1.30	1.6	0.55	J

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(212.9 / 169.0) 22011	(3.72, 1.00) (0.00, N/A, 0.0)	41.0	N/A 0.0 0.0	0.3668 [0.4000]	91.7%			
PFPeA	(262.9 / 219.0) 17386 (262.9 / 69.0) 230	(4.99, 1.00) (0.00, N/A, 0.4)	183.1 9.6	0.0132 15478.9 108.6	0.1992 [0.2000]	99.6%			
PFHxA	(313.0 / 269.0) 10670 (313.0 / 119.0) 942	(6.14, 1.00) (0.00, N/A, -0.5)	40.2 21.4	0.0883 90.0 93.0	0.0771 [0.1000]	77.1%			
PFHpA	(363.0 / 319.0) 11781 (363.0 / 169.0) 3494	(7.08, 1.00) (0.01, N/A, 0.4)	49.4 65.5	0.2965 94.9 102.7	0.0941 [0.1000]	94.1%			
PFOA	(413.0 / 369.0) 15461 (413.0 / 169.0) 4849	(7.88, 1.00) (0.00, N/A, -0.4)	59.6 76.2	0.3136 93.1 96.1	0.1189 [0.1000]	118.9%			
PFNA	(463.0 / 419.0) 10116 (463.0 / 169.0) 3331	(8.62, 1.00) (-0.01, N/A, -0.3)	48.3 28.0	0.3293 164.1 144.4	0.1101 [0.1000]	110.1%			IR2,
PFDA	(513.0 / 469.0) 12699 (513.0 / 169.0) 1082	(9.29, 1.00) (-0.01, N/A, -3.1)	32.1 8807.1	0.0852 107.1 91.7	0.0910 [0.1000]	91.0%			
PFUnA	(563.0 / 519.0) 17744 (563.0 / 169.0) 1314	(9.71, 1.00) (0.00, N/A, 0.5)	88.4 32.8	0.0740 66.1 64.4	0.1074 [0.1000]	107.4%			
PFDoA	(613.0 / 569.0) 15722 (613.0 / 169.0) 2463	(9.88, 1.00) (-0.01, N/A, -1.0)	107.6 32.8	0.1567 124.8 117.9	0.0857 [0.1000]	85.7%			
PFTrDA	(663.0 / 619.0) 22225 (663.0 / 169.0) 3176	(10.01, 1.01) (N/A, -0.01, -0.2)	130.8 308.7	0.1429 68.4 79.3	0.1468 [0.1000]	146.8%			QC,
PFTeDA	(713.0 / 669.0) 11441 (713.0 / 169.0) 2838	(10.12, 1.00) (-0.01, N/A, -0.6)	79.2 251.0	0.2480 109.3 116.7	0.0854 [0.1000]	85.4%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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	(298.9 / 80.0) 20923 (298.9 / 99.0) 13136	(6.10, 1.00) (0.00, N/A, -0.1)	207.2 143.0	0.6278 92.3 95.8	0.0991 [0.0885]	112.1%			
PFPeS	(349.0 / 80.0) 33808 (349.0 / 99.0) 14162	(7.14, 0.89) (N/A, -0.04, -0.1)	229.9 97.2	0.4189 112.2 93.4	0.0884 [0.0938]	94.2%			
PFHxS	(399.0 / 80.0) 29807 (399.0 / 99.0) 12569	(8.01, 1.00) (0.00, N/A, 0.2)	640.4 839.8	0.4217 123.0 120.1	0.0919 [0.0911]	100.9%			
PFHpS	(449.0 / 80.0) 23519 (449.0 / 99.0) 6047	(8.78, 0.93) (N/A, -0.03, 0.0)	145.4 81.0	0.2571 87.6 95.1	0.0781 [0.0951]	82.1%			
PFOS	(499.0 / 80.0) 36692 (499.0 / 99.0) 5657	(9.45, 1.00) (0.00, N/A, 0.0)	105.6 144775.3	0.1542 67.4 67.9	0.0983 [0.0927]	106.0%			
PFNS	(549.0 / 80.0) 43770 (549.0 / 99.0) 9547	(9.76, 1.03) (N/A, -0.01, -0.2)	158.4 87.4	0.2181 87.4 79.7	0.1020 [0.0960]	106.2%			
PFDS	(599.0 / 80.0) 49005 (599.0 / 99.0) 9575	(9.91, 1.05) (N/A, -0.01, 0.3)	158.2 69.9	0.1954 76.6 90.4	0.0925 [0.0963]	96.1%			
PFDoS	(698.9 / 80.0) 24495 (698.9 / 99.0) 7239	(10.11, 1.07) (N/A, 0.00, 0.1)	127.6 145.9	0.2955 143.8 130.1	0.0886 [0.0970]	91.4%			
4:2FTS	(327.0 / 307.0) 27207 (327.0 / 81.0) 16069	(5.80, 1.00) (0.00, N/A, -0.2)	346.9 153.1	0.5906 118.1 106.3	0.4136 [0.3738]	110.7%			
6:2FTS	(427.0 / 407.0) 19093 (427.0 / 81.0) 11004	(7.55, 1.00) (0.00, N/A, -0.1)	141.0 75.5	0.5763 80.4 87.2	0.4356 [0.3796]	114.7%			
8:2FTS	(527.0 / 507.0) 12402 (527.0 / 81.0) 10197	(8.95, 1.00) (0.00, N/A, -0.4)	103.4 185.0	0.8222 116.9 138.7	0.3193 [0.3833]	83.3%			

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 55945 (498.0 / 478.0) 1236	(10.17, 1.00) (0.00, N/A, 0.6)	211.4 155.0	0.0221 93.4 109.2	0.1205 [0.1000]	120.5%			
NMeFOSA	(511.9 / 219.0) 17907 (511.9 / 169.0) 16020	(10.61, 1.00) (0.00, N/A, 0.3)	320.2 216.0	0.8946 128.3 127.2	0.2829 [0.4000]	70.7%			
NEIFOSA	(526.0 / 219.0) 22724 (526.0 / 169.0) 20436	(10.70, 1.00) (0.00, N/A, -0.2)	399.2 243.9	0.8993 79.8 85.1	0.3266 [0.4000]	81.6%			
NMeFOSAA	(570.0 / 419.0) 4137 (570.0 / 483.0) 1930	(9.48, 1.00) (-0.02, N/A, 0.5)	11315.2 55.2	0.4665 99.3 102.7	0.0775 [0.1000]	77.5%			
NEIFOSAA	(584.0 / 419.0) 5824 (584.0 / 526.0) 4511	(9.69, 1.00) (0.01, N/A, 1.4)	342.7 339657.5	0.7745 100.5 150.7	0.0912 [0.1000]	91.2%			IR2,
NMeFOSE	(616.1 / 59.0) 8851	(10.59, 1.00) (0.01, N/A, 0.0)	82.3	N/A 0.0 0.0	0.3510 [0.4000]	87.7%			
NEtFOSE	(630.0 / 59.0) 3227	(10.68, 1.00) (0.01, N/A, 0.0)	322.5	N/A 0.0 0.0	0.4703 [0.4000]	117.6%			
HFPO-DA	(285.0 / 169.0) 10719 (285.0 / 185.0) 30142	(6.49, 1.00) (0.00, N/A, 0.3)	186.4 202.6	2.8121 110.2 100.6	0.1766 [0.2000]	88.3%			
ADONA	(377.0 / 85.0) 41311 (377.0 / 251.0) 5744	(7.39, 1.14) (N/A, -0.04, -0.5)	322.2 26.0	0.1390 110.9 117.7	0.1642 [0.1885]	87.1%			
9CI-Pf3ONS	(531.0 / 351.0) 124528 (533.0 / 353.0) 32709	(9.71, 1.50) (N/A, -0.01, 0.3)	360.7 107.6	0.2627 82.9 88.7	0.1746 [0.1867]	93.5%			
11CI-PF3OUDS	(631.0 / 451.0) 61084 (633.0 / 453.0) 22438	(10.00, 1.54) (N/A, -0.01, -0.1)	714.7 195.4	0.3673 125.6 114.3	0.1299 [0.1886]	68.9%			QC,



Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 1576 (241.0 / 117.0) 2612	(4.48, 0.90) (N/A, -0.01, -0.1)	106.8 47.9	1.6567 0.1 95.1	0.4211 [0.4000]	105.3%			IR1,
5:3FTCA	(341.0 / 236.7) 10567 (341.0 / 217.0) 16302	(6.78, 1.10) (N/A, -0.02, 0.7)	130.7 63.3	1.5427 97.6 97.3	0.3749 [0.4000]	93.7%			
7:3FTCA	(441.0 / 317.0) 10298 (441.0 / 337.0) 10058	(8.60, 1.40) (N/A, -0.02, 0.6)	32.4 369.8	0.9767 120.1 113.2	0.3238 [0.4000]	80.9%			
PFEESA	(315.0 / 135.0) 25897 (315.0 / 83.0) 7585	(6.59, 1.07) (N/A, -0.03, 0.5)	1418.1 66.2	0.2929 103.6 110.0	0.1822 [0.1785]	102.1%			
PFMPA	(229.0 / 85.0) 4037	(4.20, 0.84) (N/A, 0.00, 0.0)	168.3	N/A 0.0 0.0	0.1714 [0.2000]	85.7%			
PFMBA	(279.0 / 85.0) 14601	(5.38, 1.08) (N/A, -0.02, 0.0)	336.8	N/A 0.0 0.0	0.1899 [0.2000]	94.9%			
NFDHA	(201.0 / 85.0) 413 (295.0 / 201.0) 2977	(6.02, 0.98) (N/A, -0.03, 0.1)	207.7 111.6	7.2169 0.9 106.6	0.0350 [0.2000]	17.5%			QC,IR1,
13C3_PFBA_IIS	(216.0 / 172.0) 90760	(3.72, N/A) (N/A, 0.02, N/A)	746.1	N/A	1.0381 [1.0000]	103.8% {126.4%}			
13C2_PFHxA_IIS	(315.1 / 270.0) 138759	(6.14, N/A) (N/A, -0.03, N/A)	542.8	N/A	1.0546 [1.0000]	105.5% {118.8%}			
13C4_PFOA_IIS	(417.0 / 372.0) 138185	(7.89, N/A) (N/A, -0.04, N/A)	610.7	N/A	1.1040 [1.0000]	110.4% {137.0%}			
13C5_PFNA_IIS	(468.0 / 423.0) 103715	(8.63, N/A) (N/A, -0.02, N/A)	271.5	N/A	1.0390 [1.0000]	103.9% {106.8%}			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: BBL0357-MRL1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (8)  
 Acquired: 2022/12/20 - 11:34

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) (ΔRT-I[min], ΔRT-CV[min], ΔRT ion[s])	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	(515.1 / 470.1) 110981	(9.30, N/A) (N/A, -0.02, N/A)	321.2	N/A	1.0702 [ 1.0000 ]	107.0% { 162.1% }			
18O2_PFHxS_IIS	(403.0 / 83.9) 240683	(8.02, N/A) (N/A, -0.04, N/A)	926.2	N/A	1.0173 [ 1.0000 ]	101.7% { 114.0% }			
13C4_PFOS_IIS	(502.8 / 79.9) 212663	(9.45, N/A) (N/A, -0.02, N/A)	394.9	N/A	1.0600 [ 1.0000 ]	106.0% { 133.7% }			
13C4_PFBA_EIS	(217.0 / 172.0) 722838	(3.71, N/A) (N/A, 0.02, N/A)	811.4	N/A	7.6926 [ 8.0000 ]	96.2% { 127.0% }			
13C5_PFPeA_EIS	(267.9 / 223.0) 385615	(4.99, N/A) (N/A, -0.01, N/A)	641.4	N/A	3.7748 [ 4.0000 ]	94.4% { 118.7% }			
13C5_PFHxA_EIS	(318.0 / 273.0) 305128	(6.14, N/A) (N/A, -0.03, N/A)	745.0	N/A	1.8680 [ 2.0000 ]	93.4% { 127.8% }			
13C4_PFHpA_EIS	(367.0 / 322.0) 277397	(7.07, N/A) (N/A, -0.03, N/A)	654.8	N/A	1.9222 [ 2.0000 ]	96.1% { 125.4% }			
13C8_PFOA_EIS	(421.0 / 376.0) 274396	(7.89, N/A) (N/A, -0.04, N/A)	520.9	N/A	1.7970 [ 2.0000 ]	89.9% { 119.5% }			
13C9_PFNA_EIS	(472.0 / 427.0) 108689	(8.63, N/A) (N/A, -0.03, N/A)	323.2	N/A	0.9594 [ 1.0000 ]	95.9% { 132.4% }			
13C6_PFDA_EIS	(519.0 / 474.0) 151310	(9.30, N/A) (N/A, -0.03, N/A)	316.3	N/A	1.0062 [ 1.0000 ]	100.6% { 140.0% }			
13C7_PFUnA_EIS	(570.0 / 525.0) 221578	(9.71, N/A) (N/A, -0.01, N/A)	388.4	N/A	1.0233 [ 1.0000 ]	102.3% { 146.1% }			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: BBL0357-MRL1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (8)  
 Acquired: 2022/12/20 - 11:34

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-[min], $\Delta$ RT- CV[min], $\Delta$ 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) 229006	(9.89, N/A) (N/A, -0.01, N/A)	381.4	N/A	0.9378 [ 1.0000 ]	93.8% { 125.7% }			
13C2_PFTeDA_EIS	(715.0 / 670.0) 140050	(10.12, N/A) (N/A, -0.01, N/A)	269.5	N/A	0.9436 [ 1.0000 ]	94.4% { 124.3% }			
13C3_PFBs_EIS	(302.0 / 80.0) 772713	(6.09, N/A) (N/A, -0.03, N/A)	584.0	N/A	1.9658 [ 2.0000 ]	98.3% { 116.8% }			
13C3_PFHxS_EIS	(402.0 / 80.0) 407690	(8.01, N/A) (N/A, -0.04, N/A)	791.6	N/A	1.9999 [ 2.0000 ]	100.0% { 118.7% }			
13C8_PFOS_EIS	(507.0 / 80.0) 679325	(9.45, N/A) (N/A, -0.02, N/A)	612.3	N/A	1.9446 [ 2.0000 ]	97.2% { 123.5% }			
13C2_4:2FTS_EIS	(329.0 / 81.0) 82499	(5.81, N/A) (N/A, -0.04, N/A)	592.3	N/A	3.7220 [ 4.0000 ]	93.1% { 97.9% }			
13C2_6:2FTS_EIS	(429.0 / 81.0) 113558	(7.55, N/A) (N/A, -0.04, N/A)	651.8	N/A	3.9978 [ 4.0000 ]	99.9% { 127.7% }			
13C2_8:2FTS_EIS	(529.0 / 81.0) 106008	(8.96, N/A) (N/A, -0.03, N/A)	334.6	N/A	4.1628 [ 4.0000 ]	104.1% { 120.5% }			
13C8_PFOsa_EIS	(506.0 / 78.0) 933134	(10.17, N/A) (N/A, 0.00, N/A)	568.0	N/A	1.8354 [ 2.0000 ]	91.8% { 111.9% }			
D3_NMeFOSA_EIS	(515.0 / 169.0) 158646	(10.60, N/A) (N/A, -0.01, N/A)	717.7	N/A	1.2526 [ 2.0000 ]	62.6% { 77.8% }			
D5_NEtFOSA_EIS	(531.1 / 169.0) 152606	(10.70, N/A) (N/A, -0.01, N/A)	707.9	N/A	1.2903 [ 2.0000 ]	64.5% { 82.6% }			



Chemist: ABK  
 Instrument: Saphira  
 Type: Sciex Q3 5500

Sample I.D.: BBL0357-MRL1  
 DF, IV: 1, 10.0µL  
 Acquisition Method: 1633 2022-12-13.dam

Quant Method: 1633 - S2022-12-15A  
 Path: S2022-12-20A (8)  
 Acquired: 2022/12/20 - 11:34

Analyte	(Q1 / Q3) Area Counts*min	R.T. (R.T [min], R.R.T.) ( $\Delta$ RT-I[ $\mu$ min], $\Delta$ RT-CV[ $\mu$ min], $\Delta$ 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) 294510	(9.50, N/A) (N/A, -0.01, N/A)	336.6	N/A	3.5940 [ 4.0000 ]	89.8% { 125.0% }			
D5_EtFOSAA_EIS	(589.0 / 419.0) 283521	(9.68, N/A) (N/A, -0.01, N/A)	274.7	N/A	4.1630 [ 4.0000 ]	104.1% { 126.7% }			
D7_NMeFOSE_EIS	(623.2 / 58.9) 396106	(10.57, N/A) (N/A, -0.01, N/A)	1046.1	N/A	16.2582 [ 20.0000 ]	81.3% { 115.7% }			
D9_NEtFOSE_EIS	(639.2 / 58.9) 214939	(10.67, N/A) (N/A, -0.01, N/A)	1134.7	N/A	16.3830 [ 20.0000 ]	81.9% { 108.3% }			
13C3_HFPODA_EIS	(287.0 / 169.0) 794471	(6.49, N/A) (N/A, -0.03, N/A)	886.1	N/A	7.9883 [ 8.0000 ]	99.9% { 121.5% }			



# PREPARATION BENCH SHEET

## Organics

Print Date/Time: 12/14/2022 5:44 pm

BBL0295

**Matrix: Water**

**Prepared using: PFAS - 1633**

Lab Number	Sample and Source ID	Date Due	Extract by	Prepared	Initial (g)	Final (ml)	ul Spike	ul Surrogate	Extraction Comments
22L0083-02	AF-RHMW03-WGN01LF-2212W2	12/15/2022	01/09/2023	12/14/2022 8:54:00AM	573.21	2		200	"Report relevant surrogates"
22L0083-03	AF-RHMW02-WGN01LF-2212W2	12/15/2022	01/09/2023	12/14/2022 8:54:00AM	586.27	2		200	"Report relevant surrogates"
BBL0295-BLK1	Blank			12/14/2022 8:54:00AM	500	2	0	200	
BBL0295-BS1	LCS			12/14/2022 8:54:00AM	500	2	200	200	
BBL0295-MRL1	MRL Check			12/14/2022 8:54:00AM	500	2	20	200	

**Spiking Solution(s)**  
 22L0269 PFAS - MIX 1633 10ng/mL

**Surrogate Solution(s)**  
 22L0117 MPFAC-HIF-ES 20.0ng/mL

Start Date/Time \_\_\_\_\_  
 StopDate/Time \_\_\_\_\_

Reagents			
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;"><u>Standard</u></td> <td style="width: 33%;"><u>Description</u></td> <td style="width: 33%;"><u>LotNum</u></td> </tr> </table>	<u>Standard</u>	<u>Description</u>	<u>LotNum</u>
<u>Standard</u>	<u>Description</u>	<u>LotNum</u>	

Batch Comments:  
 Spiked by:  
 Balance #: WB2  
 Concentration:  
 Cartridge:

Spiking Witnessed By \_\_\_\_\_ Date \_\_\_\_\_ Preparation Reviewed By \_\_\_\_\_ Date \_\_\_\_\_ Extracts Received By \_\_\_\_\_ Date \_\_\_\_\_

# PREPARATION BENCH SHEET

## Organics

Print Date/Time: 12/14/2022 8:55 am

BBL0295

**Matrix: Water**

**Prepared using: PFAS - 1633**

<b>Analyses</b> 1633	<b>Spiking Solution(s)</b>	<b>Surrogate Solution(s)</b> 22L0117 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
22L0083-01	AF-HDMW225303-WGN01B-2212 W2	12/15/2022	01/09/2023	12/14/2022 8:54:00AM	500	2		200	"Report relevant surrogates"
22L0083-02	AF-RHMW03-WGN01LF-2212W2	12/15/2022	01/09/2023	12/14/2022 8:54:00AM	500	2		200	"Report relevant surrogates"
22L0083-03	AF-RHMW02-WGN01LF-2212W2	12/15/2022	01/09/2023	12/14/2022 8:54:00AM	500	2		200	"Report relevant surrogates"
BBL0295-BLK1	Blank			12/14/2022 8:54:00AM	500	2		200	
BBL0295-BS1	LCS			12/14/2022 8:54:00AM	500	2		200	
BBL0295-MRL1	MRL Check			12/14/2022 8:54:00AM	500	2		200	

Reagents	Standard	Description	LotNum

Start Date/Time \_\_\_\_\_  
 Top Date/Time \_\_\_\_\_

Spiking Witnessed By \_\_\_\_\_ Date \_\_\_\_\_  
 Preparation Reviewed By \_\_\_\_\_ Date \_\_\_\_\_  
 Extracts Received By \_\_\_\_\_ Date \_\_\_\_\_





# PREPARATION BENCH SHEET

## Organics

Print Date/Time: 12/14/2022 5:42 pm

BBL0300

**Matrix: Water**

**Prepared using: PFAS - 1633**

Analyses	Spiking Solution(s)	Surrogate Solution(s)							
1633	22L0269 PFAS - MIX 1633 10ng/mL	22L0117 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
22L0083-01	AF-HDMW225303-WGN01B-2212 W2	12/15/2022	01/09/2023	12/14/2022 11:09:00AM	49.07	2		200	50mL Subsampled
BBL0300-BLK1	Blank			12/14/2022 11:09:00AM	50	2	0	200	
BBL0300-BSI	LCS			12/14/2022 11:09:00AM	50	2	200	200	
BBL0300-MRL1	MRL Check			12/14/2022 11:09:00AM	50	2	20	200	

Start Date/Time \_\_\_\_\_  
 Stop Date/Time \_\_\_\_\_

Reagents	Standard	Description	LotNum

Batch Comments:  
 Spiked by: DAG 12/14/22 10:00AM  
 Balance #: WB2  
 Concentration:  
 Cartridge: Biotage

Spiking Witnessed By \_\_\_\_\_ Date \_\_\_\_\_  
 Preparation Reviewed By \_\_\_\_\_ Date \_\_\_\_\_  
 Extracts Received By \_\_\_\_\_ Date \_\_\_\_\_

# PREPARATION BENCH SHEET

## Organics

Print Date/Time: 12/14/2022 11:20 am

BBL0300

**Matrix: Water**

**Prepared using: PFAS - 1633**

Analyses	Spiking Solution(s)				Surrogate Solution(s)				
Lab Number	Sample and Source ID	Date Due	Extract by	Prepared	Initial (g)	Final (ml)	ul Spike	ul Surrogate	Extraction Comments
22L0083-01	AF-HDMW225303-WGN01B-2212 W2	12/15/2022	01/09/2023	12/14/2022 11:09:00AM	500	2		200	"Report relevant surrogates"
BBL0300-BLK1	Blank			12/14/2022 11:09:00AM	500	2		200	
BBL0300-BSI	LCS			12/14/2022 11:09:00AM	500	2		200	
BBL0300-MRL1	MRL Check			12/14/2022 11:09:00AM	500	2		200	

Start Date/Time \_\_\_\_\_  
 Stop Date/Time \_\_\_\_\_

Reagents	Standard	Description	LotNum

Spiking Witnessed By \_\_\_\_\_ Date \_\_\_\_\_  
 Preparation Reviewed By \_\_\_\_\_ Date \_\_\_\_\_  
 Extracts Received By \_\_\_\_\_ Date \_\_\_\_\_

# PREPARATION BATCH SUMMARY

## EPA 1633

Laboratory:	APPL, LLC	Work Order:	22L0083
Client:	AECOM	Project:	Red Hill AFFF Assessment Sampling
Batch:	BBL0355	Batch Matrix:	Water
		Preparation:	1633

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT g	FINAL VOL. ml
AF-RHMW03-WGN01LF-2212W2	22L0083-02RE2	12/19/22 08:59	553.54	2.00
AF-RHMW02-WGN01LF-2212W2	22L0083-03RE2	12/19/22 08:59	544.64	2.00
Blank	BBL0355-BLK1	12/19/22 08:59	500.00	2.00
LCS	BBL0355-BS1	12/19/22 08:59	500.00	2.00
MRL Check	BBL0355-MRL1	12/19/22 08:59	500.00	2.00

# PREPARATION BENCH SHEET

## Organics

BBL0355

Print Date/Time: 12/20/2022 1:58 pm

Matrix: Water

Prepared using: PFAS - 1633

Lab Number	Sample and Source ID	Date Due	Extract by	Prepared	Initial (g)	Final (ml)	ul Spike	ul Surrogate	Extraction Comments
22L0083-02RE2	AF-RHMW03-WGN01LF-2212W2	12/15/2022	01/09/2023	12/19/2022 8:59:00AM	553.54	2		200	Re-extract added 12/16/2022 by ABK
22L0083-02RE3	AF-RHMW03-WGN01LF-2212W2	12/15/2022	01/09/2023	12/19/2022 8:59:00AM	553.54	2		200	Re-extract added 12/16/2022 by ABK
22L0083-03RE2	AF-RHMW02-WGN01LF-2212W2	12/15/2022	01/09/2023	12/19/2022 8:59:00AM	544.64	2		200	Re-extract added 12/16/2022 by ABK
22L0083-03RE3	AF-RHMW02-WGN01LF-2212W2	12/15/2022	01/09/2023	12/19/2022 8:59:00AM	544.64	2		200	Re-extract added 12/16/2022 by ABK
22L0127-01	AF-RHMW04-WGN01B-2212W2	12/21/2022	01/12/2023	12/19/2022 8:59:00AM	554.59	2		200	"Report relevant surrogates"
22L0127-01RE1	AF-RHMW04-WGN01B-2212W2	12/21/2022	01/12/2023	12/19/2022 8:59:00AM	554.59	2		200	"Report relevant surrogates"
22L0127-02	AF-RHMW10-WGN01B-2212W2	12/21/2022	01/12/2023	12/19/2022 8:59:00AM	541.54	2		200	"Report relevant surrogates"
22L0127-02RE1	AF-RHMW10-WGN01B-2212W2	12/21/2022	01/12/2023	12/19/2022 8:59:00AM	541.54	2		200	"Report relevant surrogates"
BBL0355-BLK1	Blank			12/19/2022 8:59:00AM	500	2	0	200	
BBL0355-BS1	LCS			12/19/2022 8:59:00AM	500	2	200	200	
BBL0355-MRL1	MRL Check			12/19/2022 8:59:00AM	500	2	20	200	

Spiking Solution(s)
22L0269 PFAS - MIX 1633 10ng/mL

Surrogate Solution(s)
22L0272 MPFAC-HIF-ES 20.0ng/mL

Start Date/Time

Stop Date/Time

Batch Comments:

Standard	Description	LotNum
22C0296	Envi-carb	122395
22K0511	Reagent -0.3M Formic Acid	M13H051
22L0094	Reagent - 0.05MFA wash	x
22L0175	Reagent - 1.0% Ammonia Hydroxide	219481
22L0224	Am. Ac. preservative	P28T056

Spiking Witnessed By

Date

Preparation Reviewed By

Date

Extracts Received By

Date

# PREPARATION BENCH SHEET

## Organics

Print Date/Time: 12/20/2022 1:58 pm

BBL0355  
(Continued)

**Matrix: Water**

**Prepared using: PFAS - 1633**

**Analyses**  
1633

**Spiking Solution(s)**  
22L0269 PFAS - MIX 1633 10ng/mL

**Surrogate Solution(s)**  
22L0272 MPFAC-HIF-ES 20.0ng/mL

Spiked by: DAG 12/19/22 9:50 AM

Balance #: WB2

Cartridge: Biotage

Concentration: 12/19/22 4:10-5:50,12/20/22 725-10

Spiking Witnessed By

Date

Preparation Reviewed By

Date

Extracts Received By

Date



# PREPARATION BENCH SHEET

## Organics

Print Date/Time: 12/20/2022 6:34 pm

BBL0357

**Matrix: Water**

**Prepared using: PFAS - 1633**

Lab Number	Sample and Source ID	Date Due	Extract by	Prepared	Initial (g)	Final (ml)	ul Spike	ul Surrogate	Extraction Comments
22L0083-01RE2	AF-HDMW225303-WGN01B-2212 W2	12/15/2022	01/09/2023	12/19/2022 9:03:00AM	48.36	2		200	Subsampled 50 mL from 500 mL. Re-extract added 12/16/2022 by ABK
22L0083-01RE3	AF-HDMW225303-WGN01B-2212 W2	12/15/2022	01/09/2023	12/19/2022 9:03:00AM	48.36	2		200	Subsampled 50 mL from 500 mL. Re-extract added 12/16/2022 by ABK
BBL0357-BLK1	Blank			12/19/2022 9:03:00AM	500	2	0	200	
BBL0357-BS1	LCS			12/19/2022 9:03:00AM	500	2	200	200	
BBL0357-MRL1	MRL Check			12/19/2022 9:03:00AM	500	2	20	200	

Spiking Solution(s)	Surrogate Solution(s)
22L0269 PFAS - MIX 1633 10ng/mL	22L0272 MPFAC-HIF-ES 20.0ng/mL

Start Date/Time \_\_\_\_\_  
 Stop Date/Time \_\_\_\_\_

Batch Comments:  
 Spiked by: DAG 12/19/22 9:50 AM  
 Balance #: WB2  
 Cartridge: Biotage  
 Concentration: 12/19/22 4:10-5:50, 12/20/22 7:25-10

Reagents	Standard	Description	LotNum
	22C0296	Envi-carb	122395
	22K0511	Reagent -0.3M Formic Acid	M13H051
	22L0094	Reagent - 0.05MFA wash	x
	22L0175	Reagent - 1.0% Ammonia Hydroxide	219481
	22L0224	Am. Ac. preservative	P281056

Spiking Witnessed By \_\_\_\_\_ Date \_\_\_\_\_  
 Preparation Reviewed By \_\_\_\_\_ Date \_\_\_\_\_  
 Extracts Received By \_\_\_\_\_ Date \_\_\_\_\_

# INJECTION LOG - ANALYSIS SEQUENCE SUMMARY

EPA 1633

Laboratory: APPL, LLC  
 Client: AECOM  
 Sequence: SB03823  
 Calibration: 2251013

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

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	SB03823-CAL1	S2022-12-13A (1)	12/13/22 20:03
Cal Standard	SB03823-CAL2	S2022-12-13A (2)	12/13/22 20:16
Cal Standard	SB03823-CAL3	S2022-12-13A (3)	12/13/22 20:29
Cal Standard	SB03823-CAL4	S2022-12-13A (4)	12/13/22 20:41
Cal Standard	SB03823-CAL5	S2022-12-13A (5)	12/13/22 20:54
Cal Standard	SB03823-CAL6	S2022-12-13A (6)	12/13/22 21:07
Cal Standard	SB03823-CAL7	S2022-12-13A (7)	12/13/22 21:19
Cal Standard	SB03823-CAL8	S2022-12-13A (8)	12/13/22 21:32
Initial Cal Blank	SB03823-ICB1	S2022-12-13A (9)	12/13/22 21:45
Secondary Cal Check	SB03823-SCV1	S2022-12-13A (10)	12/13/22 21:58



# INJECTION LOG - ANALYSIS SEQUENCE SUMMARY

EPA 1633

Laboratory: APPL, LLC  
 Client: AECOM  
 Sequence: SB03835  
 Calibration: 2251013

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

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Blank	SB03835-CCB1	S2022-12-14A (1)	12/14/22 10:56
Low Cal Check	SB03835-LCV1	S2022-12-14A (2)	12/14/22 11:08
Calibration Check	SB03835-CCV1	S2022-12-14A (3)	12/14/22 11:21
Calibration Blank	SB03835-CCB2	S2022-12-14A (4)	12/14/22 11:59
Calibration Check	SB03835-CCV2	S2022-12-14A (24)	12/14/22 16:13
Calibration Blank	SB03835-CCB3	S2022-12-14A (25)	12/14/22 16:26
Calibration Check	SB03835-CCV3	S2022-12-14A (38)	12/14/22 19:11
Calibration Blank	SB03835-CCB4	S2022-12-14A (39)	12/14/22 19:24
Blank	BBL0295-BLK1	S2022-12-14A (41)	12/14/22 19:49
LCS	BBL0295-BS1	S2022-12-14A (42)	12/14/22 20:02
MRL Check	BBL0295-MRL1	S2022-12-14A (43)	12/14/22 20:15
AF-RHMW03-WGN01LF-2212W2	22L0083-02	S2022-12-14A (44)	12/14/22 20:27
AF-RHMW03-WGN01LF-2212W2	22L0083-02RE1	S2022-12-14A (45)	12/14/22 20:40
AF-RHMW02-WGN01LF-2212W2	22L0083-03	S2022-12-14A (46)	12/14/22 20:53
AF-RHMW02-WGN01LF-2212W2	22L0083-03RE1	S2022-12-14A (47)	12/14/22 21:06
Blank	BBL0300-BLK1	S2022-12-14A (48)	12/14/22 21:18
LCS	BBL0300-BS1	S2022-12-14A (49)	12/14/22 21:31
MRL Check	BBL0300-MRL1	S2022-12-14A (50)	12/14/22 21:44
AF-HDMW225303-WGN01B-2212W2	22L0083-01	S2022-12-14A (51)	12/14/22 21:56
Calibration Check	SB03835-CCV4	S2022-12-14A (53)	12/14/22 22:22
Calibration Blank	SB03835-CCB5	S2022-12-14A (54)	12/14/22 22:34

# INJECTION LOG - ANALYSIS SEQUENCE SUMMARY

EPA 1633

Laboratory: APPL, LLC  
 Client: AECOM  
 Sequence: SB03856  
 Calibration: 2251019

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

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	SB03856-CAL1	S2022-12-15A (1)	12/15/22 12:33
Cal Standard	SB03856-CAL2	S2022-12-15A (2)	12/15/22 12:46
Cal Standard	SB03856-CAL3	S2022-12-15A (3)	12/15/22 12:59
Cal Standard	SB03856-CAL4	S2022-12-15A (4)	12/15/22 13:11
Cal Standard	SB03856-CAL5	S2022-12-15A (5)	12/15/22 13:24
Cal Standard	SB03856-CAL6	S2022-12-15A (6)	12/15/22 13:37
Cal Standard	SB03856-CAL7	S2022-12-15A (7)	12/15/22 13:50
Cal Standard	SB03856-CAL8	S2022-12-15A (8)	12/15/22 14:02
Initial Cal Blank	SB03856-ICB1	S2022-12-15A (9)	12/15/22 14:15
Secondary Cal Check	SB03856-SCV1	S2022-12-15A (10)	12/15/22 14:28

# INJECTION LOG - ANALYSIS SEQUENCE SUMMARY

EPA 1633

Laboratory: APPL, LLC  
 Client: AECOM  
 Sequence: SB03903  
 Calibration: 2251019

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

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Blank	SB03903-CCB1	S2022-12-20A (1)	12/20/22 09:40
Low Cal Check	SB03903-LCV1	S2022-12-20A (2)	12/20/22 09:52
Calibration Check	SB03903-CCV1	S2022-12-20A (3)	12/20/22 10:05
Calibration Blank	SB03903-CCB2	S2022-12-20A (4)	12/20/22 10:43
Calibration Blank	SB03903-CCB3	S2022-12-20A (5)	12/20/22 10:56
Blank	BBL0357-BLK1	S2022-12-20A (6)	12/20/22 11:09
LCS	BBL0357-BS1	S2022-12-20A (7)	12/20/22 11:21
MRL Check	BBL0357-MRL1	S2022-12-20A (8)	12/20/22 11:34
AF-HDMW225303-WGN01B-2212W2	22L0083-01RE2	S2022-12-20A (9)	12/20/22 11:47
Blank	BBL0355-BLK1	S2022-12-20A (11)	12/20/22 12:12
LCS	BBL0355-BS1	S2022-12-20A (12)	12/20/22 12:25
AF-RHMW03-WGN01LF-2212W2	22L0083-02RE2	S2022-12-20A (18)	12/20/22 13:41
AF-RHMW02-WGN01LF-2212W2	22L0083-03RE2	S2022-12-20A (20)	12/20/22 14:07
Calibration Check	SB03903-CCV2	S2022-12-20A (22)	12/20/22 14:32
Calibration Blank	SB03903-CCB4	S2022-12-20A (23)	12/20/22 14:45
MRL Check	BBL0355-MRL1	S2022-12-20A (37)	12/20/22 19:04
Calibration Check	SB03903-CCV3	S2022-12-20A (38)	12/20/22 19:17
Calibration Blank	SB03903-CCB5	S2022-12-20A (39)	12/20/22 19:30

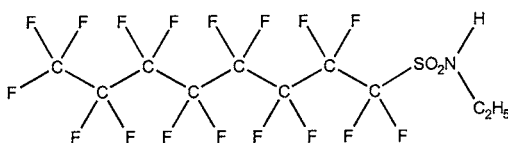


# WELLINGTON LABORATORIES

## CERTIFICATE OF ANALYSIS DOCUMENTATION

**PRODUCT CODE:** N-EtFOSA-M **LOT NUMBER:** NEtFOSA0821M  
**COMPOUND:** N-ethylperfluoro-1-octanesulfonamide

**STRUCTURE:** **CAS #:** 4151-50-2



**MOLECULAR FORMULA:**  $C_{10}H_6F_{17}NO_2S$  **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

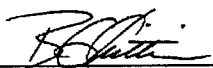
### DOCUMENTATION/ DATA ATTACHED:

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:**

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.

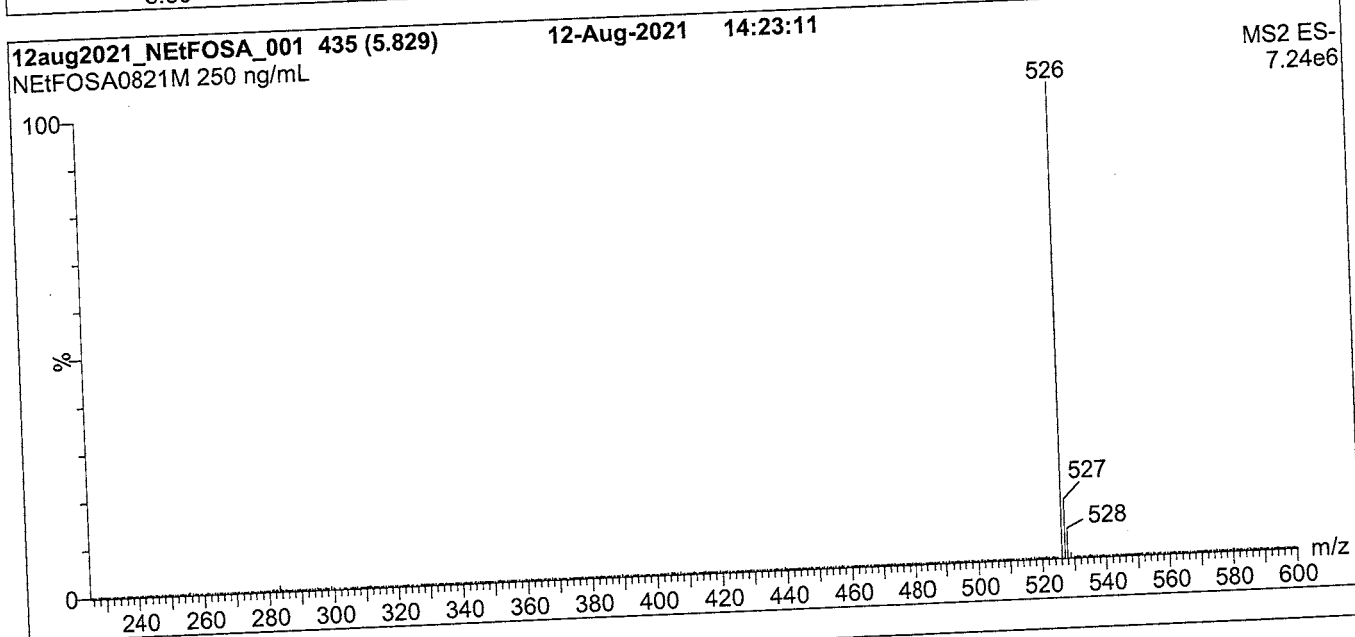
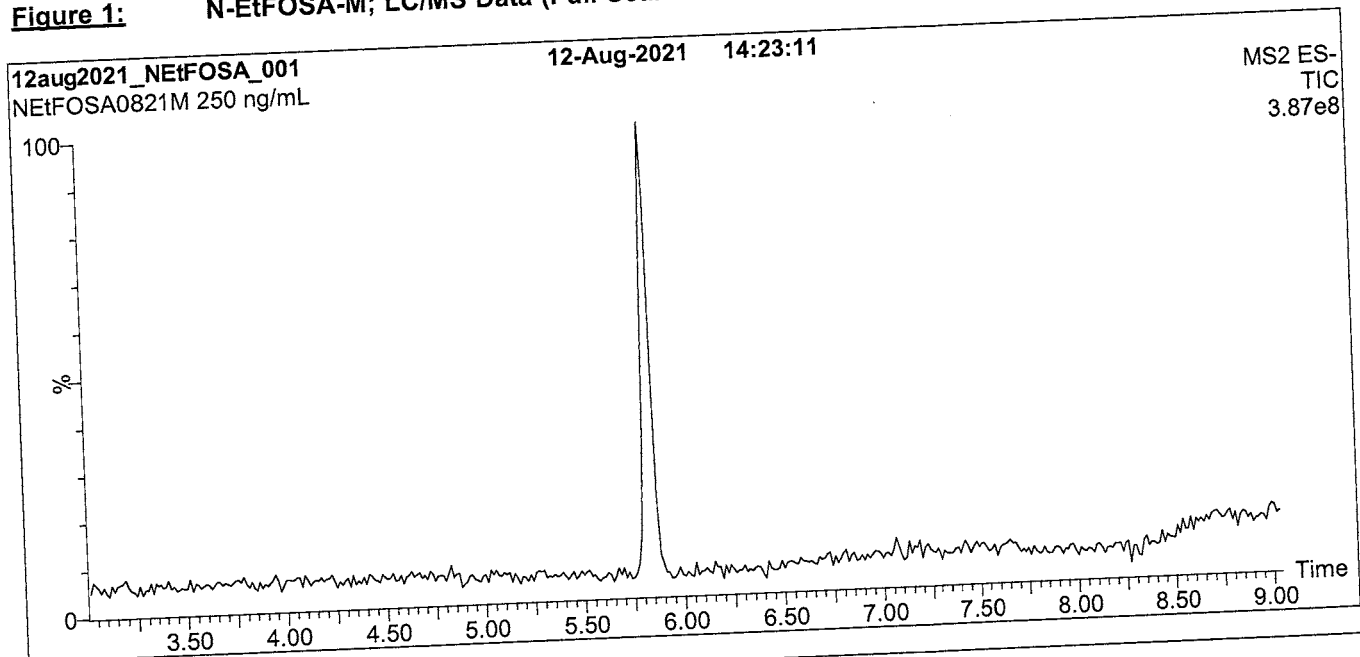
**QUALITY MANAGEMENT:**

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](http://www.well-labs.com) or contact us directly at [info@well-labs.com](mailto: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 RP<sub>18</sub>  
1.7  $\mu$ m, 2.1 x 100 mm

Mobile phase: Gradient  
Start: 30% H<sub>2</sub>O / 70% (80:20 MeOH:ACN)  
(both with 10 mM NH<sub>4</sub>OAc 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  $\mu$ L/min

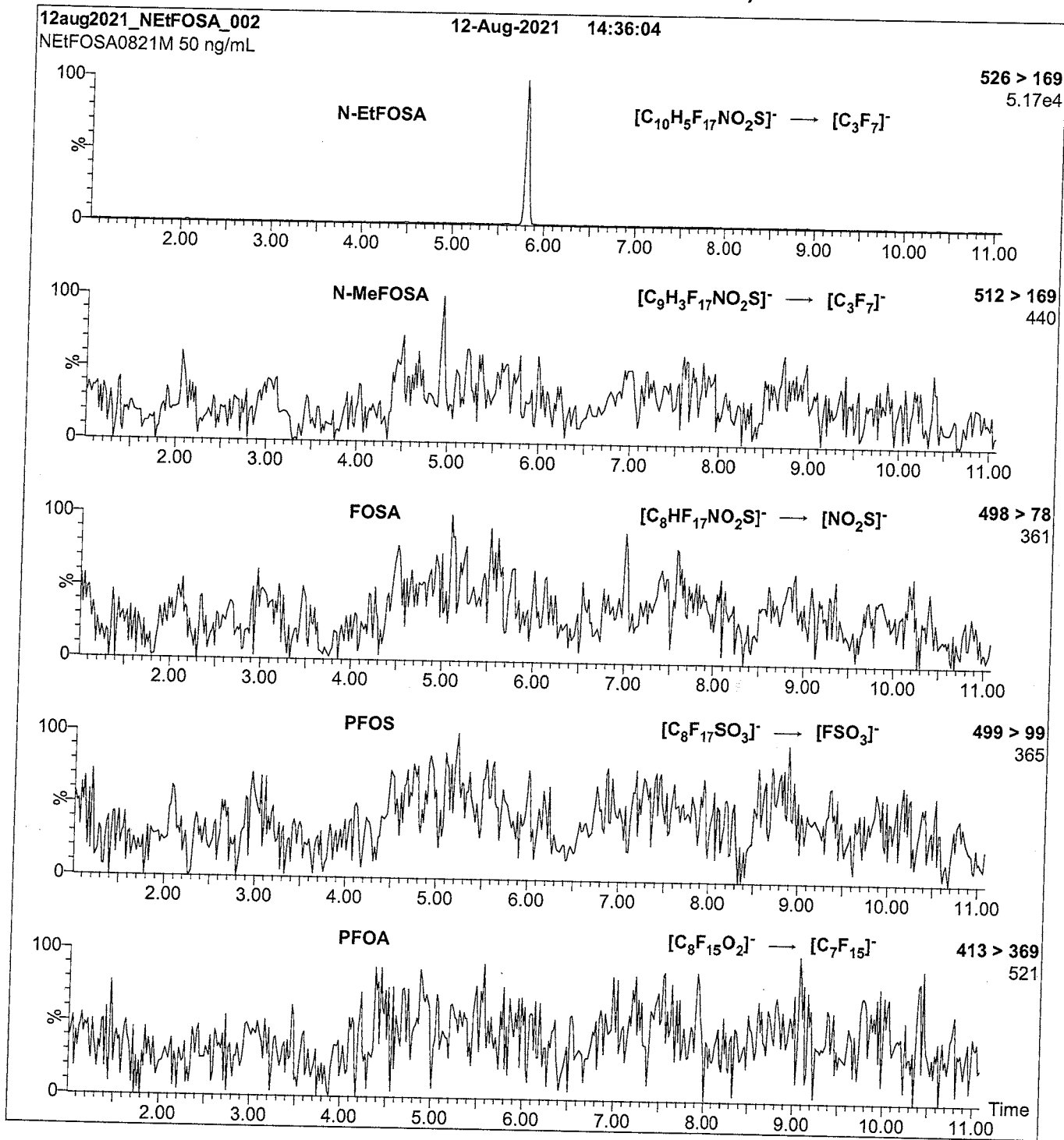
**MS Parameters:**

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)  
Capillary Voltage (kV) = 1.00  
Cone Voltage (V) = 44.00  
Desolvation Temperature ( $^{\circ}$ C) = 500  
Desolvation Gas Flow (L/hr) = 1000

NEtFOSA0821M (3 of 4)  
rev0

**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  $\mu$ 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 OSA0821M)
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



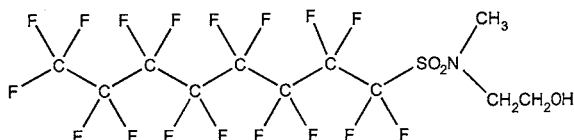


# WELLINGTON LABORATORIES

## 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<sub>11</sub>H<sub>8</sub>F<sub>17</sub>NO<sub>3</sub>S **MOLECULAR WEIGHT:** 557.22  
**CONCENTRATION:** 50.0 ± 2.5 µg/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:**

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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:**

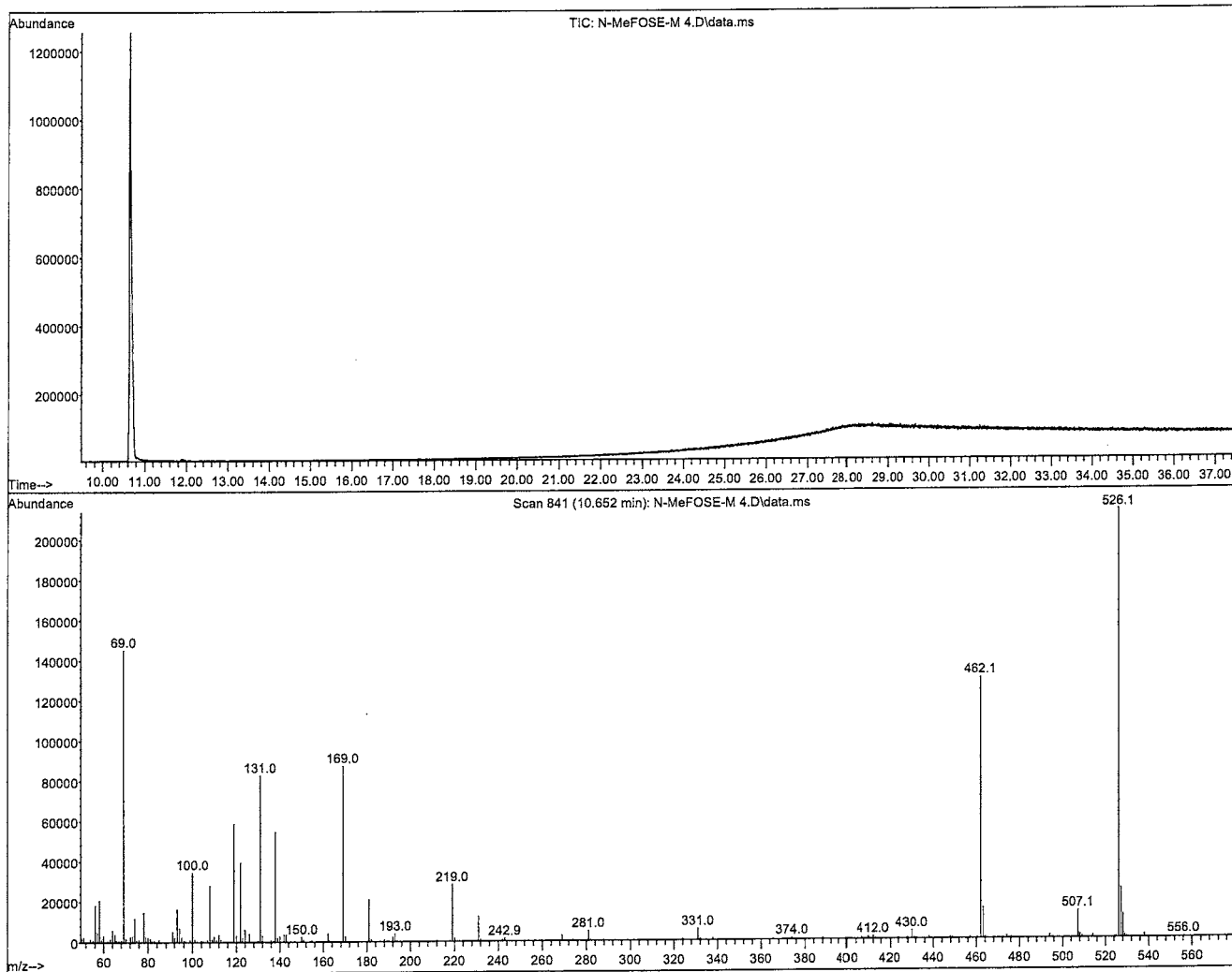
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**QUALITY MANAGEMENT:**

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**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  $\mu$ m film thickness) Agilent J&W

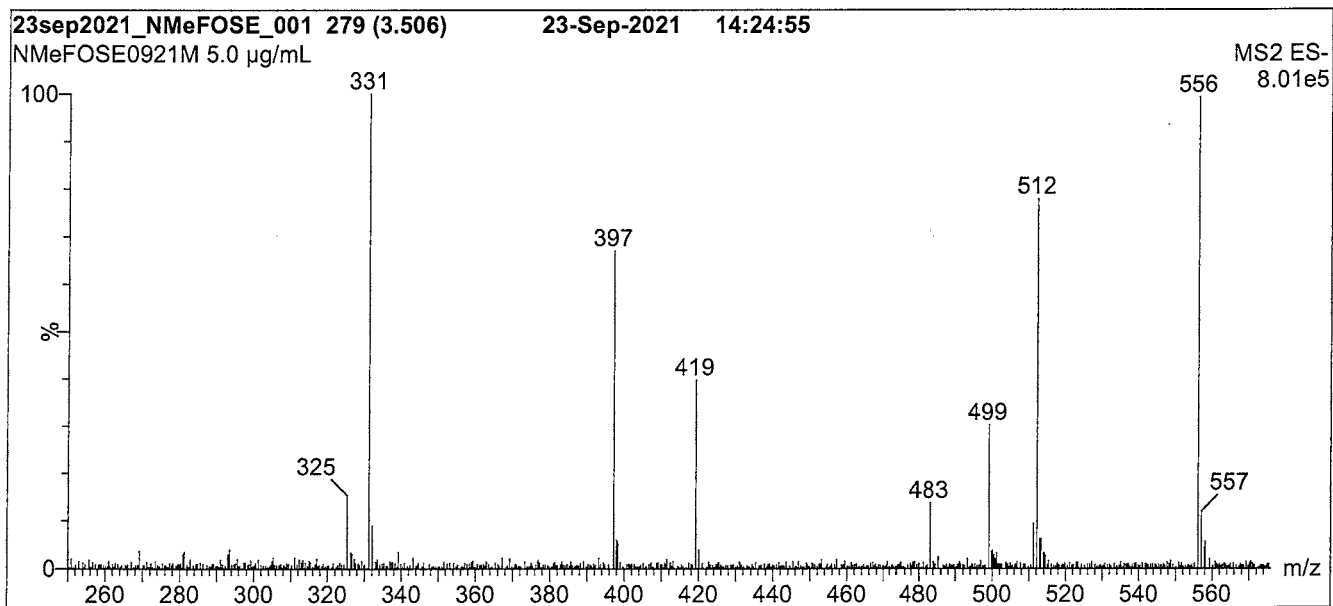
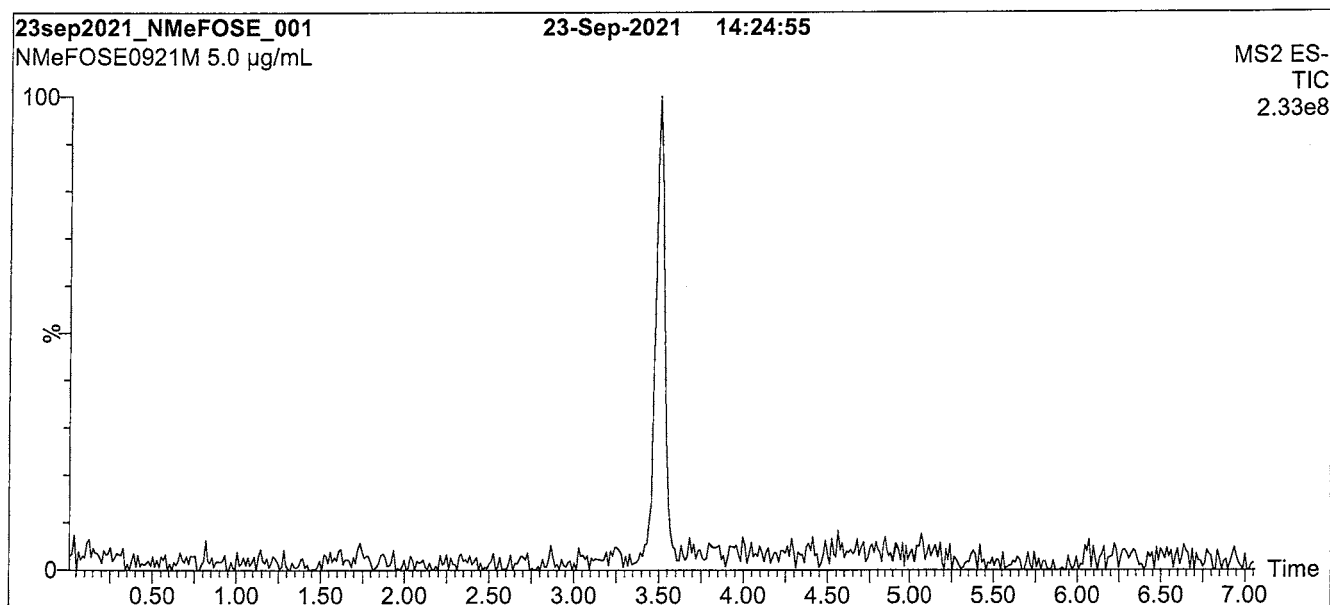
Flow: Constant at 1 mL/min

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 RP<sub>18</sub>  
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient

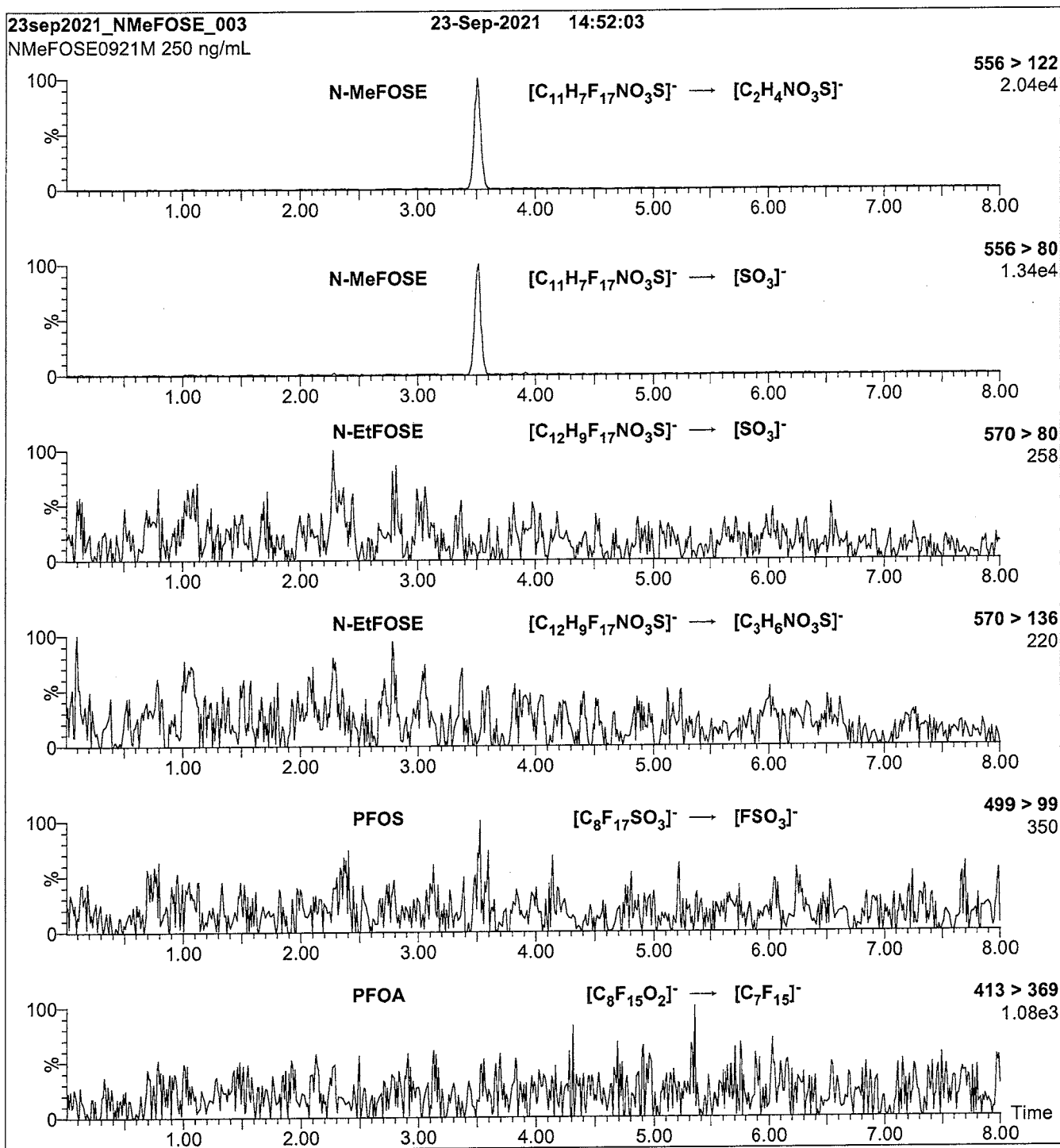
Start: 30% H<sub>2</sub>O / 70% MeOH  
Ramp to 90% organic over 8 min and hold for  
1.5 min before returning to initial conditions in 1 min.  
Time: 12 min

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  $\mu$ L/min**MS Parameters:**Collision Gas (mbar) = 3.14e-3  
Collision Energy (eV) = 36

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# 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

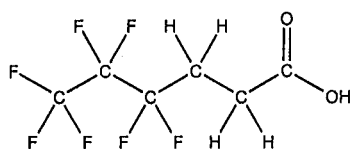




# WELLINGTON LABORATORIES

## CERTIFICATE OF ANALYSIS DOCUMENTATION

**PRODUCT CODE:** FPrPA **LOT NUMBER:** FPrPA1020  
**COMPOUND:** 3-Perfluoropropyl propanoic acid  
**STRUCTURE:** **CAS #:** 356-02-5



**MOLECULAR FORMULA:**  $C_8H_5F_7O_2$  **MOLECULAR WEIGHT:** 242.09  
**CONCENTRATION:**  $50.0 \pm 2.5 \mu\text{g/mL}$  **SOLVENT(S):** Methanol  
**CHEMICAL PURITY:** >98%  
**LAST TESTED:** (mm/dd/yyyy) 11/12/2020  
**EXPIRY DATE:** (mm/dd/yyyy) 11/12/2025  
**RECOMMENDED STORAGE:** Refrigerate ampoule

### 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  $^{19}\text{F}$  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.

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**LIMITED WARRANTY:**

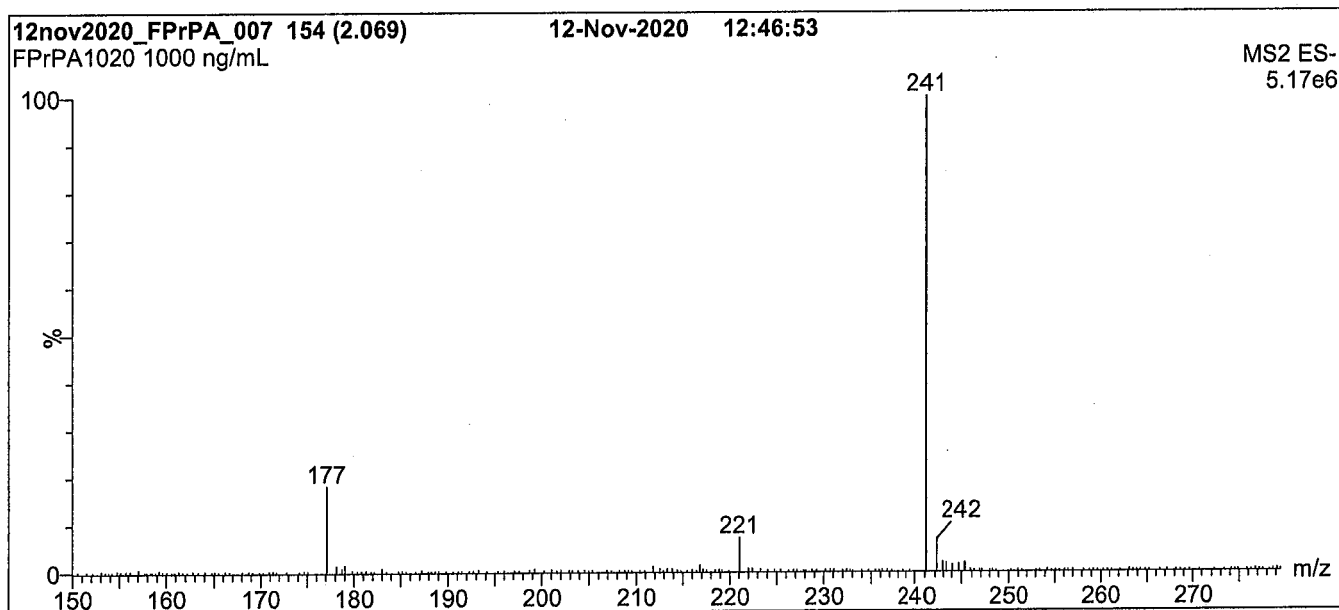
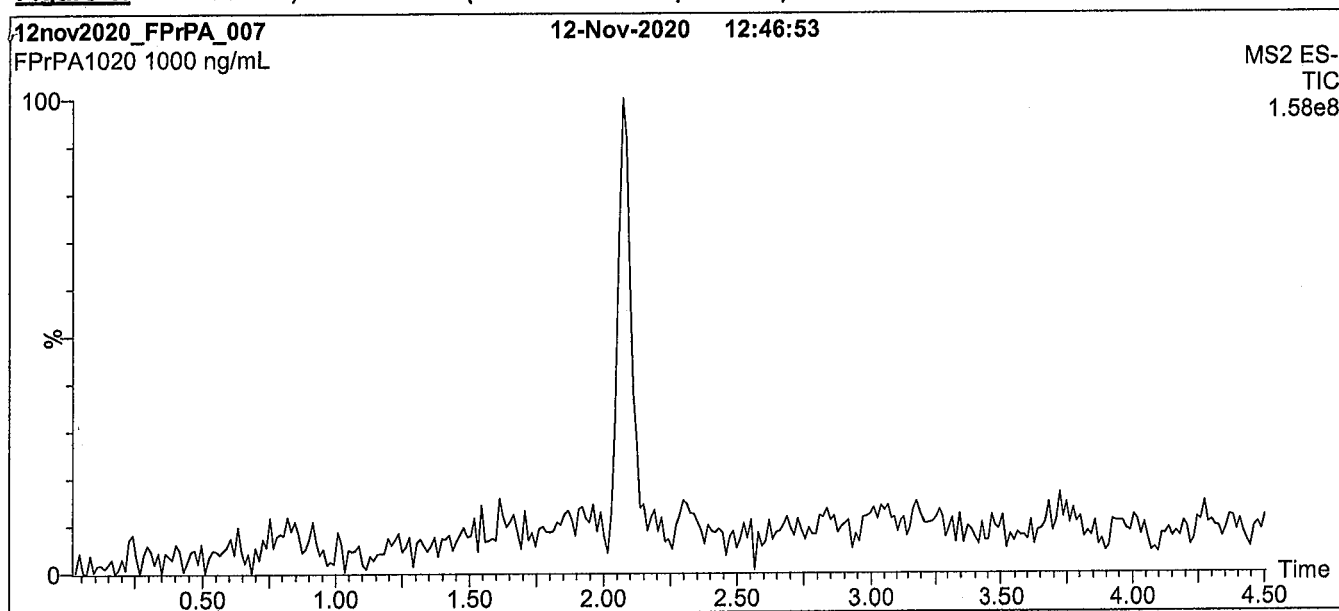
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**Figure 1: FPrPA; LC/MS Data (TIC and Mass Spectrum)****Conditions for Figure 1:**

Waters Acquity Ultra Performance LC  
Waters Xevo TQ-S micro MS

**Chromatographic Conditions:**

Column: Acquity UPLC BEH Shield RP<sub>18</sub>  
1.7  $\mu$ m, 2.1 x 100 mm

Mobile phase: Gradient

Start: 60% H<sub>2</sub>O / 40% (80:20 MeOH:ACN)  
(both with 10 mM NH<sub>4</sub>OAc 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  $\mu$ L/min

**MS Parameters:**

Experiment: Full Scan (150 - 850 amu)

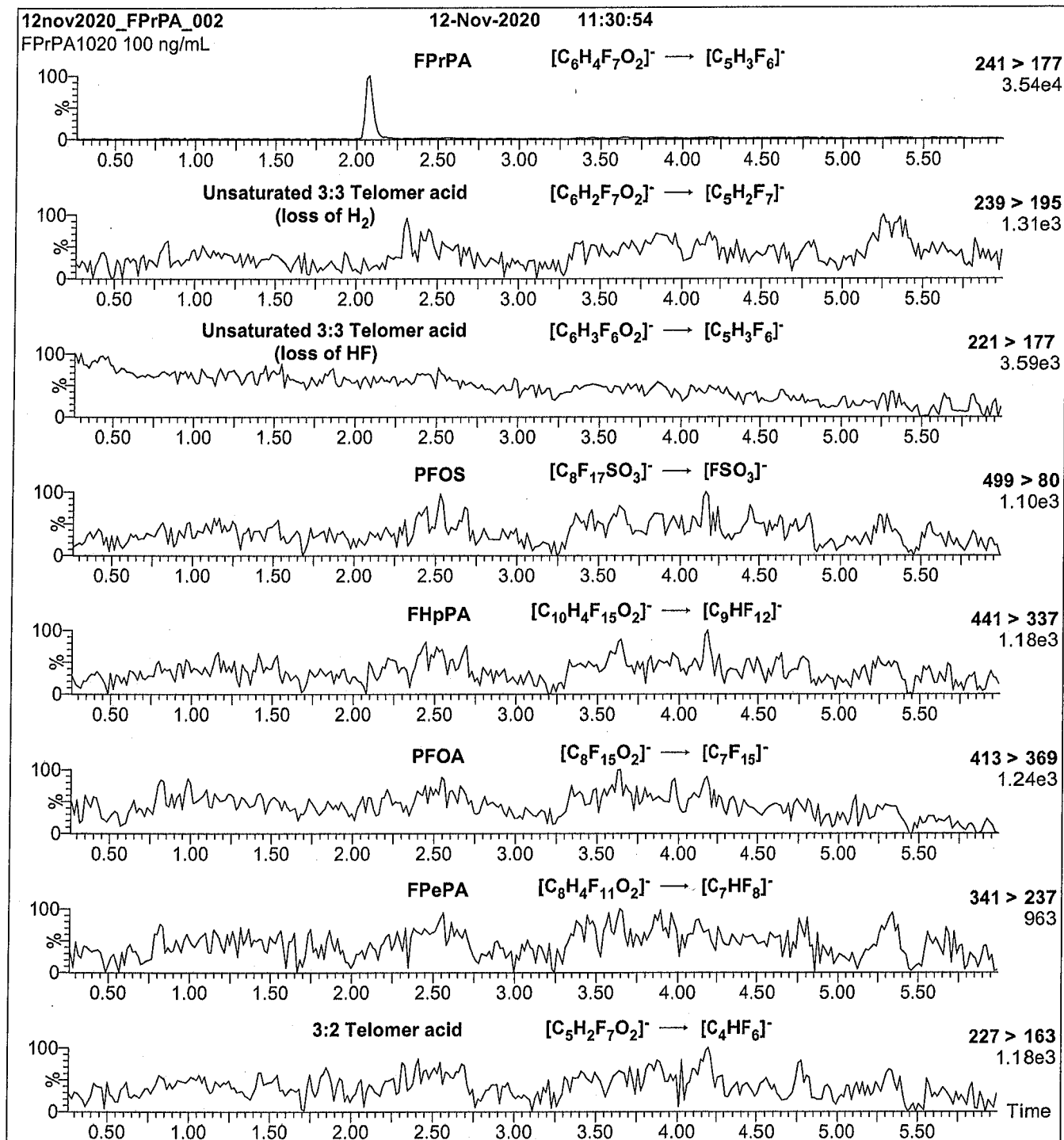
Source: Electrospray (negative)

Capillary Voltage (kV) = 0.50

Cone Voltage (V) = 18.50

Desolvation Temperature ( $^{\circ}$ 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  $\mu$ 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	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 16:03 by HGH
Comments:	3:3 FTCA 50.0ug/mL		

<b>Analyte</b>	<b>Parent</b>	<b>CAS Number</b>	<b>Concentration</b>	<b>Units</b>
3:3 FTA		113507-82-7	50	ug/mL

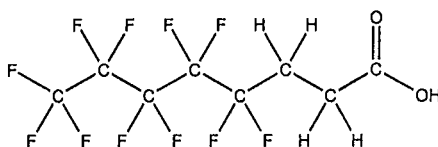


# WELLINGTON LABORATORIES

## CERTIFICATE OF ANALYSIS DOCUMENTATION

**PRODUCT CODE:** FPePA **LOT NUMBER:** FPePA1120  
**COMPOUND:** 3-Perfluoropentyl propanoic acid

**STRUCTURE:** **CAS #:** 914637-49-3



**MOLECULAR FORMULA:**  $C_8H_5F_{11}O_2$  **MOLECULAR WEIGHT:** 342.11  
**CONCENTRATION:**  $50.0 \pm 2.5 \mu\text{g/mL}$  **SOLVENT(S):** Methanol  
**CHEMICAL PURITY:** >98%  
**LAST TESTED:** (mm/dd/yyyy) 11/11/2020  
**EXPIRY DATE:** (mm/dd/yyyy) 11/11/2025  
**RECOMMENDED STORAGE:** Refrigerate ampoule

### 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  $^{19}\text{F}$  NMR.

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**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  
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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:**

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:**

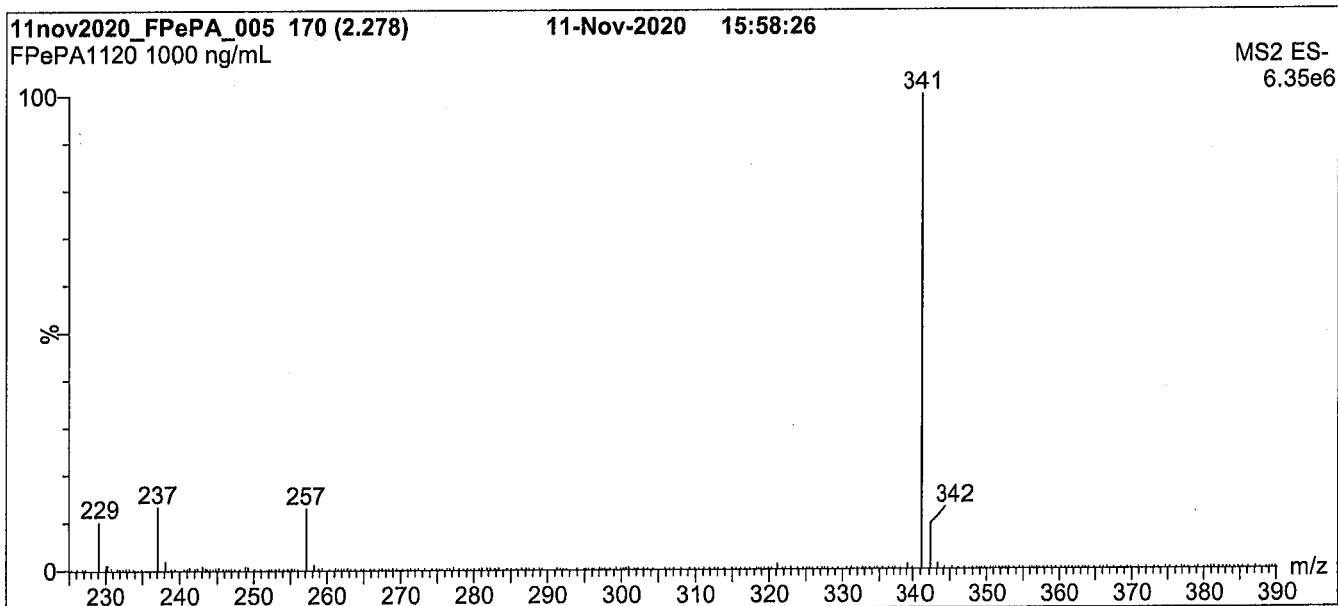
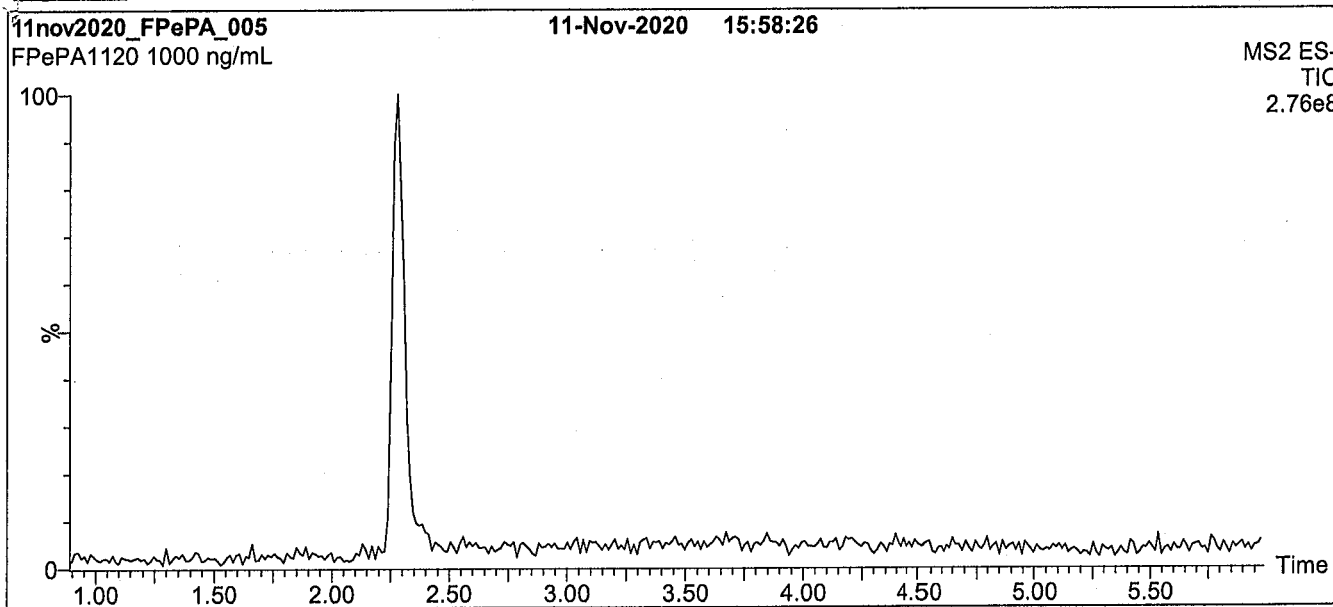
At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

**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](http://www.well-labs.com) or contact us directly at [info@well-labs.com](mailto: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 RP<sub>18</sub>  
1.7  $\mu$ m, 2.1 x 100 mm

Mobile phase: Gradient  
Start: 45% H<sub>2</sub>O / 55% (80:20 MeOH:ACN)  
(both with 10 mM NH<sub>4</sub>OAc 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

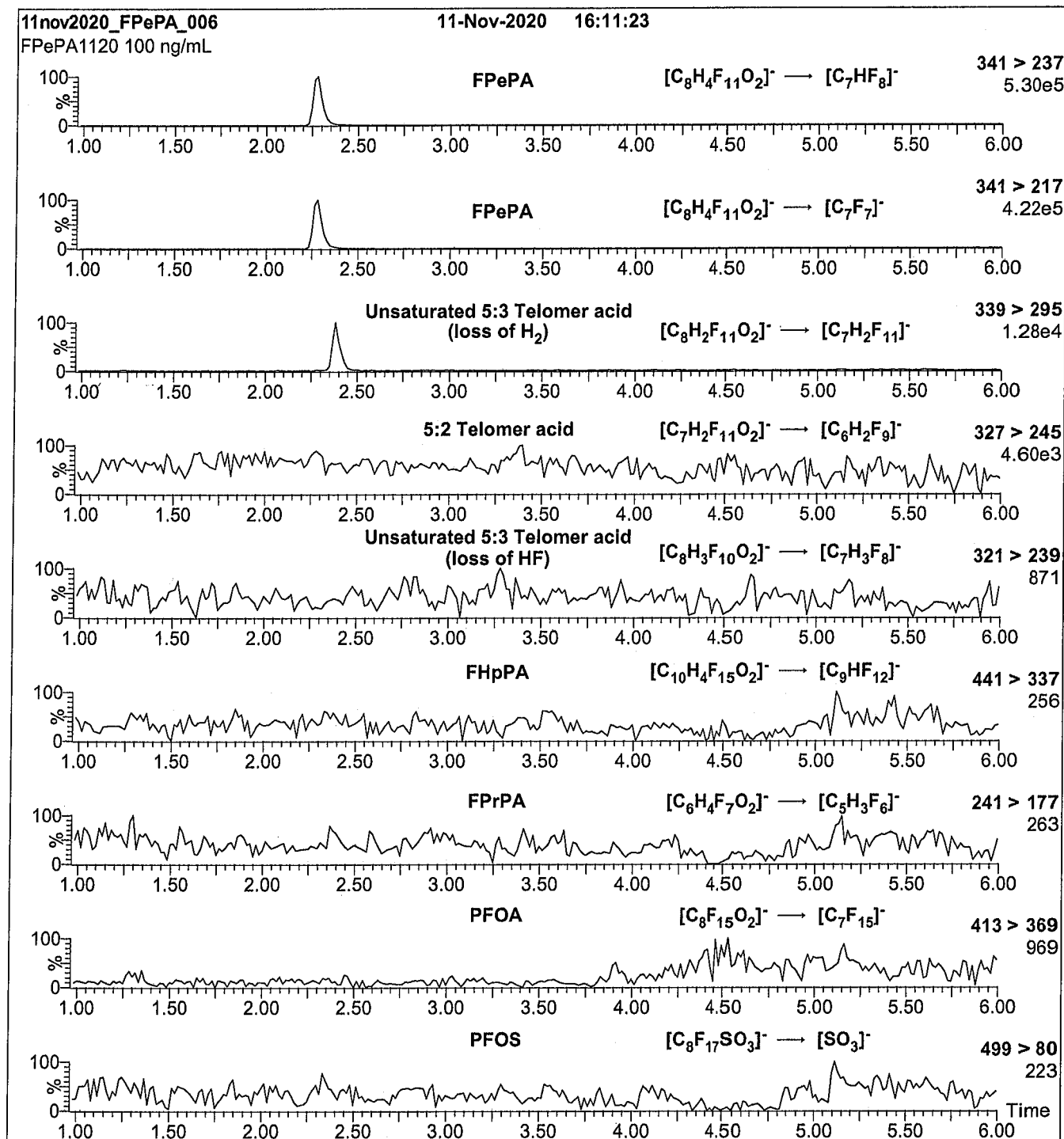
Flow: 300  $\mu$ L/min

**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  $\mu$ 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	Expires:	06/05/2022
Standard Type:	Analyte Spike	Prepared:	12/07/2021
Solvent:	MeOH	Prepared By:	Hart Hedgpeth
Final Volume (mls):	1.2	Department:	PFAS
Vials:	1	Last Edit:	12/07/2021 16:03 by HGH
Comments:	5:3 FTCA 50.0ug/mL		

<b>Analyte</b>	<b>Parent</b>	<b>CAS Number</b>	<b>Concentration</b>	<b>Units</b>
5:3 FTA		914637-49-3	50	ug/mL

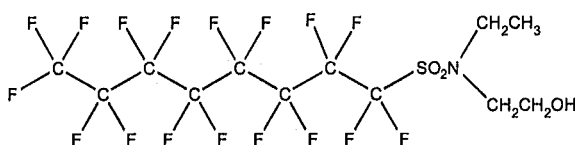


# WELLINGTON LABORATORIES

## 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<sub>12</sub>H<sub>10</sub>F<sub>17</sub>NO<sub>3</sub>S **MOLECULAR WEIGHT:** 571.25  
**CONCENTRATION:** 50.0 ± 2.5 µg/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

**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:

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where  $x$  is expressed as a relative standard uncertainty of the individual parameter.

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**LIMITED WARRANTY:**

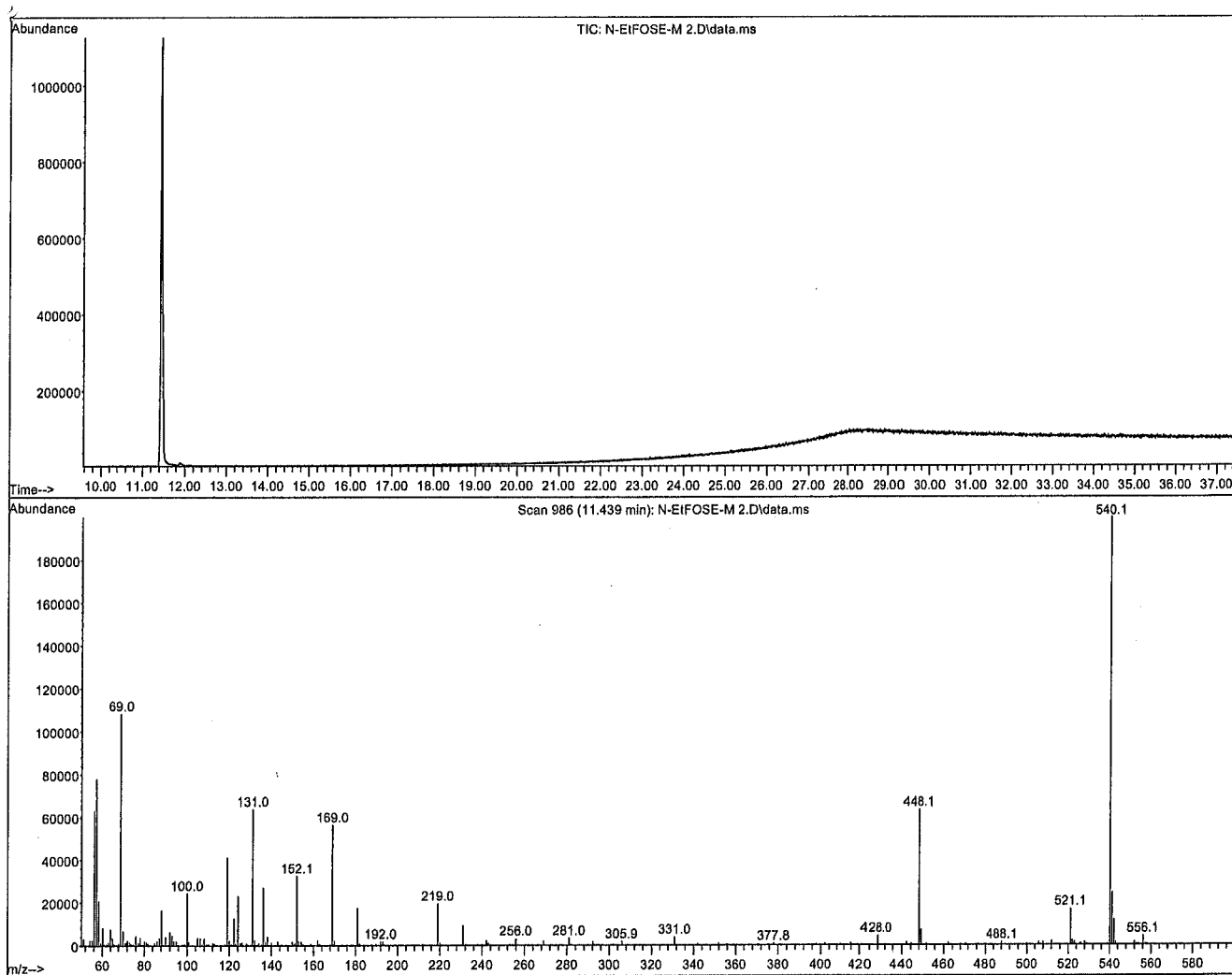
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**Figure 1: N-EtFOSE-M; HRGC/LRMS Data (Full Scan and Mass Spectrum)****Conditions for Figure 1:**

Agilent 7890A HRGC  
 Agilent 5975C MSD

**Chromatographic Conditions:**

Column: 30 m DB-5 (0.25 mm id, 0.25  $\mu$ m film thickness) Agilent J&W

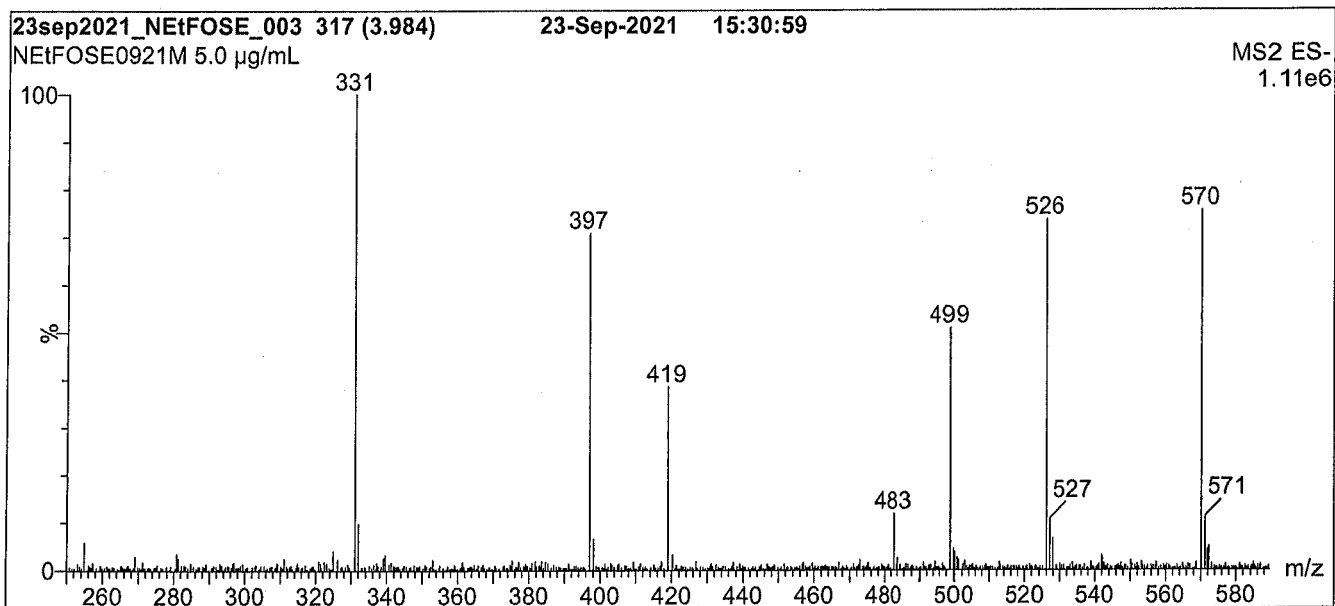
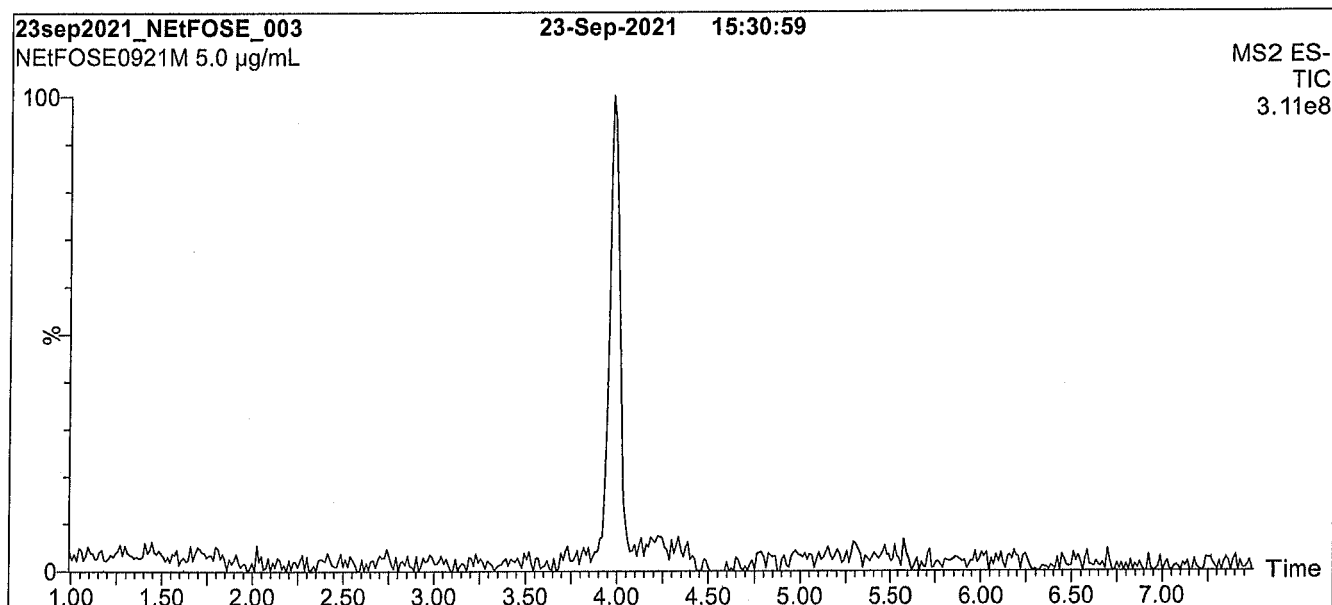
Flow: Constant at 1 mL/min

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 RP<sub>18</sub>  
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient

Start: 30% H<sub>2</sub>O / 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)

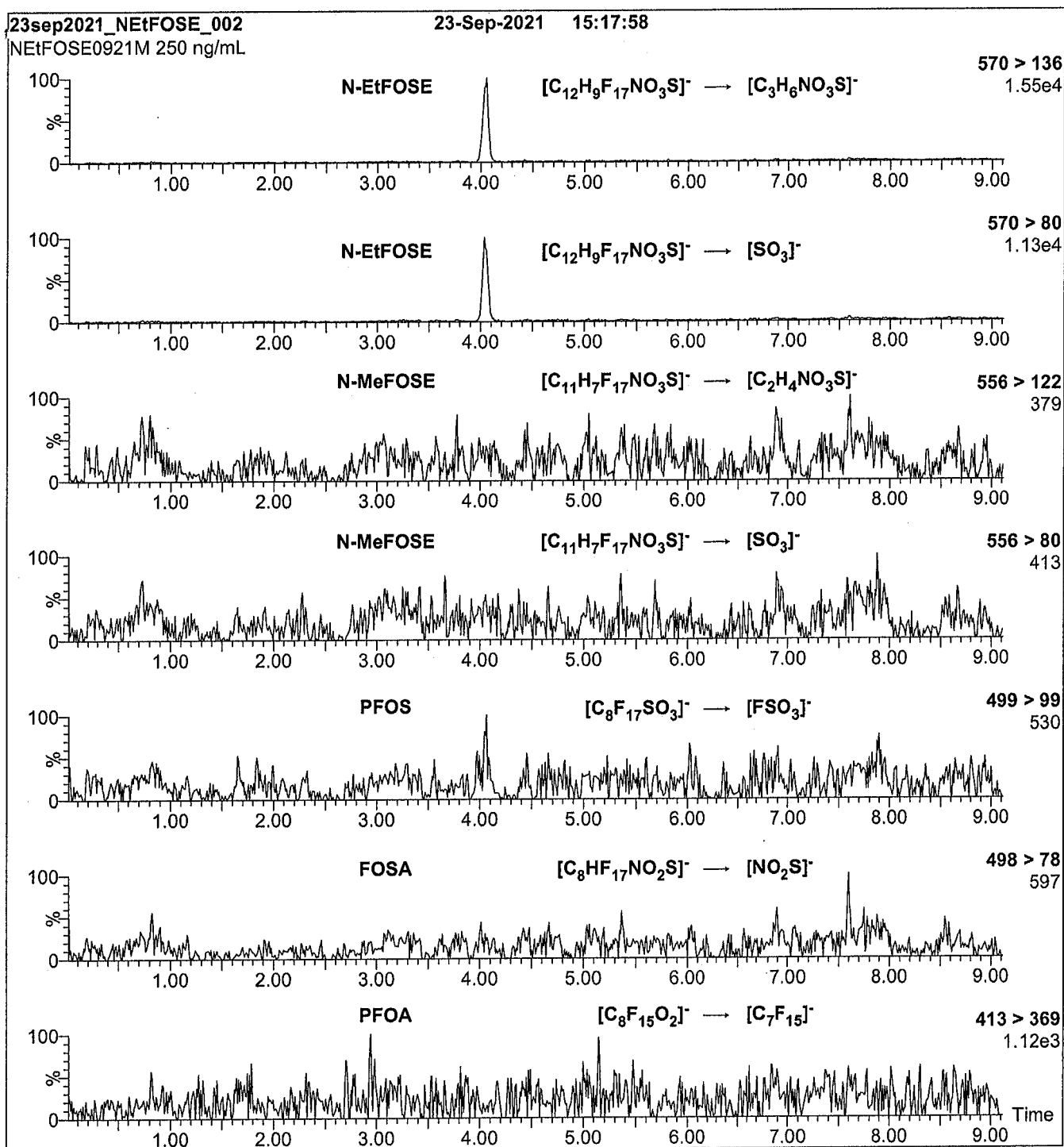
Source: Electrospray (negative)

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  $\mu$ L/min**MS Parameters:**

Collision Gas (mbar) = 3.14e-3

Collision Energy (eV) = 32

f  
t



# Analytical Standard Record

**21L0006**

Description:	PFAS - SAS EtFOSE 50ug/mL	Expires:	06/05/2022
Standard Type:	Analyte Spike	Prepared:	12/07/2021
Solvent:	MeOH	Prepared By:	Hart Hedgpeth
Final Volume (mls):	1.2	Department:	PFAS
Vials:	1	Last Edit:	12/07/2021 17:22 by HGH
Comments:	5:3 FTCA 50.0ug/mL		

<b>Analyte</b>	<b>Parent</b>	<b>CAS Number</b>	<b>Concentration</b>	<b>Units</b>
N-ETFOSE		1691-99-2	50	ug/mL

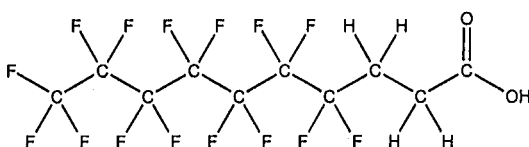


# WELLINGTON LABORATORIES

## CERTIFICATE OF ANALYSIS DOCUMENTATION

**PRODUCT CODE:** FHpPA **LOT NUMBER:** FHpPA1020  
**COMPOUND:** 3-Perfluoroheptyl propanoic acid

**STRUCTURE:** **CAS #:** 812-70-4



**MOLECULAR FORMULA:**  $C_{10}H_6F_{16}O_2$  **MOLECULAR WEIGHT:** 442.12  
**CONCENTRATION:**  $50.0 \pm 2.5 \mu\text{g/mL}$  **SOLVENT(S):** Methanol  
**CHEMICAL PURITY:** >98%  
**LAST TESTED:** (mm/dd/yyyy) 11/12/2020  
**EXPIRY DATE:** (mm/dd/yyyy) 11/12/2025  
**RECOMMENDED STORAGE:** Refrigerate ampoule

### 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

**INTENDED USE:**

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**HANDLING:**

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**SYNTHESIS / CHARACTERIZATION:**

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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:**

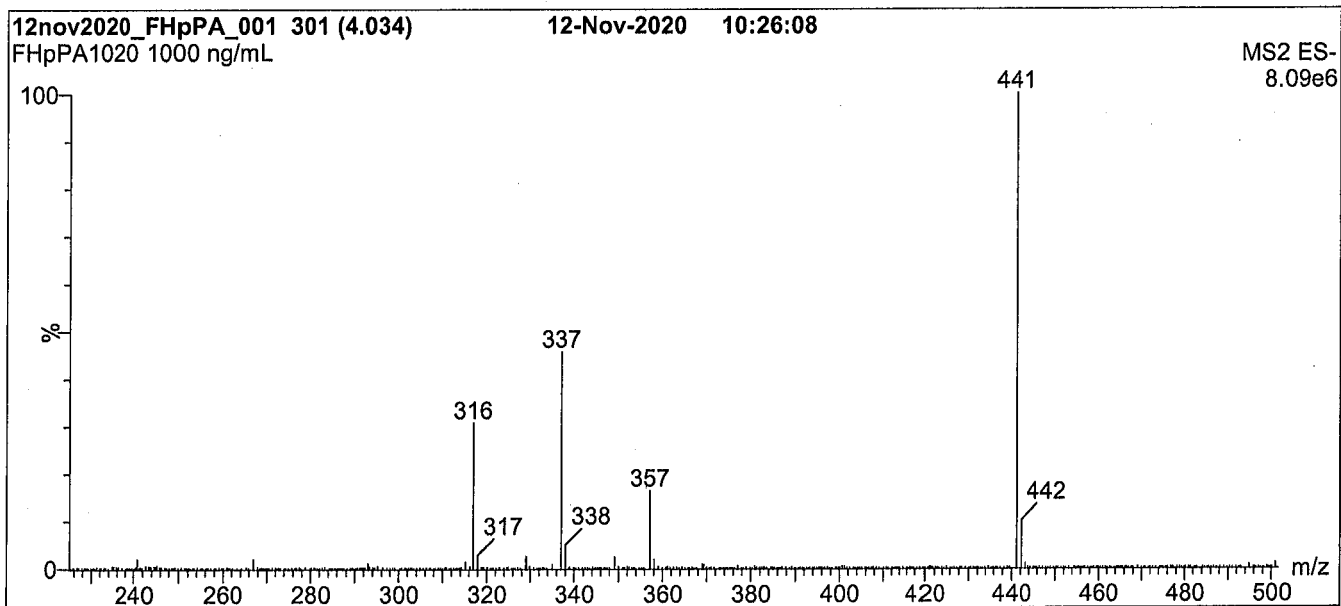
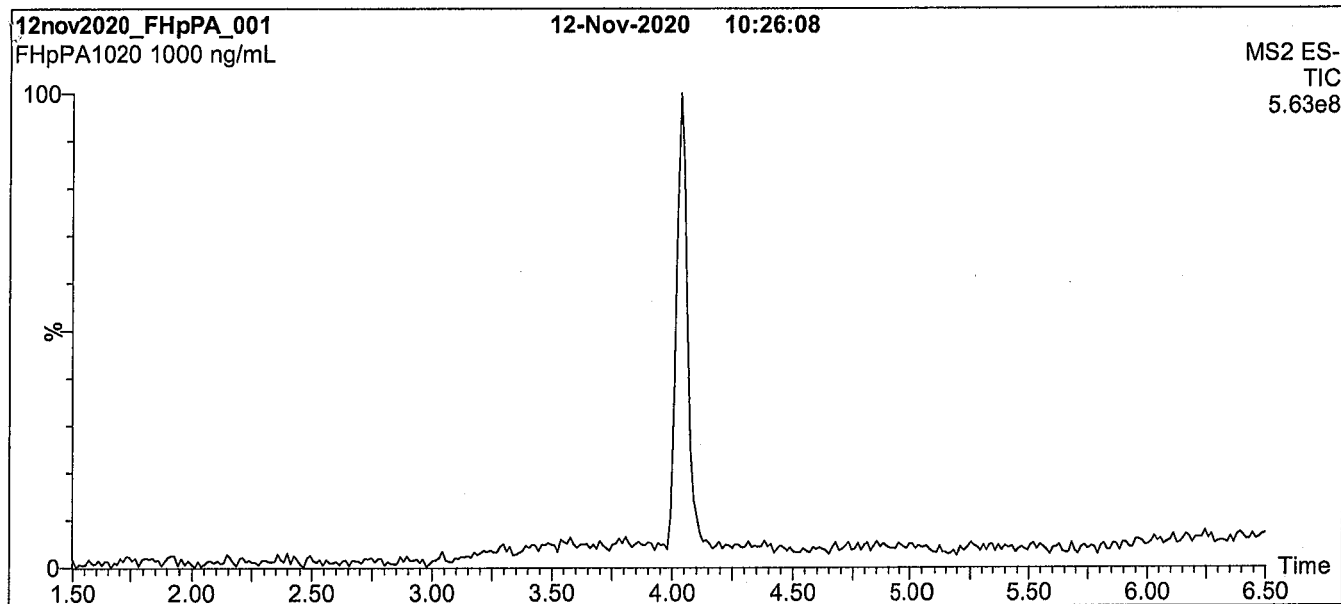
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**Figure 1: FHpPA; LC/MS Data (TIC and Mass Spectrum)****Conditions for Figure 1:**

Waters Acquity Ultra Performance LC  
Waters Xevo TQ-S micro MS

**Chromatographic Conditions:**

Column: Acquity UPLC BEH Shield RP<sub>18</sub>  
1.7  $\mu$ m, 2.1 x 100 mm

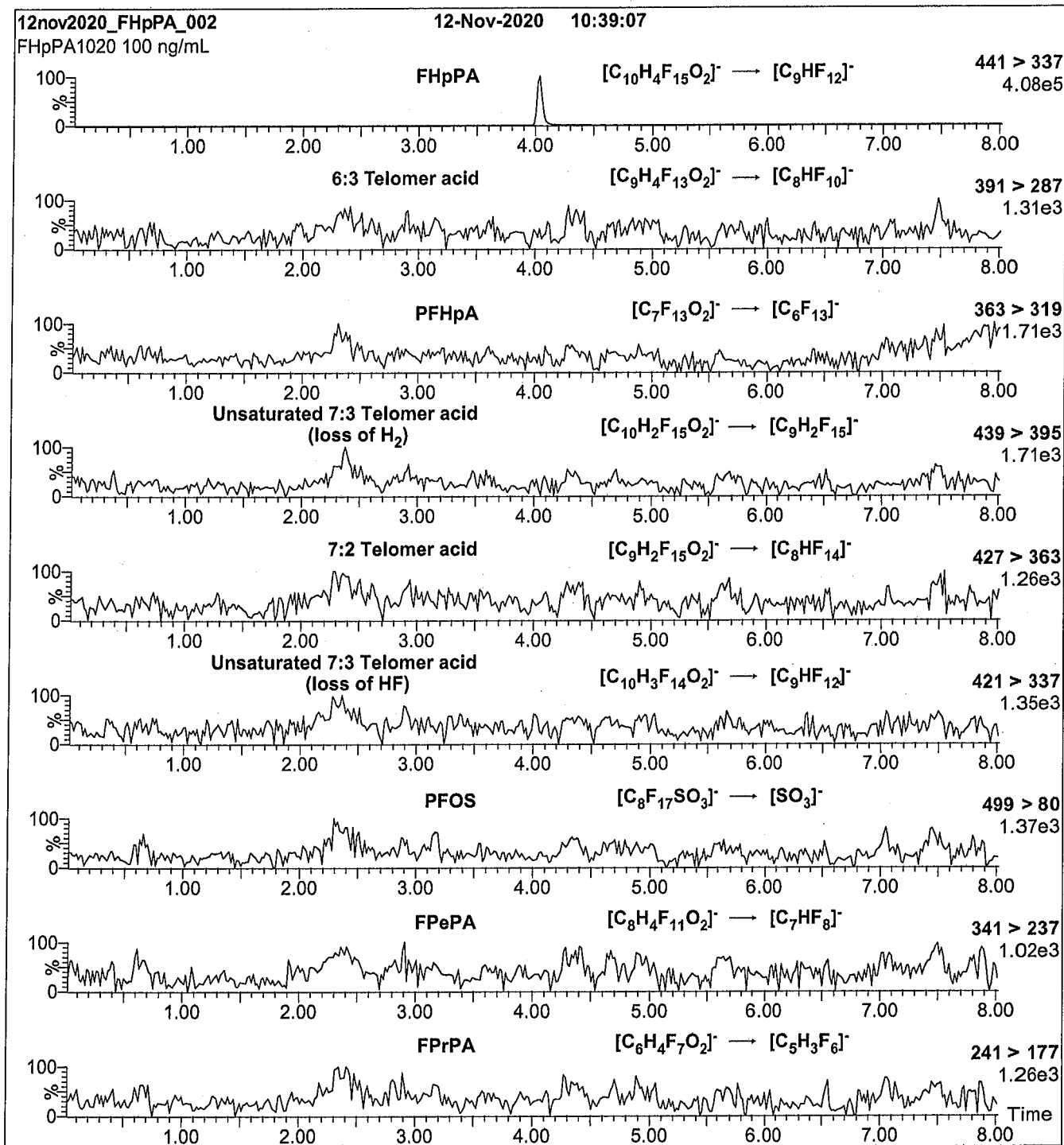
Mobile phase: Gradient  
Start: 45% H<sub>2</sub>O / 55% (80:20 MeOH:ACN)  
(both with 10 mM NH<sub>4</sub>OAc buffer)  
Ramp to 90% organic over 8 min and hold for  
2 min before returning to initial conditions in 0.75 min.  
Time: 12 min

Flow: 300  $\mu$ 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  $\mu$ 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	Expires:	06/05/2022
Standard Type:	Analyte Spike	Prepared:	12/07/2021
Solvent:	MeOH	Prepared By:	Hart Hedgpeth
Final Volume (mls):	1.2	Department:	PFAS
Vials:	1	Last Edit:	12/07/2021 16:16 by HGH
Comments:	7:3 FTCA 50.0ug/mL		

<b>Analyte</b>	<b>Parent</b>	<b>CAS Number</b>	<b>Concentration</b>	<b>Units</b>
7:3 FTA		812-70-4	50	ug/mL

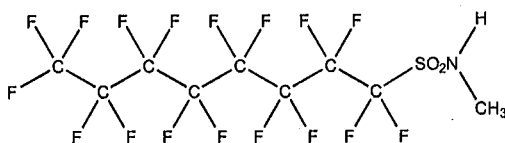


# WELLINGTON LABORATORIES

## CERTIFICATE OF ANALYSIS DOCUMENTATION

**PRODUCT CODE:** N-MeFOSA-M **LOT NUMBER:** NMeFOSA0721M  
**COMPOUND:** N-methylperfluoro-1-octanesulfonamide

**STRUCTURE:** **CAS #:** 31506-32-8



**MOLECULAR FORMULA:**  $C_9H_4F_{17}NO_2S$  **MOLECULAR WEIGHT:** 513.17  
**CONCENTRATION:**  $50.0 \pm 2.5 \mu\text{g/mL}$  **SOLVENT(S):** Methanol  
**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

### 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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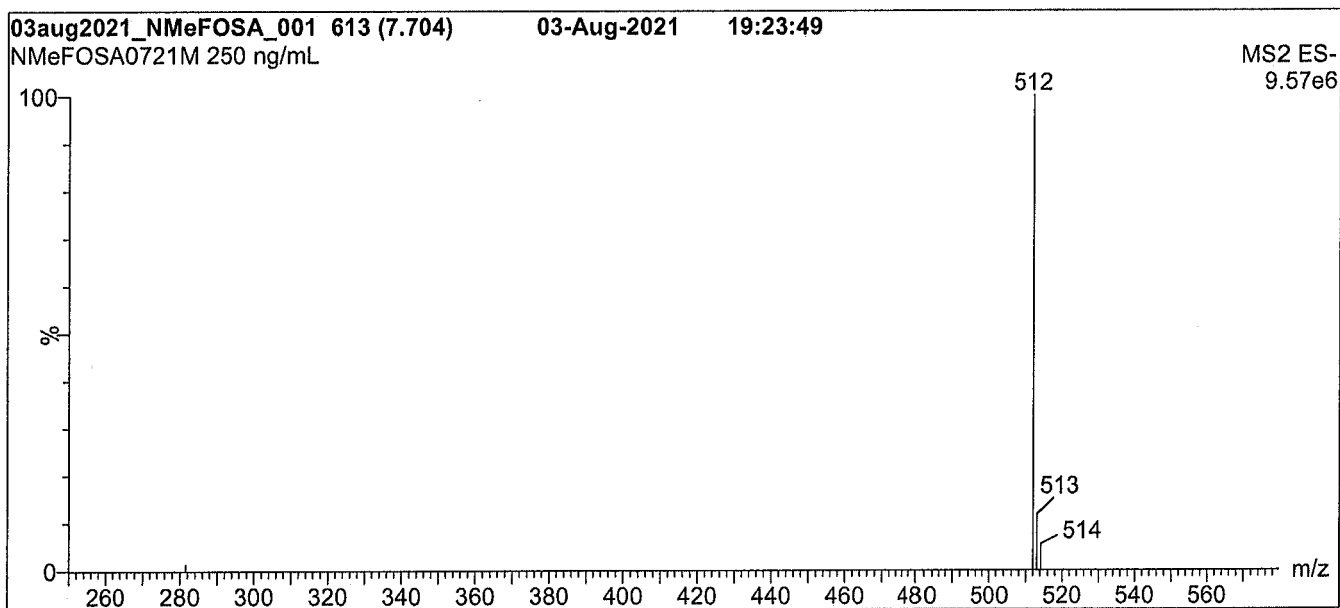
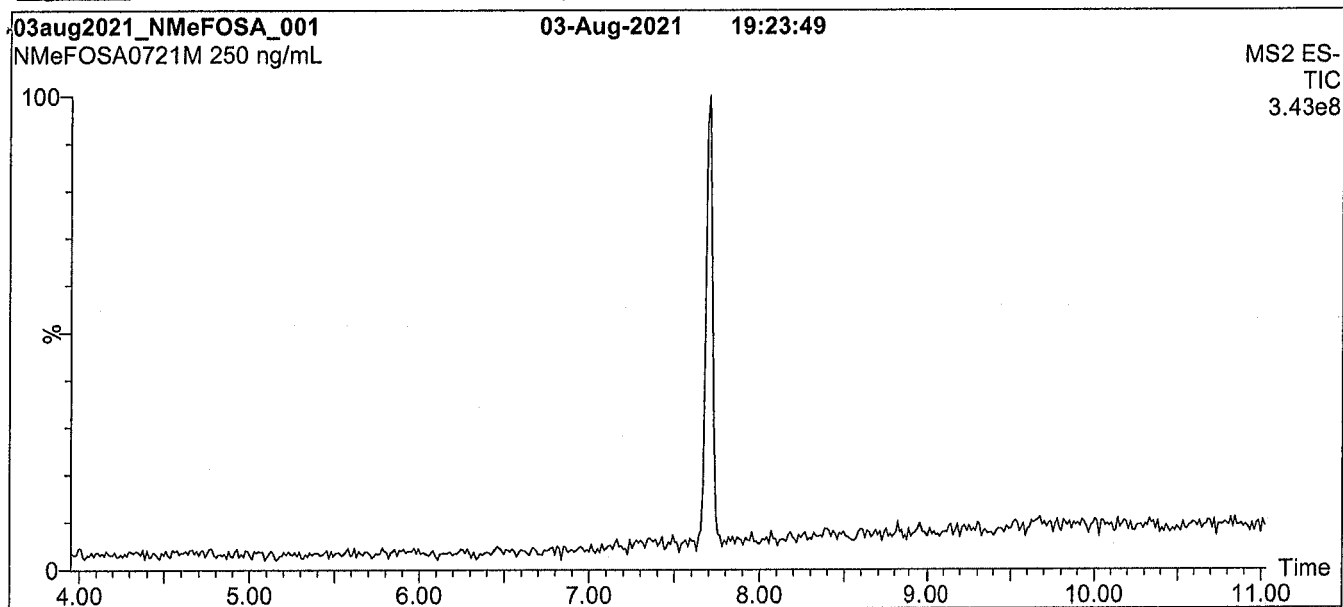
**QUALITY MANAGEMENT:**

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](http://www.well-labs.com) or contact us directly at [info@well-labs.com](mailto: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 RP<sub>18</sub>  
1.7  $\mu$ m, 2.1 x 100 mm

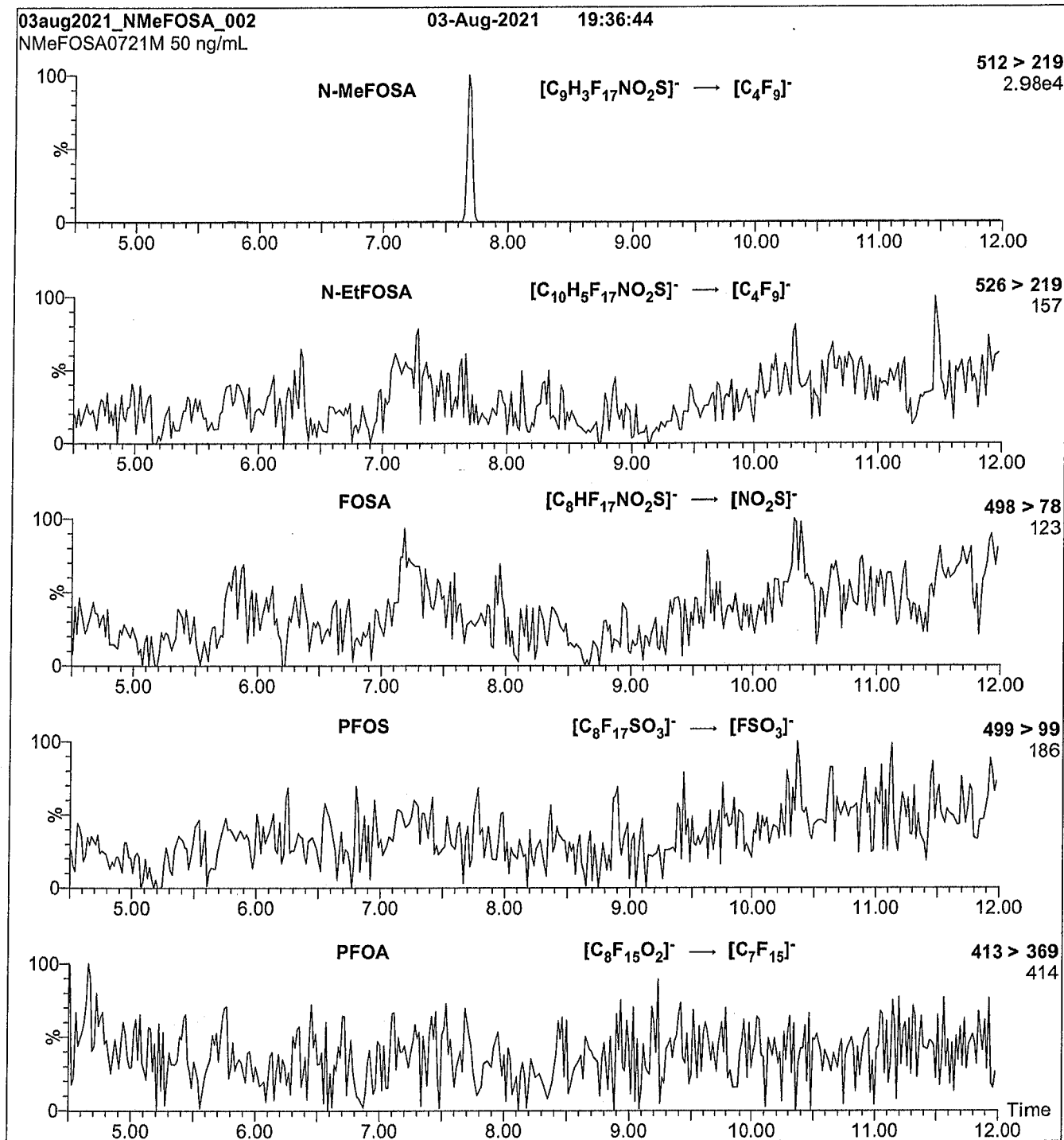
Mobile phase: Gradient  
Start: 40% H<sub>2</sub>O / 60% (80:20 MeOH:ACN)  
(both with 10 mM NH<sub>4</sub>OAc buffer)  
Ramp to 90% organic over 8 min and hold for  
2 min before returning to initial conditions in 0.75 min.  
Time: 12 min

Flow: 300  $\mu$ 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  $\mu$ 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

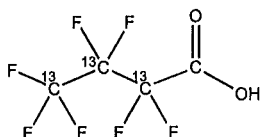


# WELLINGTON LABORATORIES

## CERTIFICATE OF ANALYSIS DOCUMENTATION

**PRODUCT CODE:** M3PFBA **LOT NUMBER:** M3PFBA0721  
**COMPOUND:** Perfluoro-n-(2,3,4-<sup>13</sup>C<sub>3</sub>)butanoic acid

**STRUCTURE:** **CAS #:** Not available



**MOLECULAR FORMULA:** <sup>13</sup>C<sub>3</sub><sup>12</sup>CHF<sub>7</sub>O<sub>2</sub> **MOLECULAR WEIGHT:** 217.02  
**CONCENTRATION:** 50.0 ± 2.5 µg/mL **SOLVENT(S):** Methanol  
 Water (<1%)  
**CHEMICAL PURITY:** >98% **ISOTOPIC PURITY:** ≥99%<sup>13</sup>C  
 (2,3,4-<sup>13</sup>C<sub>3</sub>)  
**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-(<sup>13</sup>C<sub>3</sub>)propanoic acid and also contains ~1.0% of perfluoro-n-(1,2,3,4-<sup>13</sup>C<sub>4</sub>)butanoic acid due to the naturally occurring isotopic abundance of <sup>13</sup>C 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

**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:**

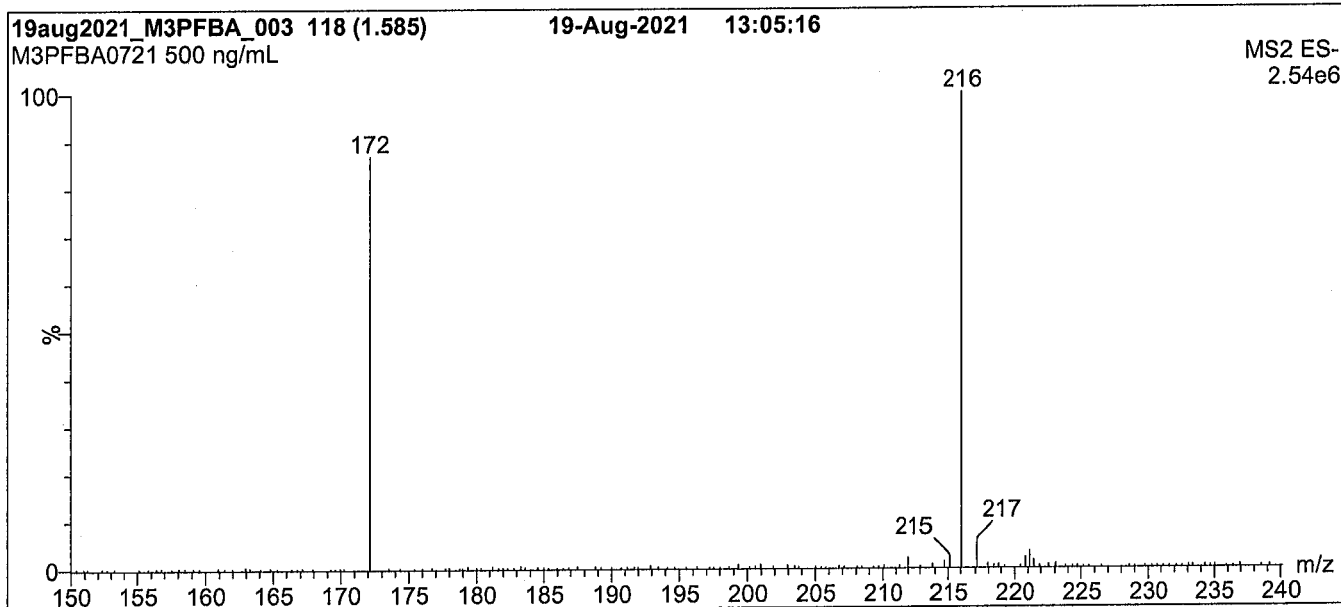
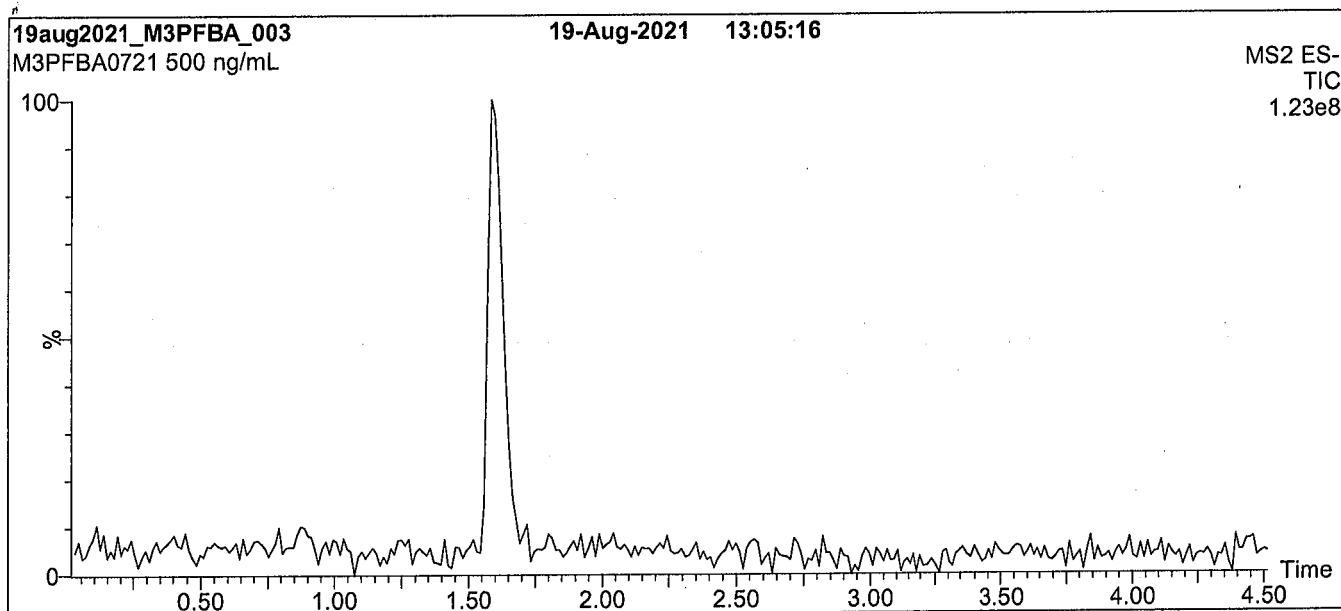
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**Figure 1: M3PFBA; LC/MS Data (Full Scan and Mass Spectrum)****Conditions for Figure 1:**

Waters Acquity Ultra Performance LC  
Waters Xevo TQ-S micro MS

**Chromatographic Conditions:**

Column: Acquity UPLC BEH Shield RP<sub>18</sub>  
1.7  $\mu$ m, 2.1 x 100 mm

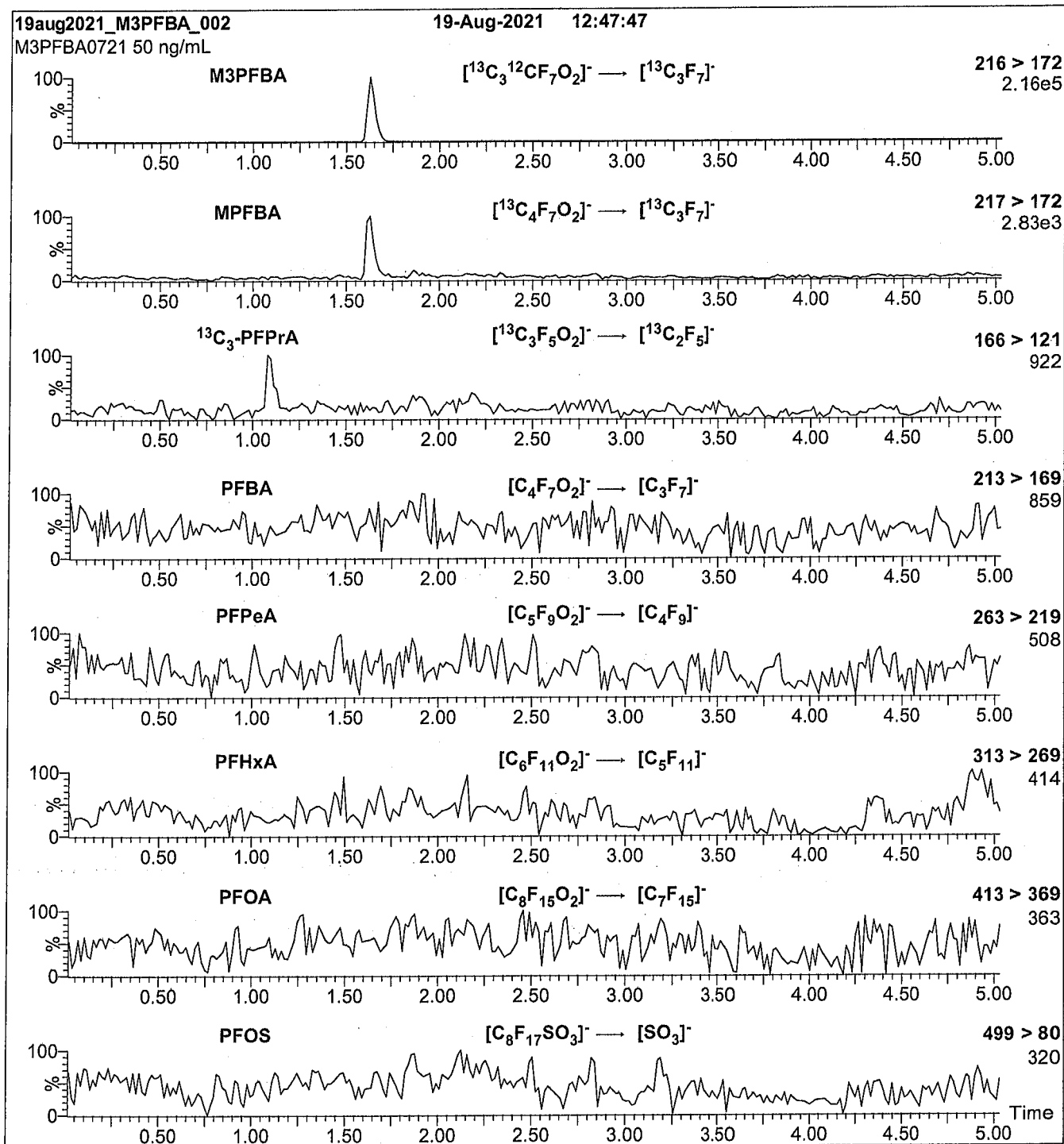
Mobile phase: Gradient  
Start: 60% H<sub>2</sub>O / 40% (80:20 MeOH:ACN)  
(both with 10 mM NH<sub>4</sub>OAc buffer)  
Ramp to 90% organic over 8 min and hold for  
2 min before returning to initial conditions in 0.5 min.  
Time: 12 min

Flow: 300  $\mu$ 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 ( $^{\circ}$ 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

<b>Analyte</b>	<b>Parent</b>	<b>CAS Number</b>	<b>Concentration</b>	<b>Units</b>
13C3-PFBA		13C3-PFBA	50	ug/mL



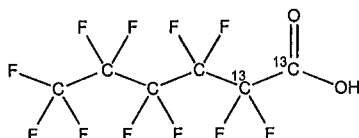


# WELLINGTON LABORATORIES

## CERTIFICATE OF ANALYSIS DOCUMENTATION

**PRODUCT CODE:** MPFHxA **LOT NUMBER:** MPFHxA0921  
**COMPOUND:** Perfluoro-n-(1,2-<sup>13</sup>C<sub>2</sub>)hexanoic acid

**STRUCTURE:** **CAS #:** 960315-47-3



**MOLECULAR FORMULA:** <sup>13</sup>C<sub>2</sub><sup>12</sup>C<sub>4</sub>HF<sub>11</sub>O<sub>2</sub> **MOLECULAR WEIGHT:** 316.04  
**CONCENTRATION:** 50.0 ± 2.5 µg/mL **SOLVENT(S):** Methanol  
 Water (<1%)  
**CHEMICAL PURITY:** >98% **ISOTOPIC PURITY:** ≥99% <sup>13</sup>C  
 (1,2-<sup>13</sup>C<sub>2</sub>)  
**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:

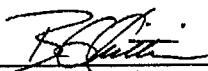
Figure 1: LC/MS Data (Full Scan and Mass Spectrum)  
 Figure 2: LC/MS/MS Data (Selected MRM Transitions)

### 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.

**FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE**

Certified By:

  
 B.G. Chittim, General Manager

Date: 10/22/2021  
 (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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**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:**

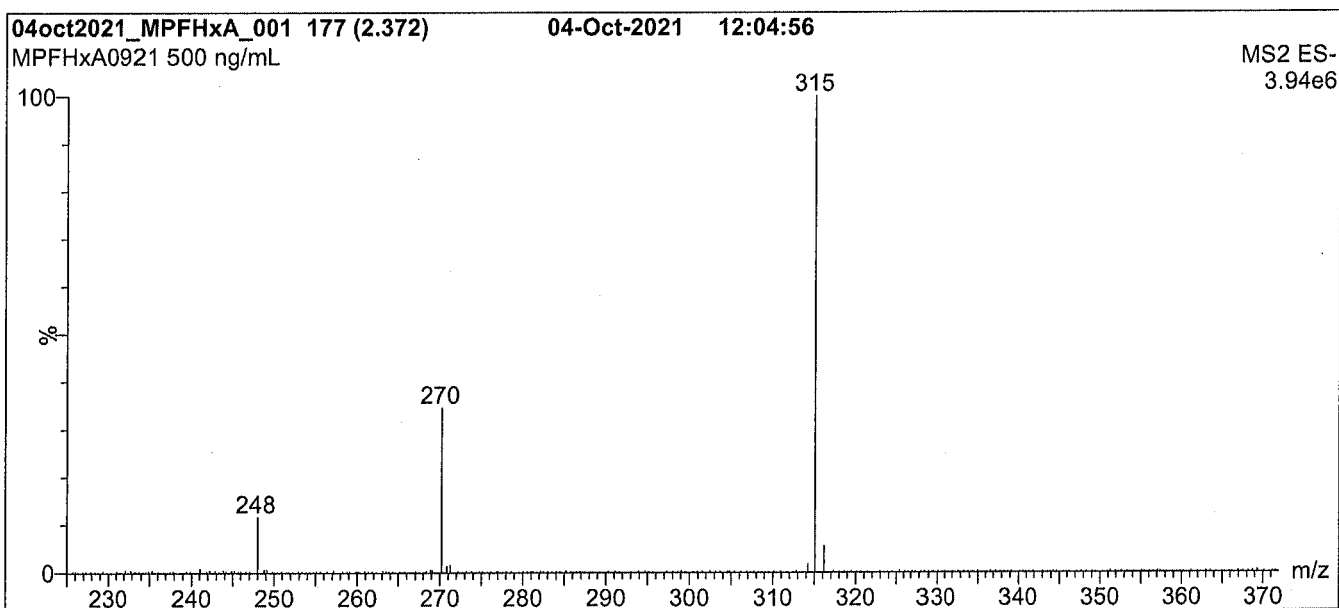
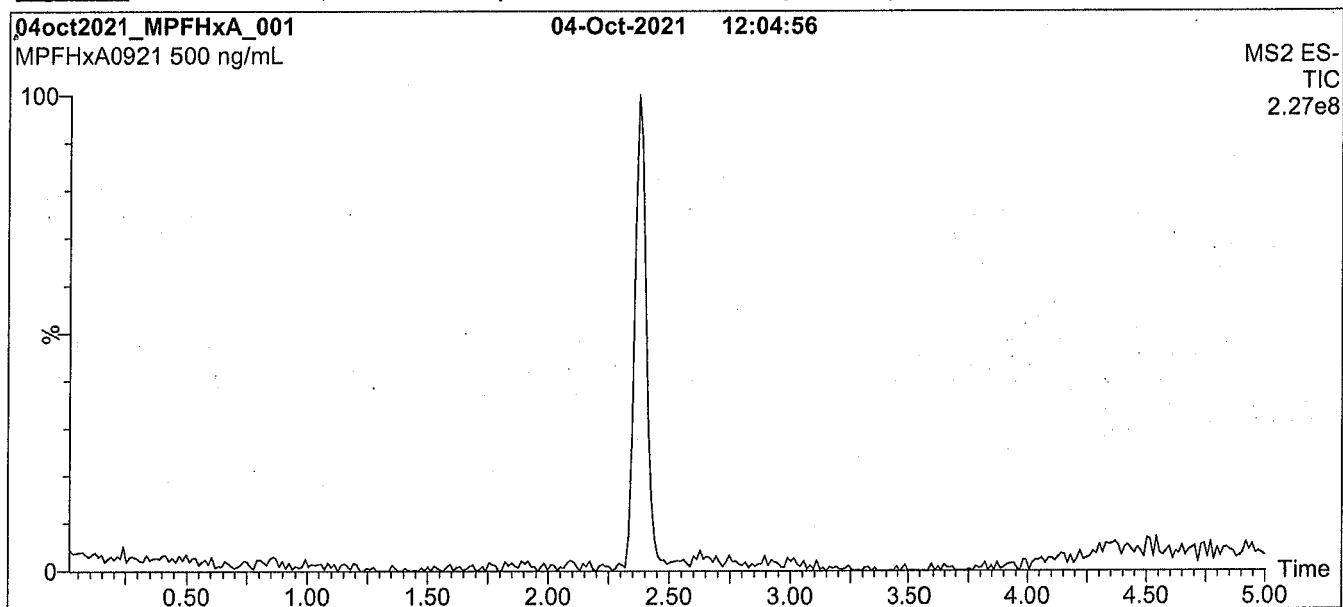
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**Figure 1: MPFHxA; LC/MS Data (Full Scan and Mass Spectrum)****Conditions for Figure 1:**

Waters Acquity Ultra Performance LC  
Waters Xevo TQ-S micro MS

**Chromatographic Conditions:**

Column: Acquity UPLC BEH Shield RP<sub>18</sub>  
1.7  $\mu$ m, 2.1 x 100 mm

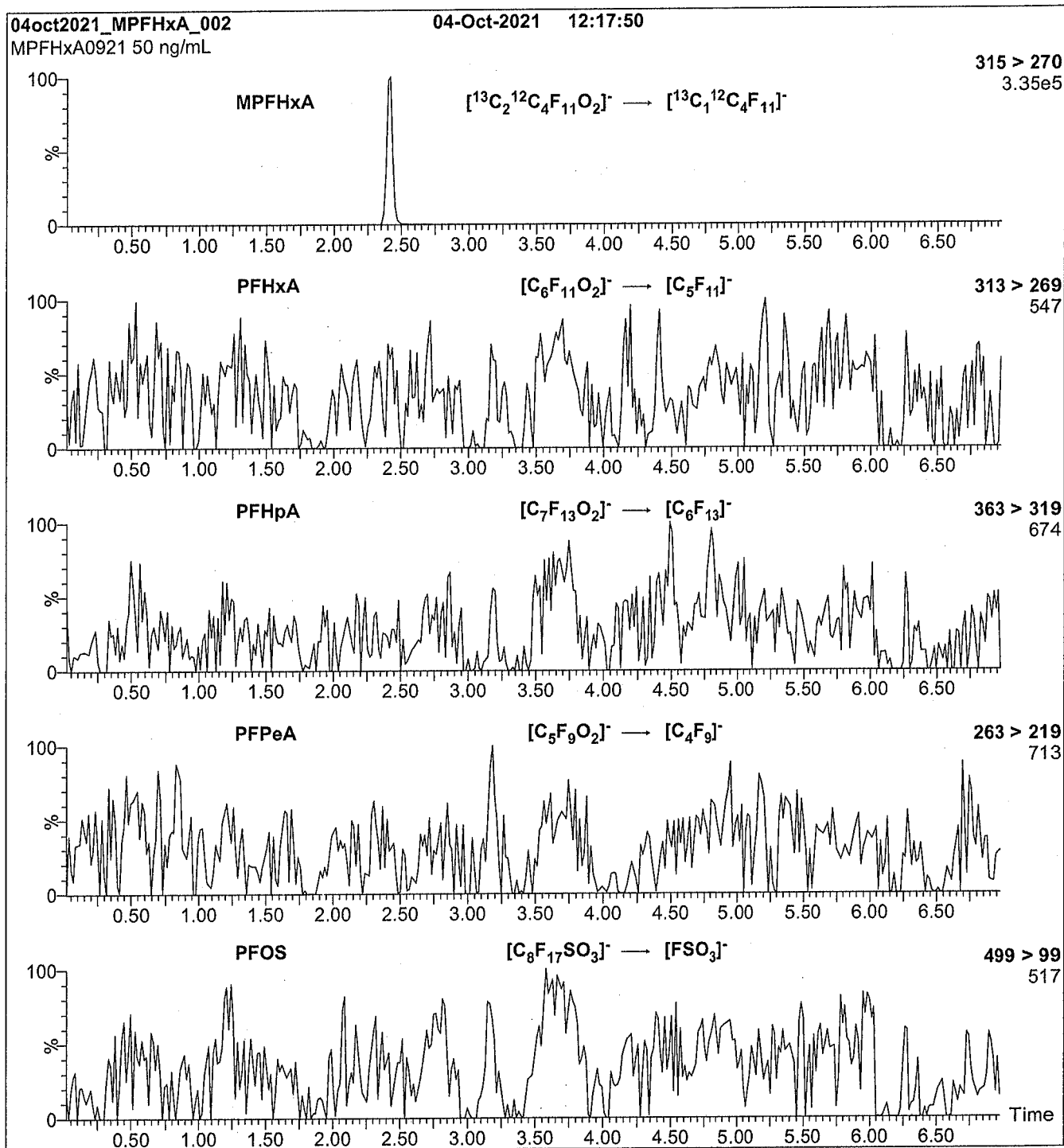
Mobile phase: Gradient  
Start: 50% H<sub>2</sub>O / 50% (80:20 MeOH:ACN)  
(both with 10 mM NH<sub>4</sub>OAc buffer)  
Ramp to 90% organic over 7 min and hold for  
2 min before returning to initial conditions in 1 min.  
Time: 12 min

Flow: 300  $\mu$ 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 ( $^{\circ}$ 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	Expires:	10/04/2026
Standard Type:	Analyte Spike	Prepared:	10/04/2021
Solvent:	MeOH	Prepared By:	Dipti Gokal
Final Volume (mls):	1.2	Department:	PFAS
Vials:	1	Last Edit:	01/20/2022 15:48 by HGH

<b>Analyte</b>	<b>Parent</b>	<b>CAS Number</b>	<b>Concentration</b>	<b>Units</b>
13C2-PFHxA		13C2-PFHxA	50	ug/mL

# Analytical Standard Record

**22A0117**

Description:	PFAS - IIS MPFHxA 50ug/mL	Expires:	10/04/2026
Standard Type:	Analyte Spike	Prepared:	10/04/2021
Solvent:	MeOH	Prepared By:	Dipti Gokal
Final Volume (mls):	1.2	Department:	PFAS
Vials:	1	Last Edit:	01/20/2022 15:48 by HGH

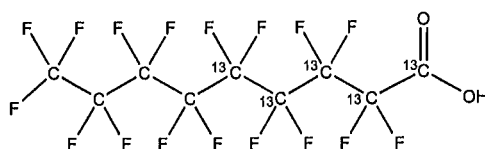
Analyte	Parent	CAS Number	Concentration	Units
13C2-PFHxA		13C2-PFHxA	50	ug/mL



# WELLINGTON LABORATORIES

## CERTIFICATE OF ANALYSIS DOCUMENTATION

**PRODUCT CODE:** MPFNA **LOT NUMBER:** MPFNA1021  
**COMPOUND:** Perfluoro-n-(1,2,3,4,5-<sup>13</sup>C<sub>5</sub>)nonanoic acid  
**STRUCTURE:** **CAS #:** 960315-49-5



**MOLECULAR FORMULA:**  $^{13}\text{C}_5^{12}\text{C}_4\text{HF}_{17}\text{O}_2$  **MOLECULAR WEIGHT:** 469.04  
**CONCENTRATION:** 50.0 ± 2.5 µg/mL **SOLVENT(S):** Methanol  
 Water (<1%)  
**CHEMICAL PURITY:** >98% **ISOTOPIC PURITY:** ≥99% <sup>13</sup>C  
 (1,2,3,4,5-<sup>13</sup>C<sub>5</sub>)  
**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:

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: 11/01/2021  
 (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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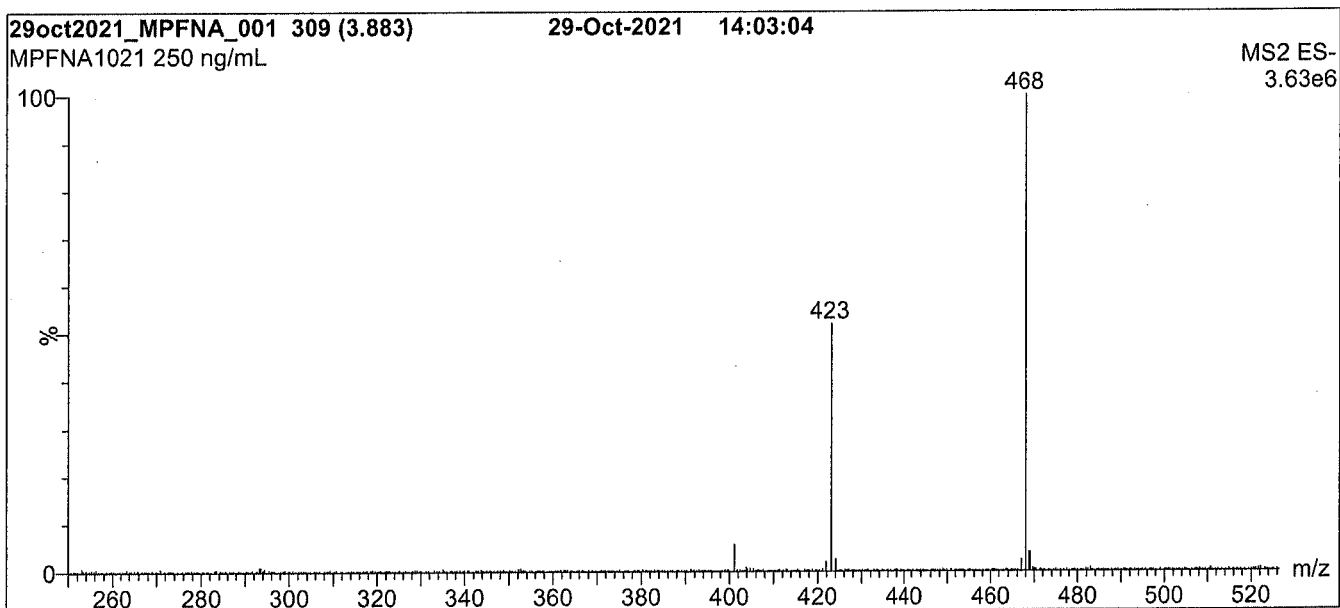
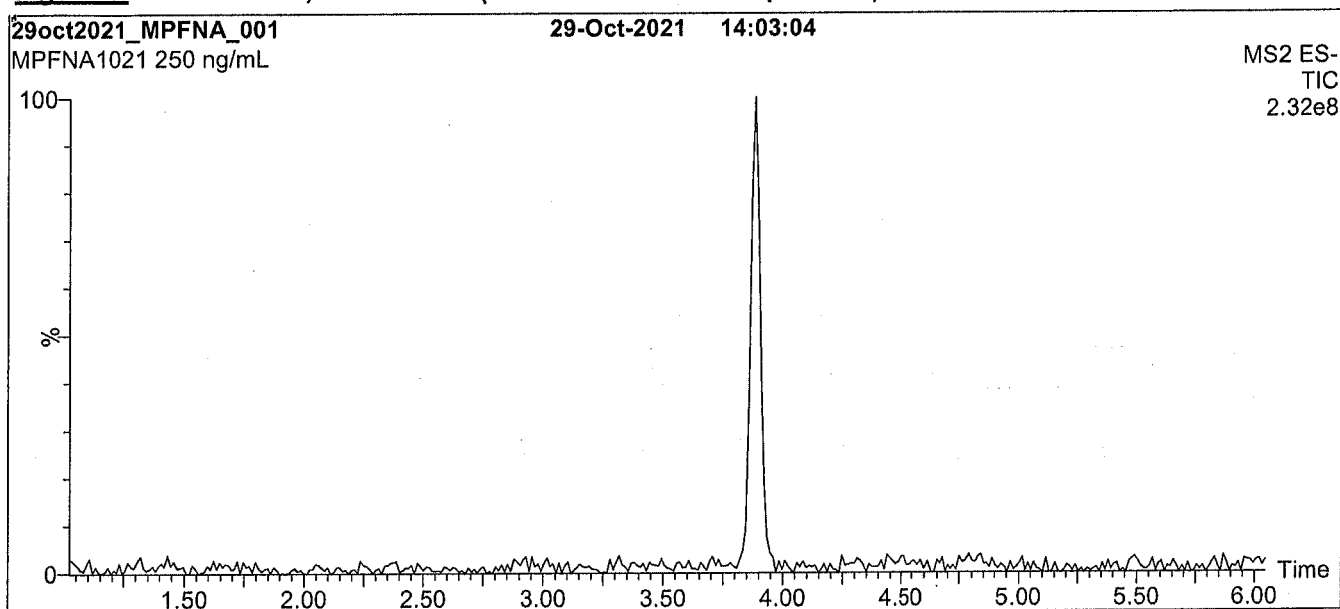
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**Figure 1: MPFNA; LC/MS Data (Full Scan and Mass Spectrum)****Conditions for Figure 1:**

Waters Acquity Ultra Performance LC  
Waters Xevo TQ-S micro MS

**Chromatographic Conditions:**

Column: Acquity UPLC BEH Shield RP<sub>18</sub>  
1.7  $\mu$ m, 2.1 x 100 mm

Mobile phase: Gradient

Start: 40% H<sub>2</sub>O / 60% (80:20 MeOH:ACN)  
(both with 10 mM NH<sub>4</sub>OAc 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  $\mu$ L/min

**MS Parameters:**

Experiment: Full Scan (250 - 850 amu)

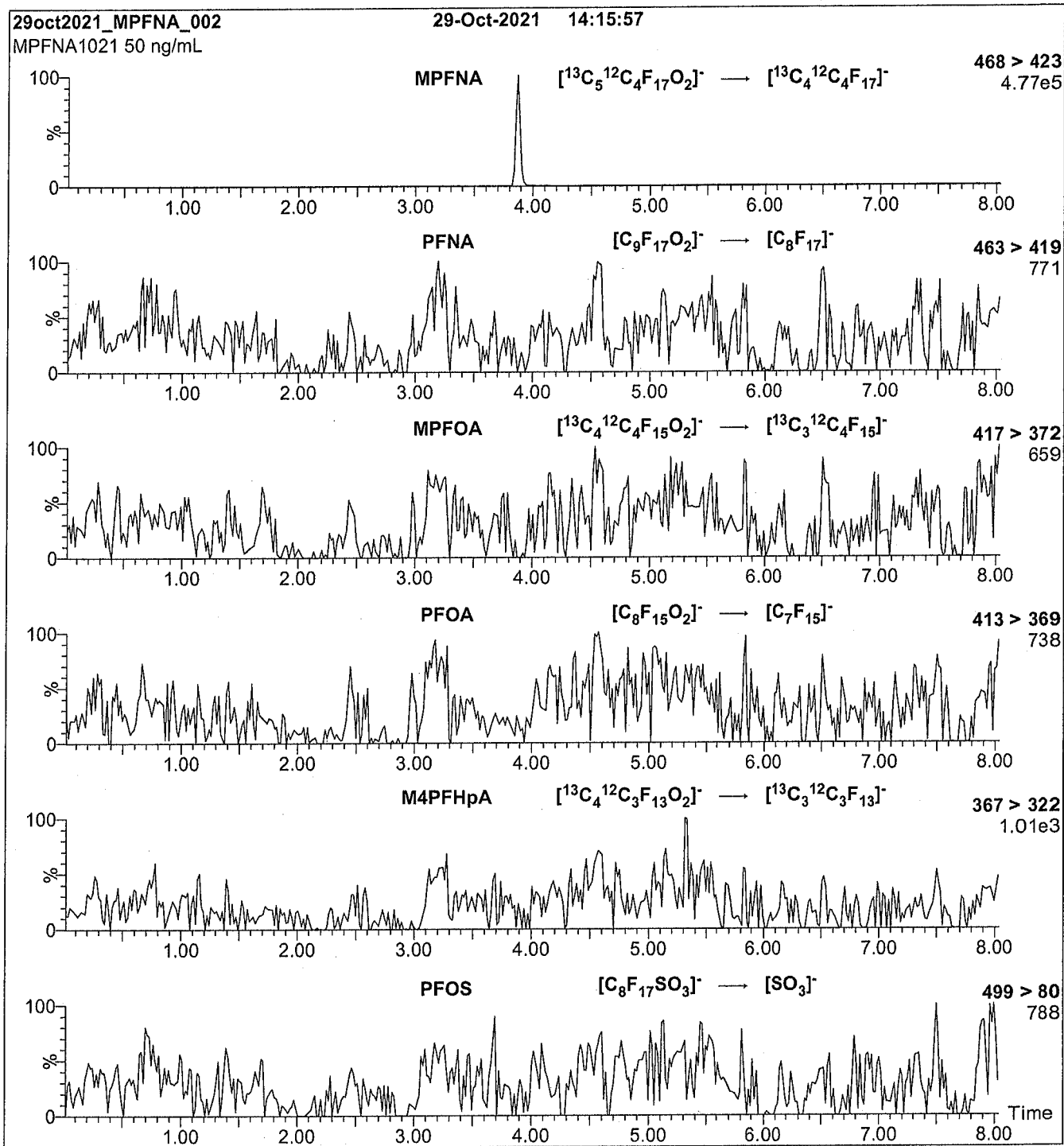
Source: Electrospray (negative)

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	Expires:	10/29/2026
Standard Type:	Analyte Spike	Prepared:	10/29/2021
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
13C5-PFNA		13C5-PFNA	50	ug/mL

# Analytical Standard Record

**22A0118**

Description:	PFAS - IIS MPFNA 50ug/mL	Expires:	10/29/2026
Standard Type:	Analyte Spike	Prepared:	10/29/2021
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
13C5-PFNA		13C5-PFNA	50	ug/mL



**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 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:**

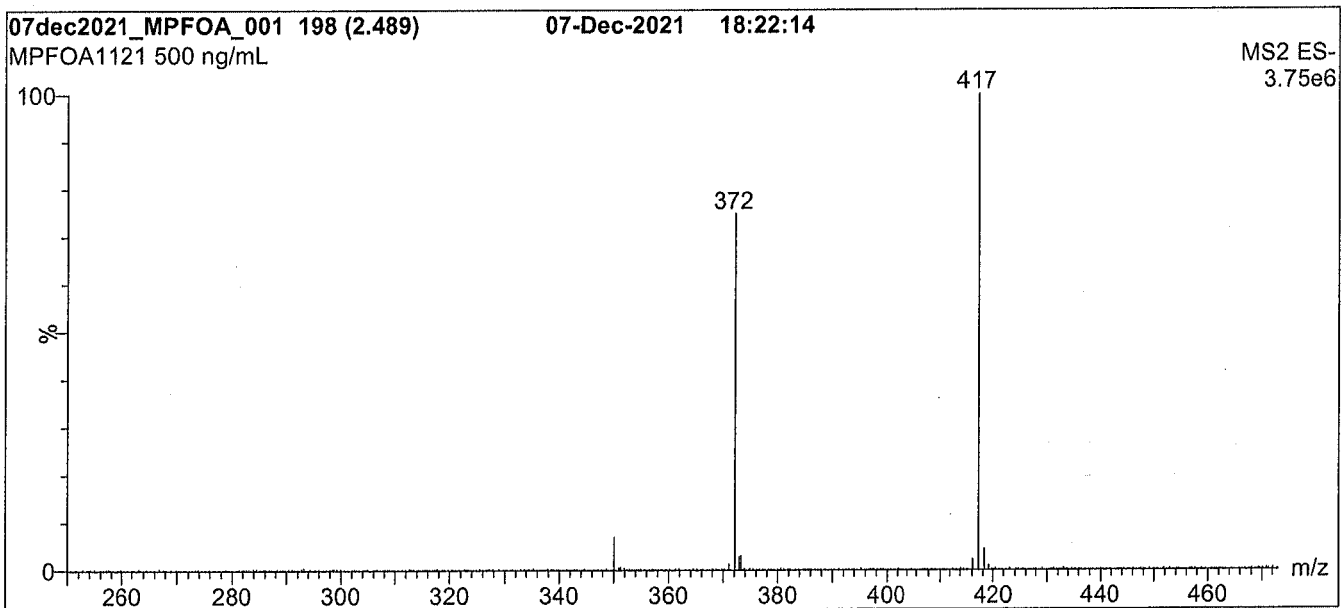
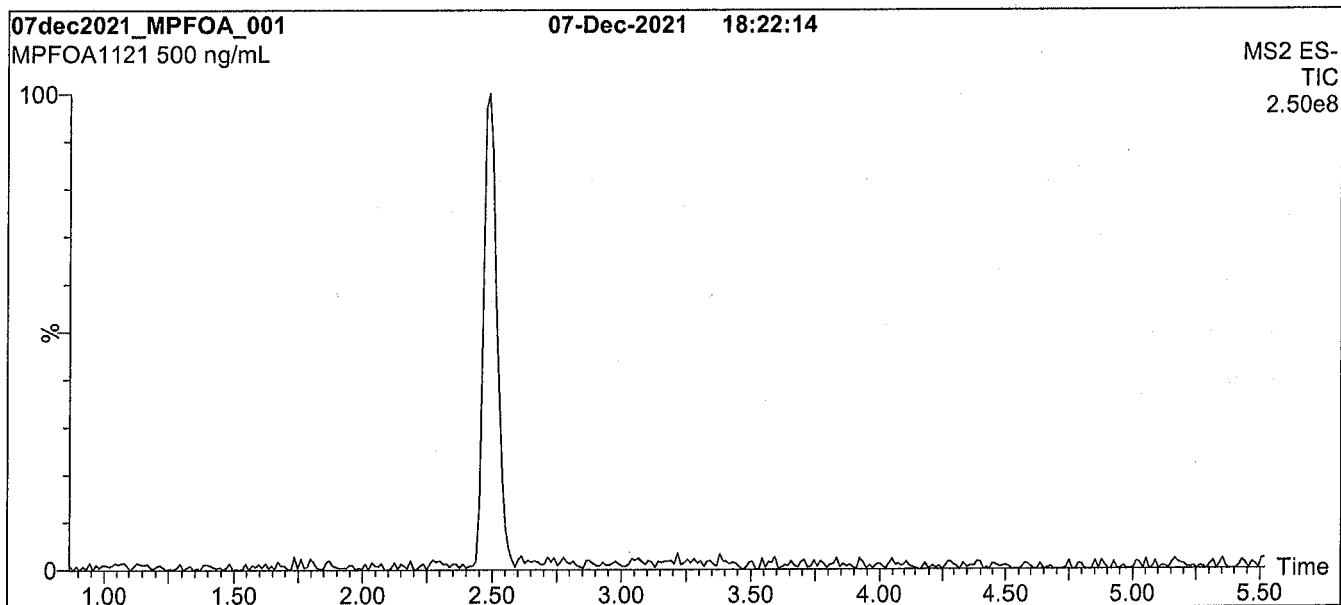
At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

**QUALITY MANAGEMENT:**

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**Figure 1: MPFOA; 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 RP<sub>18</sub>  
1.7  $\mu$ m, 2.1 x 100 mm

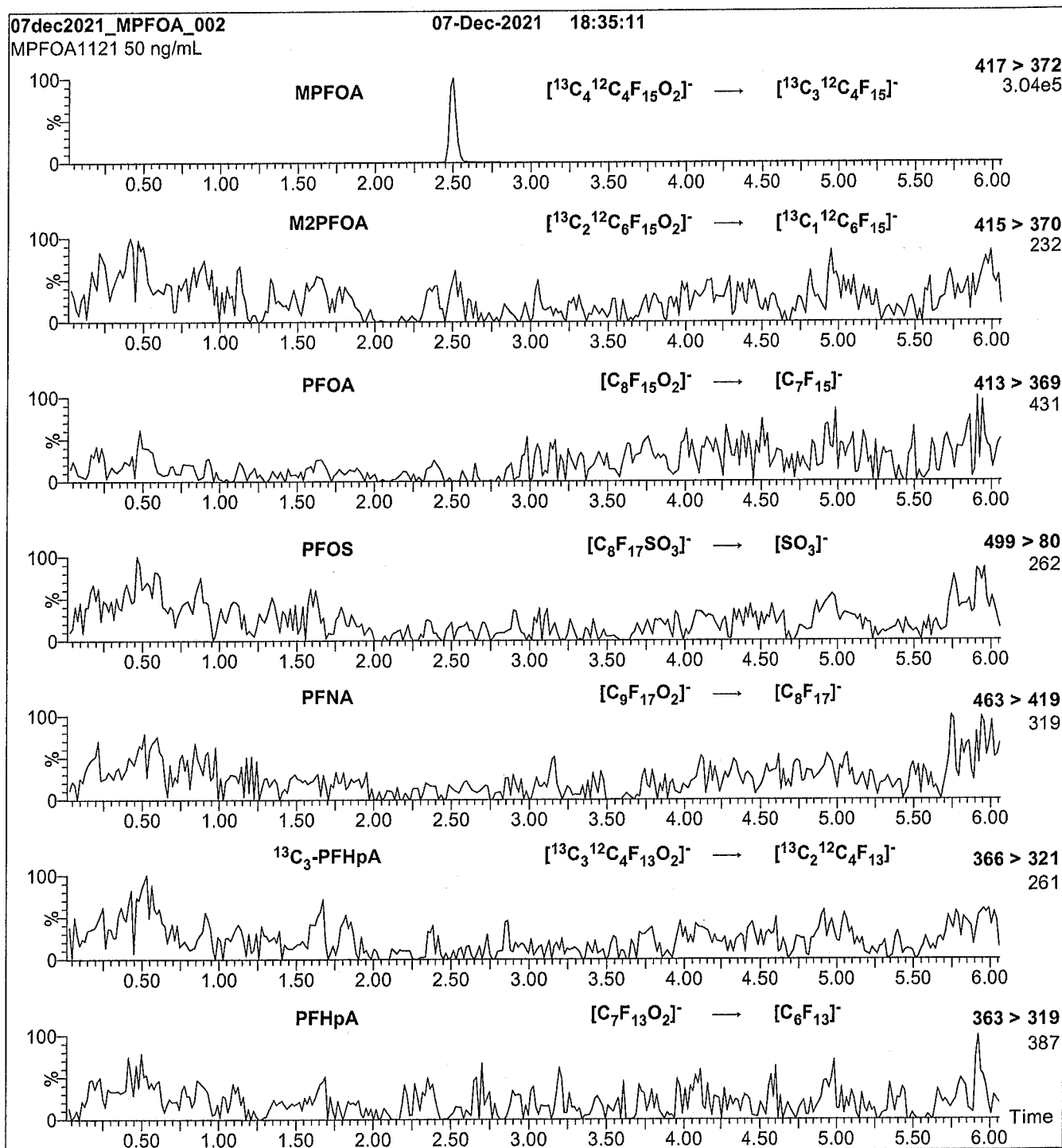
Mobile phase: Gradient  
Start: 40% H<sub>2</sub>O / 60% (80:20 MeOH:ACN)  
(both with 10 mM NH<sub>4</sub>OAc buffer)  
Ramp to 90% organic over 8 min and hold for 2 min  
before returning to initial conditions in 0.75 min.  
Time: 12 min

Flow: 300  $\mu$ 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	Expires:	12/07/2026
Standard Type:	Analyte Spike	Prepared:	12/07/2021
Solvent:	MeOH	Prepared By:	Dipti Gokal
Final Volume (mls):	1.2	Department:	PFAS
Vials:	1	Last Edit:	01/20/2022 15:48 by HGH

<b>Analyte</b>	<b>Parent</b>	<b>CAS Number</b>	<b>Concentration</b>	<b>Units</b>
13C4-PFOA		13C4-PFOA	50	ug/mL

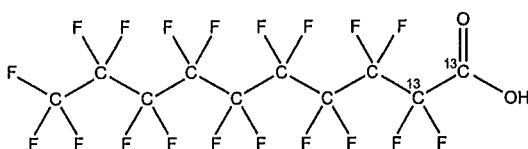


# WELLINGTON LABORATORIES

## CERTIFICATE OF ANALYSIS DOCUMENTATION

**PRODUCT CODE:** MPFDA **LOT NUMBER:** MPFDA1221  
**COMPOUND:** Perfluoro-n-(1,2-<sup>13</sup>C<sub>2</sub>)decanoic acid

**STRUCTURE:** **CAS #:** 960315-50-8



**MOLECULAR FORMULA:** <sup>13</sup>C<sub>2</sub><sup>12</sup>C<sub>8</sub>HF<sub>19</sub>O<sub>2</sub> **MOLECULAR WEIGHT:** 516.07  
**CONCENTRATION:** 50.0 ± 2.5 µg/mL **SOLVENT(S):** Methanol  
 Water (<1%)  
**CHEMICAL PURITY:** >98% **ISOTOPIC PURITY:** ≥99% <sup>13</sup>C  
 (1,2-<sup>13</sup>C<sub>2</sub>)  
**LAST TESTED:** (mm/dd/yyyy) 12/08/2021  
**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

**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:**

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**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.

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where  $x$  is expressed as a relative standard uncertainty of the individual parameter.

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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:**

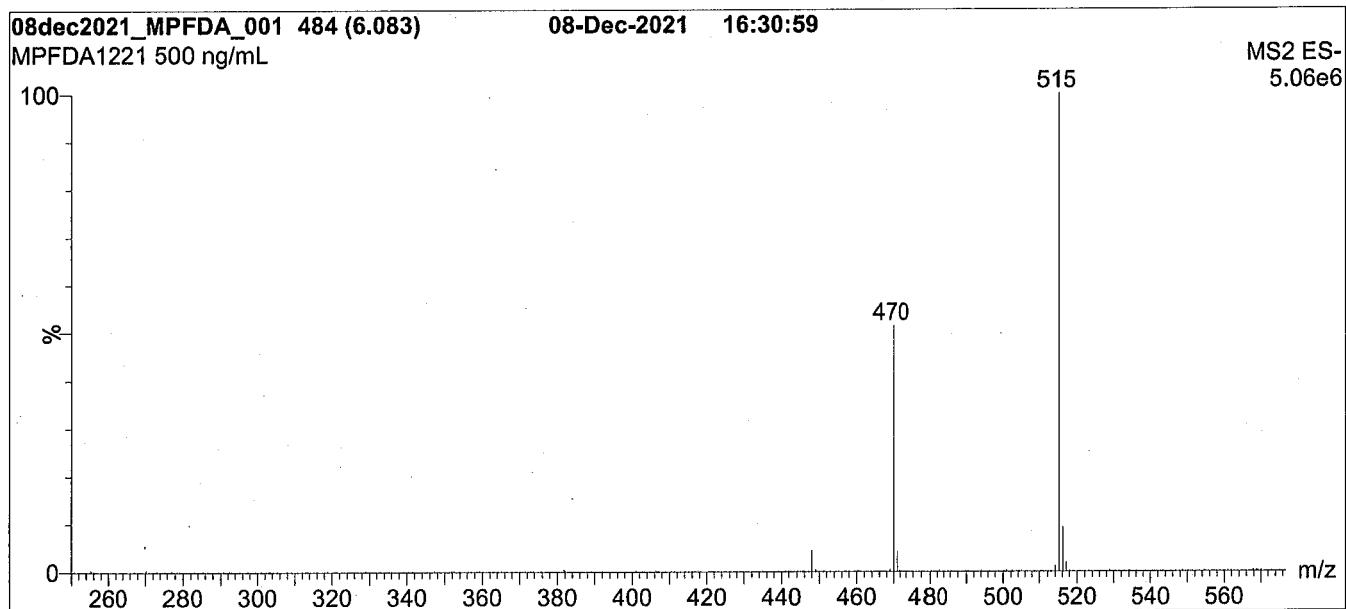
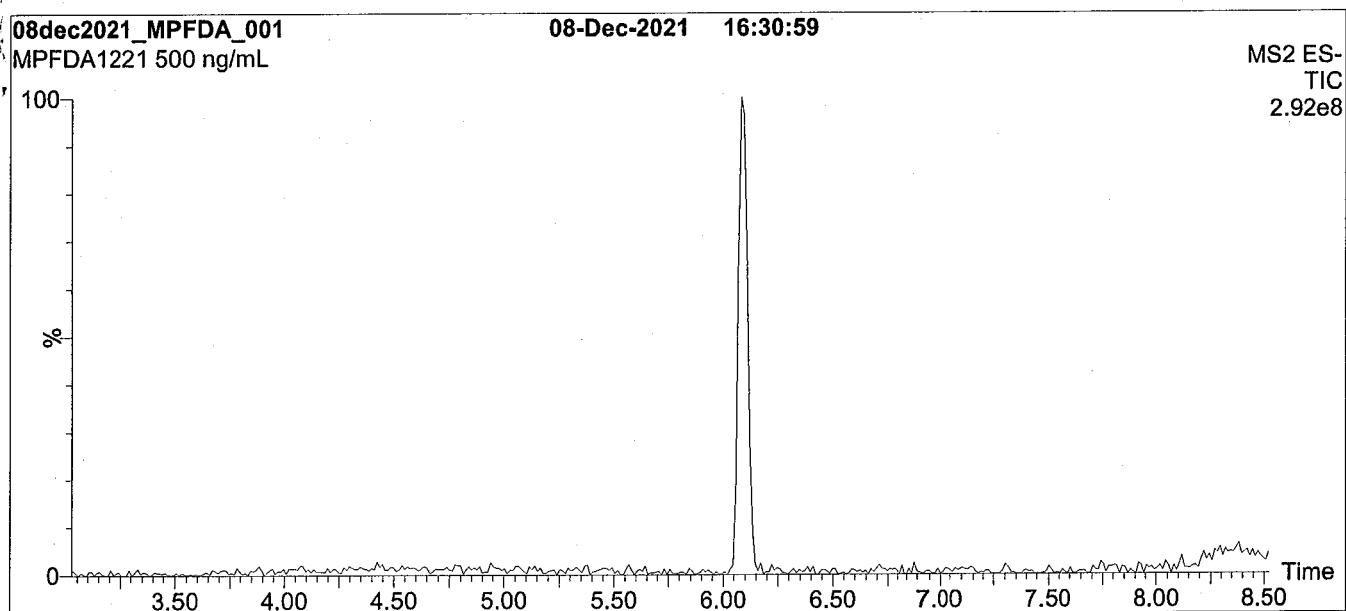
At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

**QUALITY MANAGEMENT:**

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**Figure 1: MPFDA; 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 RP<sub>18</sub>  
1.7  $\mu$ m, 2.1 x 100 mm

Mobile phase: Gradient

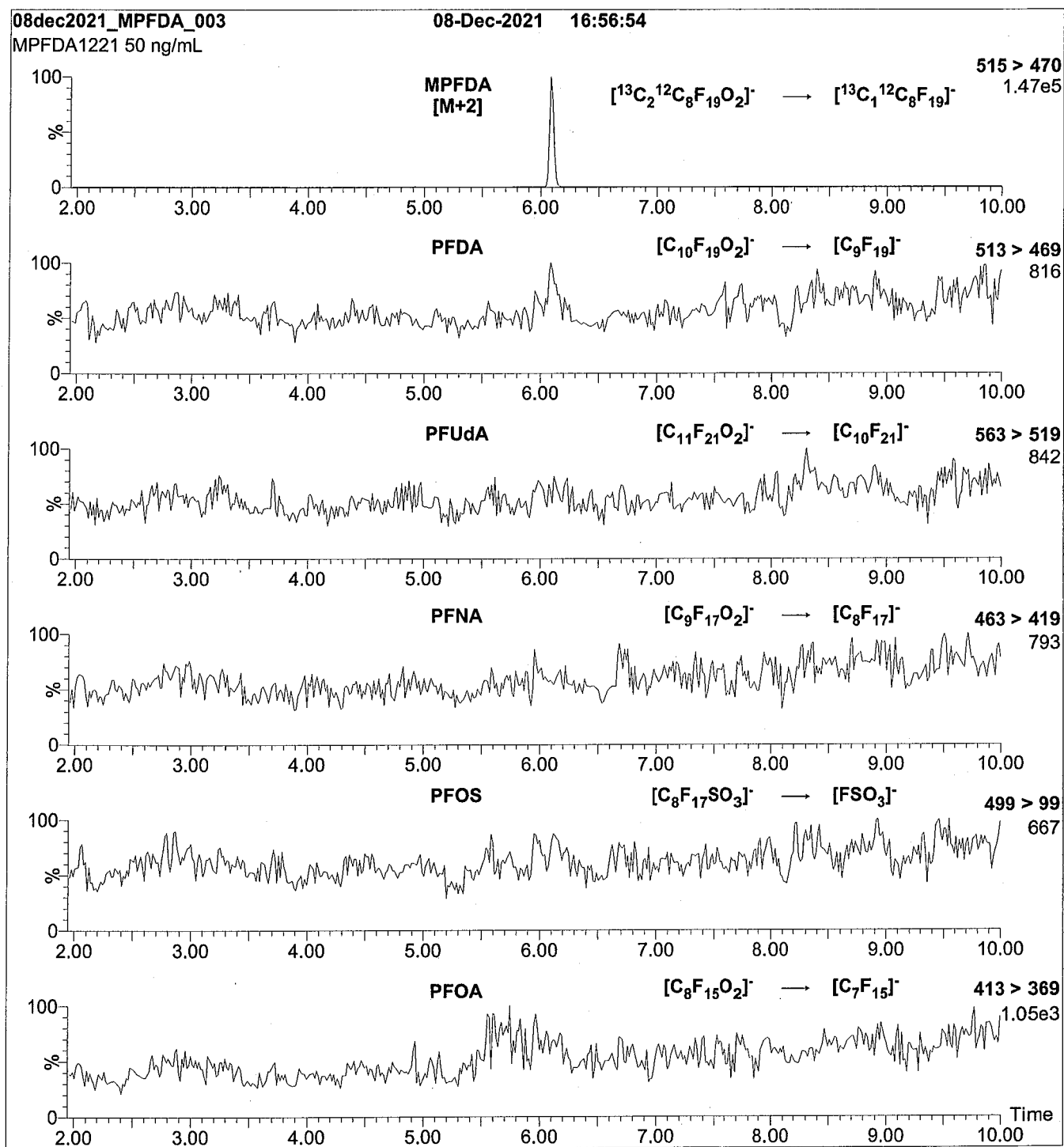
Start: 50% H<sub>2</sub>O / 50% (80:20 MeOH:ACN)  
(both with 10 mM NH<sub>4</sub>OAc buffer)  
Ramp to 90% organic over 9 min and hold for  
1 min before returning to initial conditions in 0.75 min.  
Time: 12 min

Flow: 300  $\mu$ 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 ( $^{\circ}$ 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  $\mu$ L/min**MS Parameters:**

Collision Gas (mbar) = 3.39e-3

Collision Energy (eV) = 10

# Analytical Standard Record

**22A0120**

Description:	PFAS - IIS MPFDA 50ug/mL	Expires:	12/08/2026
Standard Type:	Analyte Spike	Prepared:	12/08/2021
Solvent:	MeOH	Prepared By:	Dipti Gokal
Final Volume (mls):	1.2	Department:	PFAS
Vials:	1	Last Edit:	01/20/2022 15:49 by HGH

<b>Analyte</b>	<b>Parent</b>	<b>CAS Number</b>	<b>Concentration</b>	<b>Units</b>
13C2-PFDA		13C2-PFDA	50	ug/mL

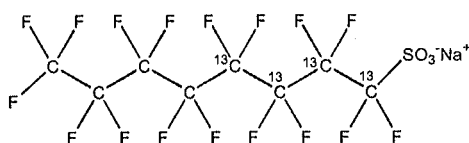


# WELLINGTON LABORATORIES

## CERTIFICATE OF ANALYSIS DOCUMENTATION

**PRODUCT CODE:** MPFOS **LOT NUMBER:** MPFOS0821  
**COMPOUND:** Sodium perfluoro-1-(1,2,3,4-<sup>13</sup>C<sub>4</sub>)octanesulfonate

**STRUCTURE:** **CAS #:** 960315-53-1



**MOLECULAR FORMULA:** <sup>13</sup>C<sub>4</sub><sup>12</sup>C<sub>4</sub>F<sub>17</sub>SO<sub>3</sub>Na **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% <sup>13</sup>C  
**LAST TESTED:** (mm/dd/yyyy) 08/18/2021 (1,2,3,4-<sup>13</sup>C<sub>4</sub>)  
**EXPIRY DATE:** (mm/dd/yyyy) 08/18/2026  
**RECOMMENDED STORAGE:** Store ampoule in a cool, dark place

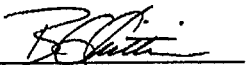
### DOCUMENTATION/ DATA ATTACHED:

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-(<sup>13</sup>C<sub>3</sub>)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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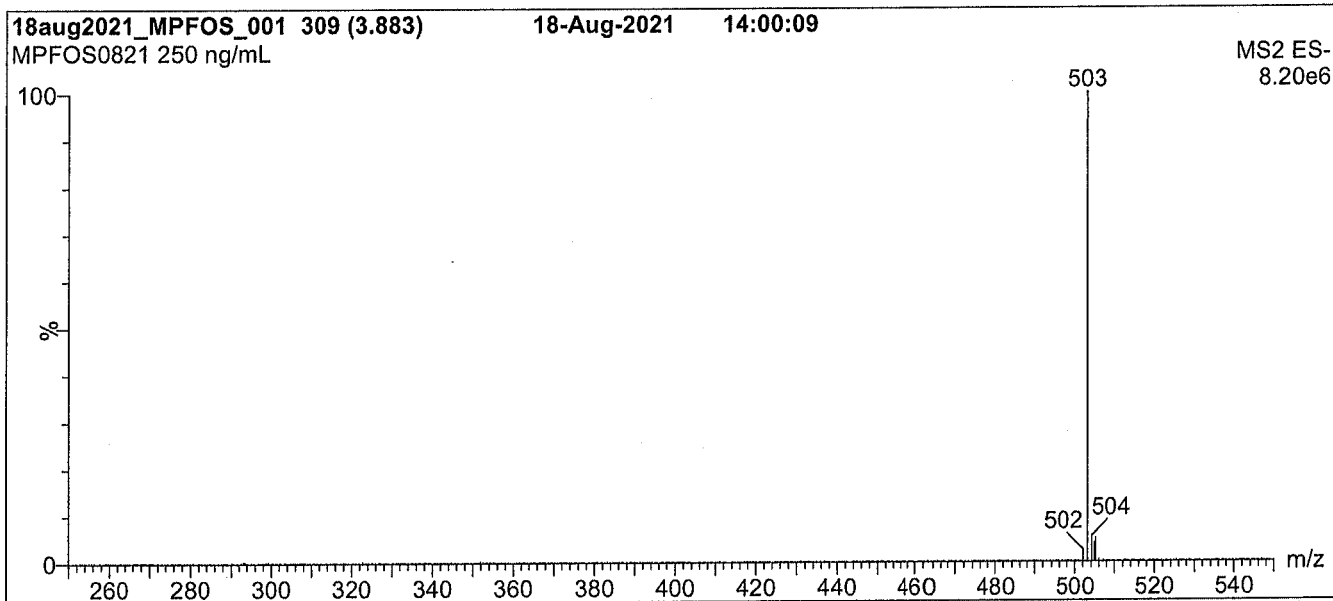
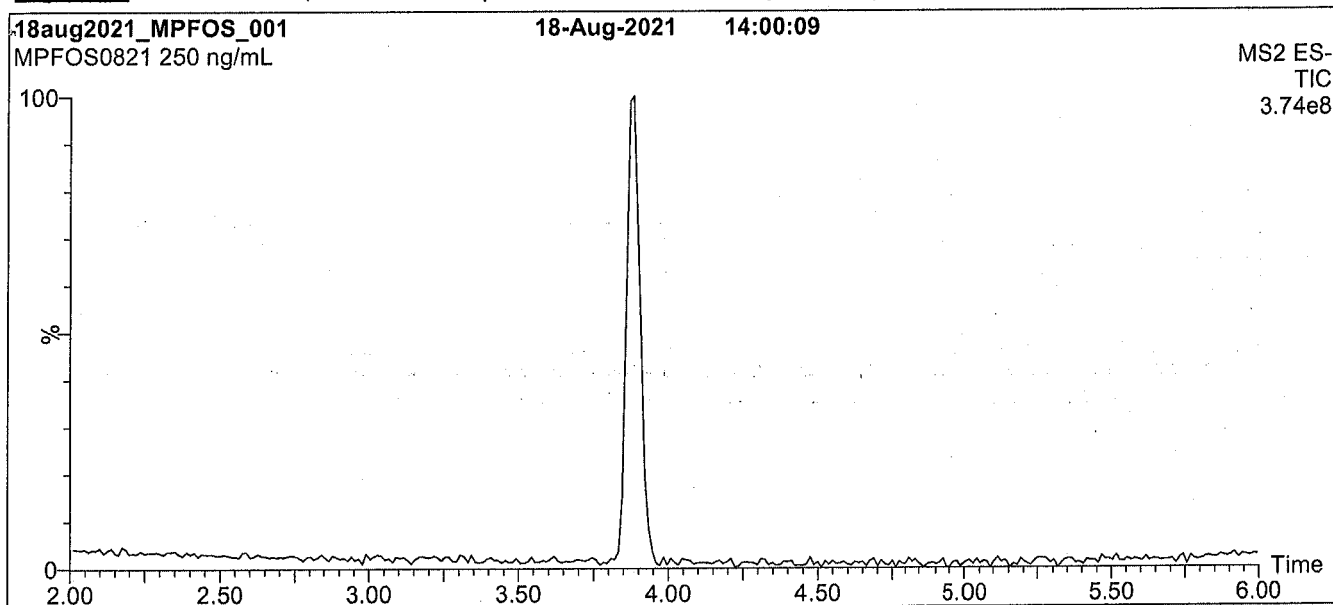
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**Figure 1: MPFOS; LC/MS Data (Full Scan and Mass Spectrum)****Conditions for Figure 1:**

Waters Acquity Ultra Performance LC  
Waters Xevo TQ-S micro MS

**Chromatographic Conditions:**

Column: Acquity UPLC BEH Shield RP<sub>18</sub>  
1.7  $\mu$ m, 2.1 x 100 mm

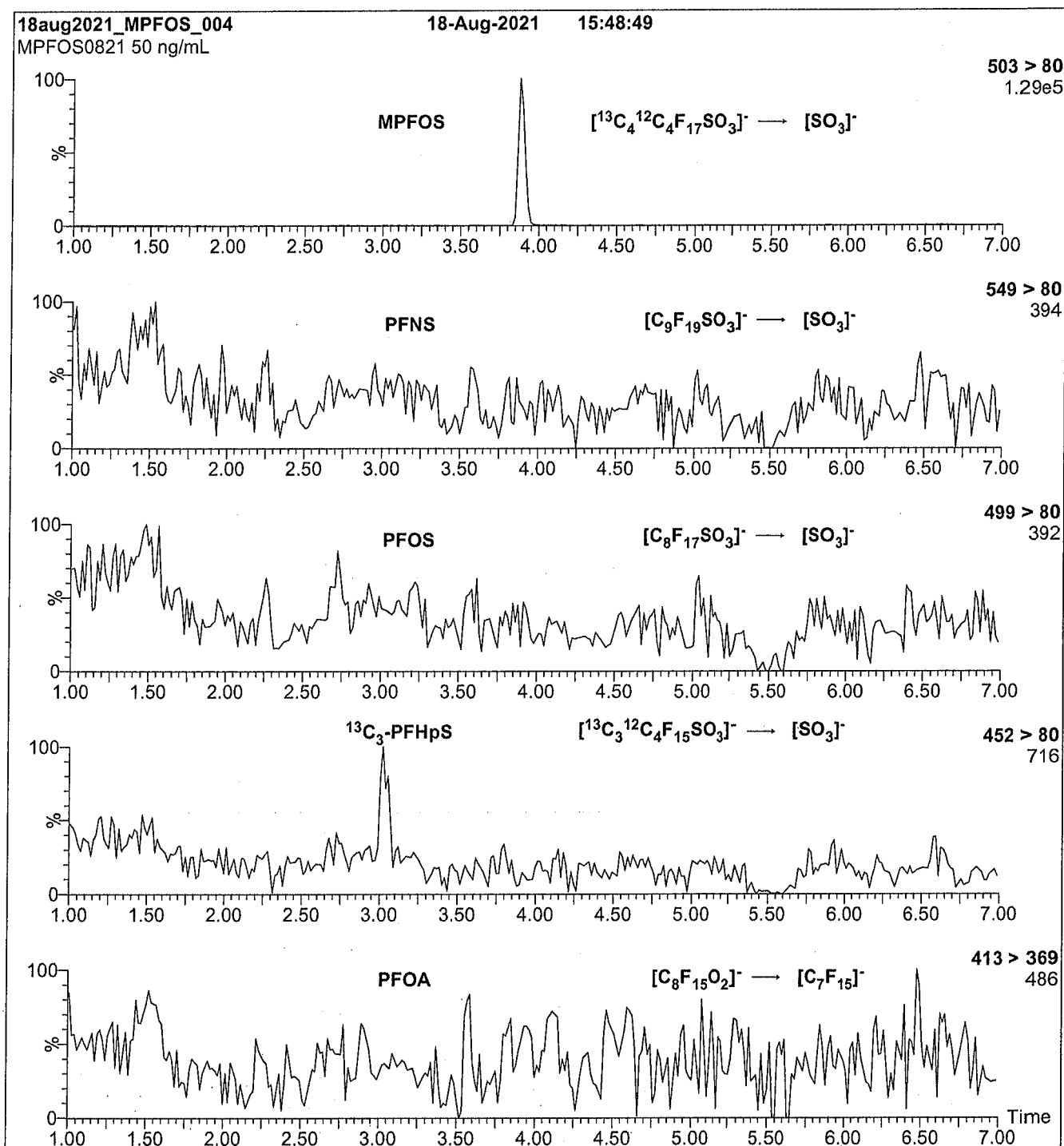
Mobile phase: Gradient  
Start: 40% H<sub>2</sub>O / 60% (80:20 MeOH:ACN)  
(both with 10 mM NH<sub>4</sub>OAc buffer)  
Ramp to 90% organic over 8 min and hold for  
2 min before returning to initial conditions in 0.75 min.  
Time: 12 min

Flow: 300  $\mu$ 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 ( $^{\circ}$ 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	Expires:	08/18/2026
Standard Type:	Analyte Spike	Prepared:	08/18/2021
Solvent:	MeOH	Prepared By:	Dipti Gokal
Final Volume (mls):	1.2	Department:	PFAS
Vials:	1	Last Edit:	01/20/2022 15:49 by HGH

<b>Analyte</b>	<b>Parent</b>	<b>CAS Number</b>	<b>Concentration</b>	<b>Units</b>
13C4-PFOS		13C4-PFOS	50	ug/mL

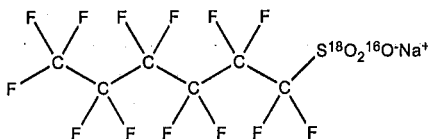


# WELLINGTON LABORATORIES

## CERTIFICATE OF ANALYSIS DOCUMENTATION

**PRODUCT CODE:** MPFHxS **LOT NUMBER:** MPFHxS1021  
**COMPOUND:** Sodium perfluoro-1-hexane(<sup>18</sup>O<sub>2</sub>)sulfonate

**STRUCTURE:** **CAS #:** 1585941-14-5



**MOLECULAR FORMULA:** C<sub>6</sub>F<sub>13</sub>S<sup>18</sup>O<sub>2</sub><sup>16</sup>ONa **MOLECULAR WEIGHT:** 426.10  
**CONCENTRATION:** 50.0 ± 2.5 µg/mL (Na salt) **SOLVENT(S):** Methanol  
 47.4 ± 2.4 µg/mL (MPFHxS acid)  
 47.3 ± 2.4 µg/mL (MPFHxS anion)  
**CHEMICAL PURITY:** >98% **ISOTOPIC PURITY:** >94% (<sup>18</sup>O<sub>2</sub>)  
**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:


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 (C<sub>6</sub>F<sub>13</sub>S<sup>18</sup>O<sub>2</sub><sup>16</sup>O) has been observed to be up to 10% lower than for PFHxS (C<sub>6</sub>F<sub>13</sub>S<sup>16</sup>O<sub>3</sub>) when both compounds are injected together. This difference may vary between instruments.
- Contains ~0.6% of sodium perfluoro-1-octane(<sup>18</sup>O<sub>2</sub>)sulfonate (<sup>18</sup>O<sub>2</sub>-PFOS) and ~0.3% of sodium perfluoro-1-heptane(<sup>18</sup>O<sub>2</sub>)sulfonate (<sup>18</sup>O<sub>2</sub>-PFHpS).
- Due to the isotopic purity of the starting material (<sup>18</sup>O<sub>2</sub> >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:**

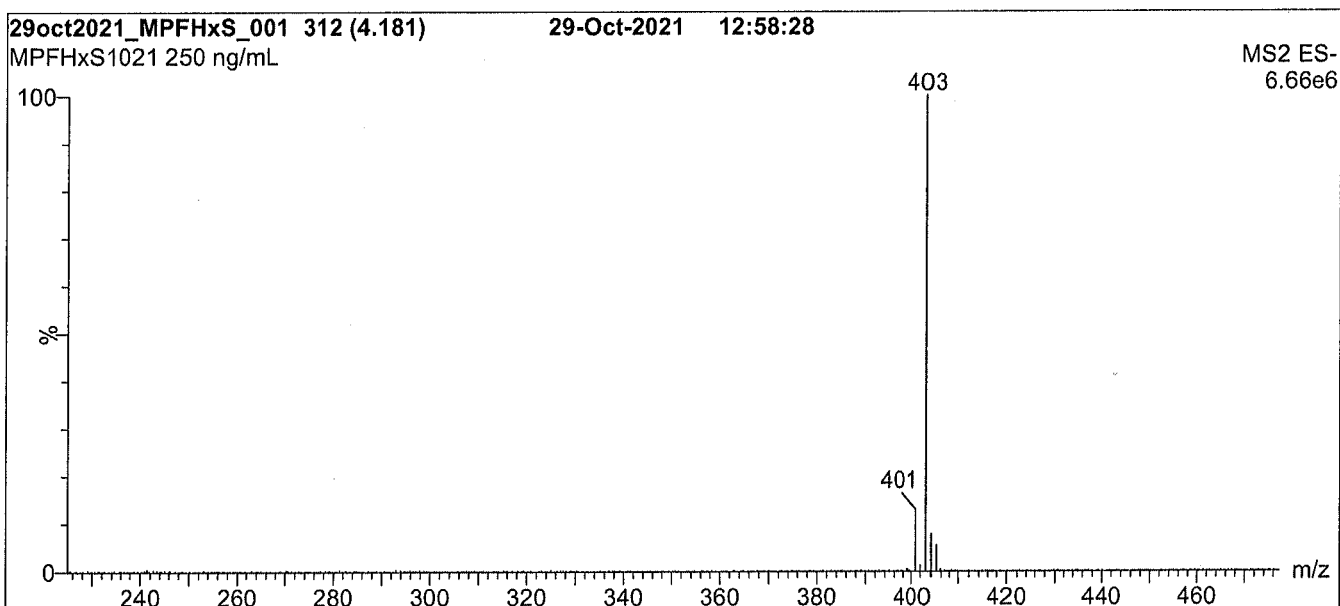
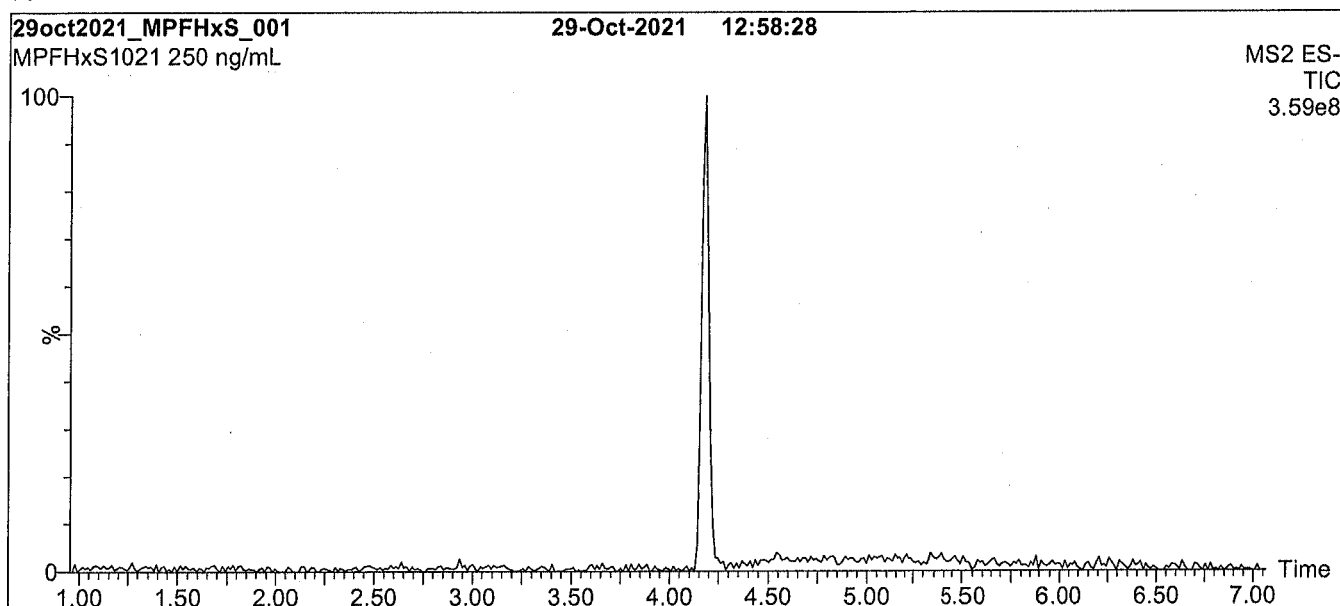
At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

**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](http://www.well-labs.com) or contact us directly at [info@well-labs.com](mailto: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 RP<sub>18</sub>  
1.7  $\mu$ m, 2.1 x 100 mm

Mobile phase: Gradient

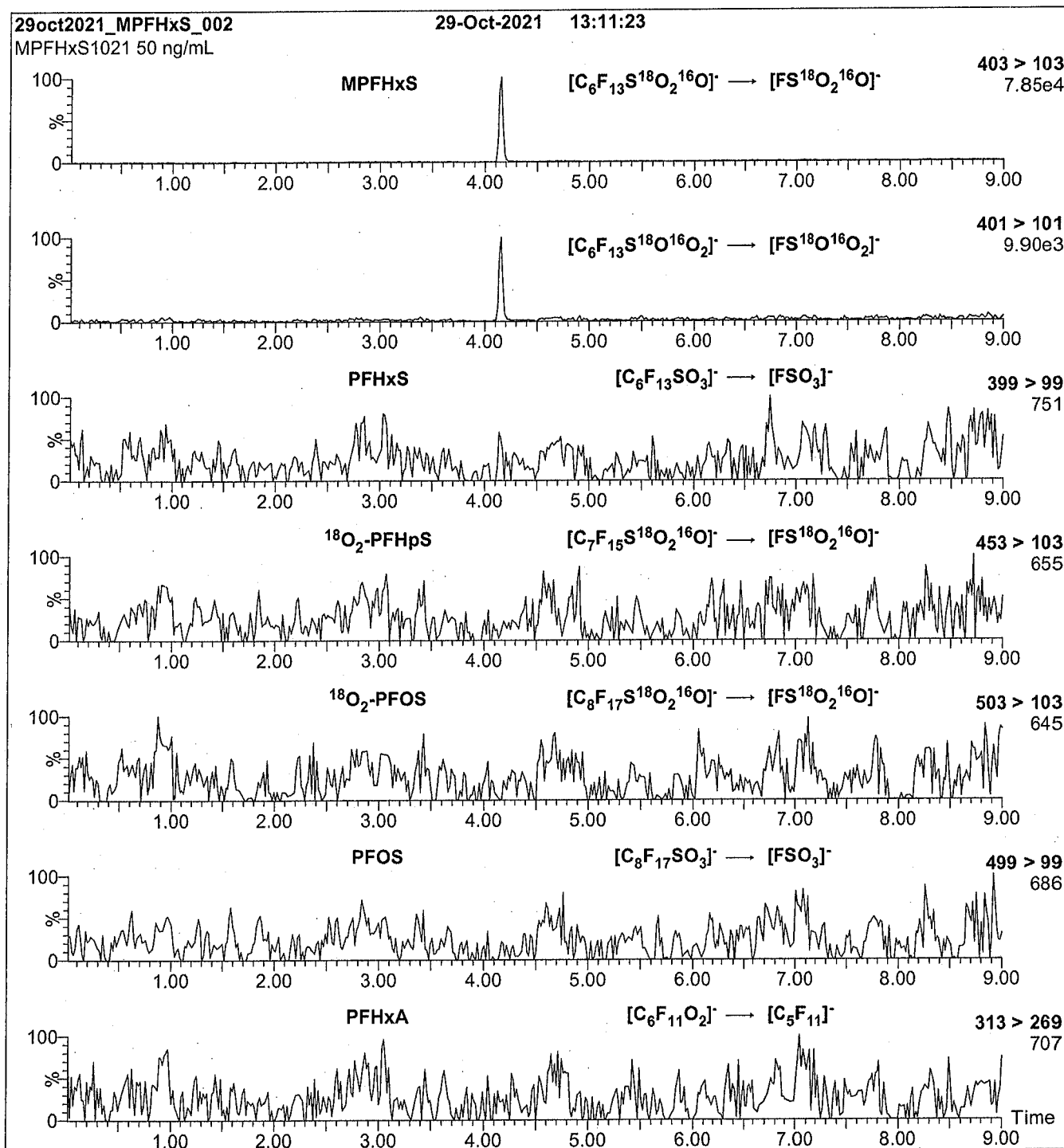
Start: 50% H<sub>2</sub>O / 50% (80:20 MeOH:ACN)  
(both with 10 mM NH<sub>4</sub>OAc buffer)  
Ramp to 90% organic over 9 min and hold for  
1 min before returning to initial conditions in 0.75 min.  
Time: 12 min

Flow: 300  $\mu$ 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  $\mu$ L/min**MS Parameters:**

Collision Gas (mbar) = 3.16e-3

Collision Energy (eV) = 32

# Analytical Standard Record

**22A0122**

Description:	PFAS - IIS MPFHxS 50ug/mL	Expires:	10/29/2026
Standard Type:	Analyte Spike	Prepared:	10/29/2021
Solvent:	MeOH	Prepared By:	Dipti Gokal
Final Volume (mls):	1.2	Department:	PFAS
Vials:	1	Last Edit:	01/20/2022 15:49 by HGH

<b>Analyte</b>	<b>Parent</b>	<b>CAS Number</b>	<b>Concentration</b>	<b>Units</b>
1802-PFHXS		1802-PFHXS	50	ug/mL



# Analytical Standard Record

**22A0122**

Description:	PFAS - IIS MPFHxS 50ug/mL	Expires:	10/29/2026
Standard Type:	Analyte Spike	Prepared:	10/29/2021
Solvent:	MeOH	Prepared By:	Dipti Gokal
Final Volume (mls):	1.2	Department:	PFAS
Vials:	1	Last Edit:	01/20/2022 15:49 by HGH

<b>Analyte</b>	<b>Parent</b>	<b>CAS Number</b>	<b>Concentration</b>	<b>Units</b>
1802-PFHXS		1802-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 (mL):	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	(mL)
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 (mL):	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	(mL)
22A0116	PFAS - IIS M3PFBA 50ug/mL	08/19/2021	Wellington Laboratories	M3PFBA0721	08/19/2026	01/20/2022 15:48 by HGH	1.2
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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 (mL):	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

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Standard	Description	Prepared	Prepared By	Lot Nbr	Expires	Last Edit	(mL)
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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

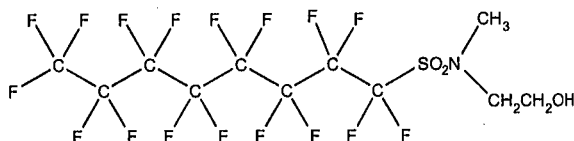


# WELLINGTON LABORATORIES

## 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<sub>11</sub>H<sub>8</sub>F<sub>17</sub>NO<sub>3</sub>S **MOLECULAR WEIGHT:** 557.22  
**CONCENTRATION:** 50.0 ± 2.5 µg/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

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**HANDLING:**

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**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.

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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:**

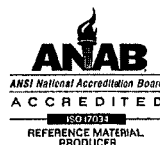
Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

**LIMITED WARRANTY:**

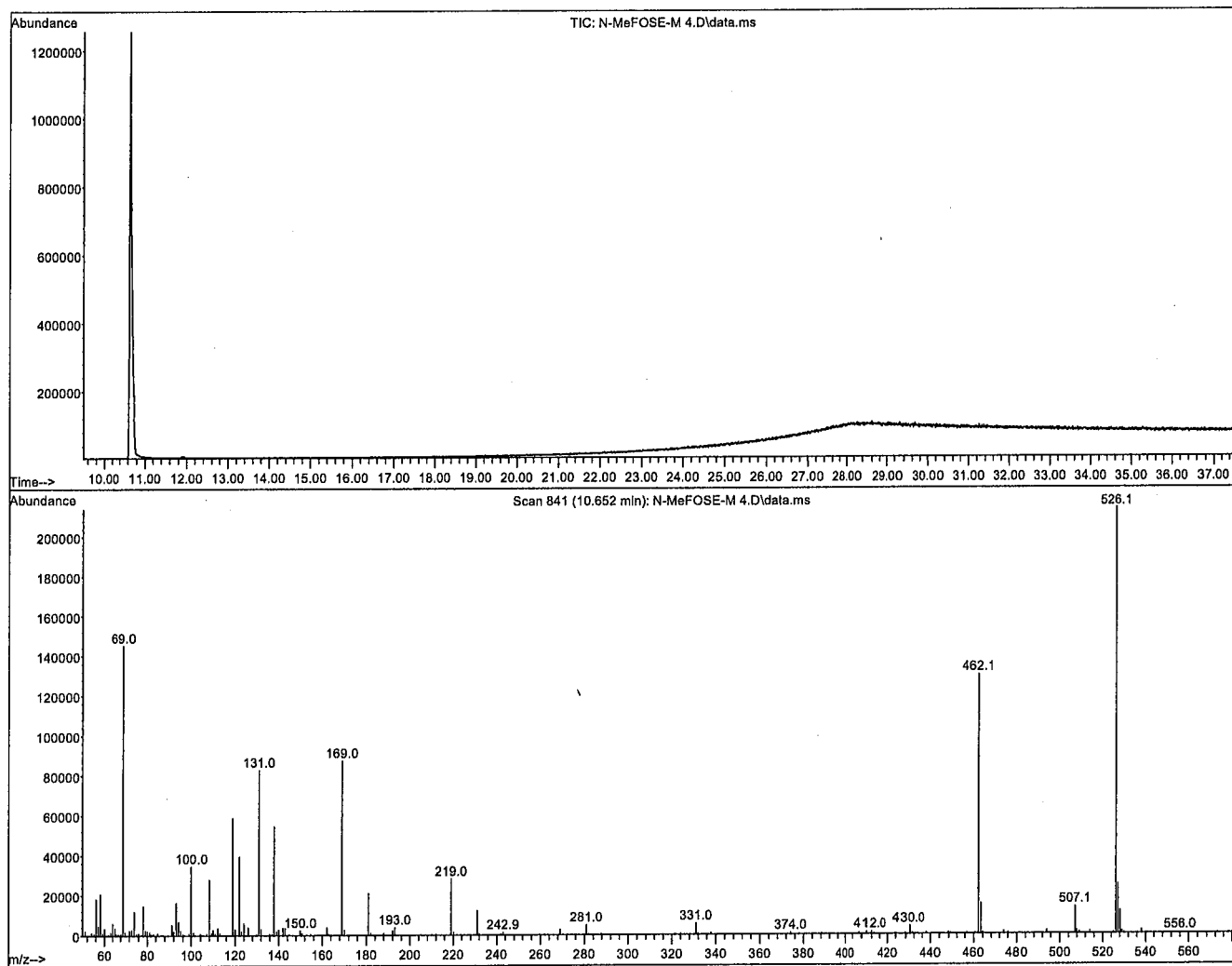
At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

**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).



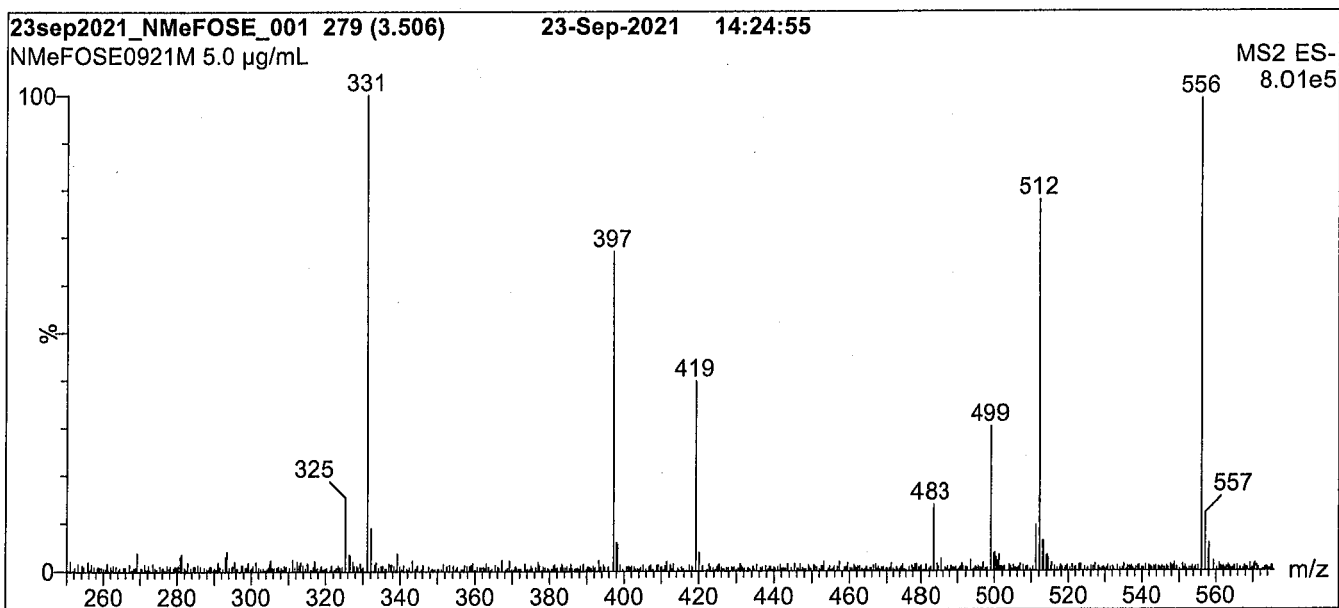
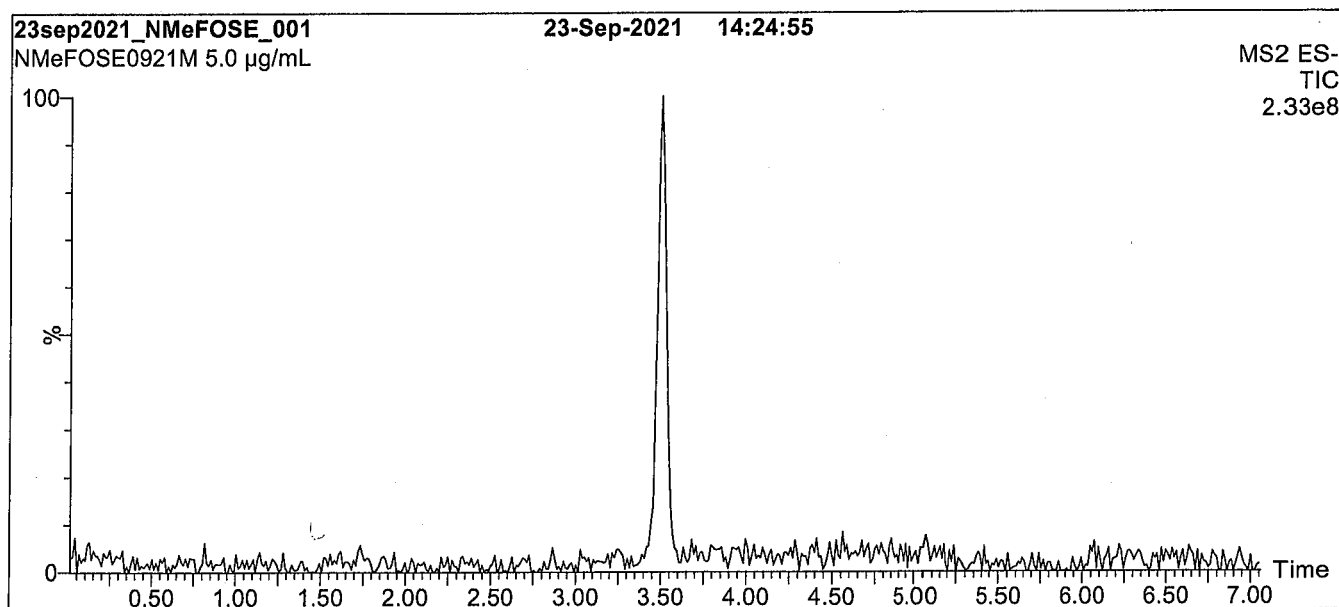
\*\*For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at [www.well-labs.com](http://www.well-labs.com) or contact us directly at [info@well-labs.com](mailto:info@well-labs.com)\*\*

**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  $\mu$ 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 RP<sub>18</sub>  
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient

Start: 30% H<sub>2</sub>O / 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)

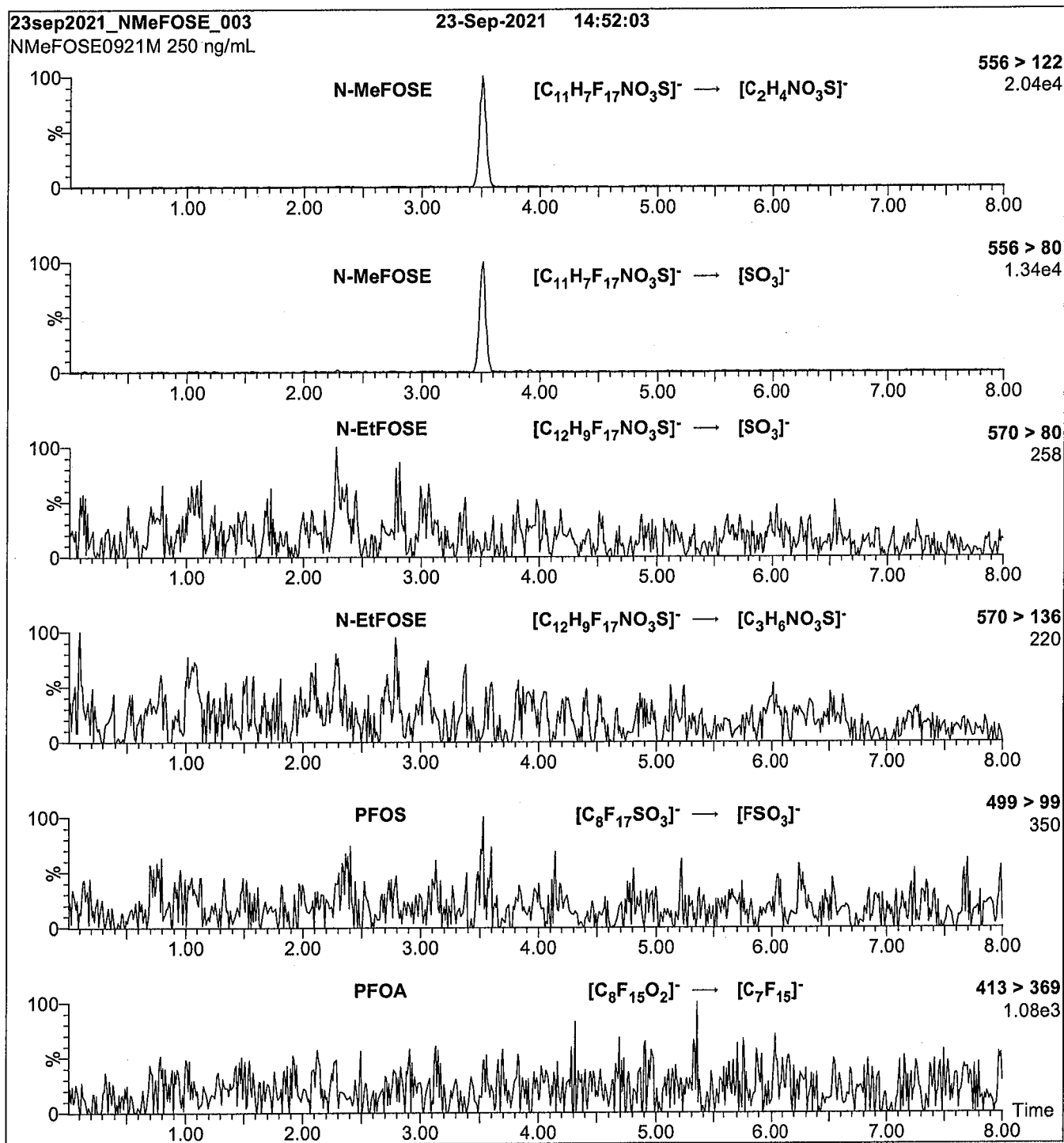
Capillary Voltage (kV) = 2.00

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  $\mu$ L/min**MS Parameters:**

Collision Gas (mbar) = 3.14e-3

Collision Energy (eV) = 36

0

1

# 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



**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:**

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.

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**LIMITED WARRANTY:**

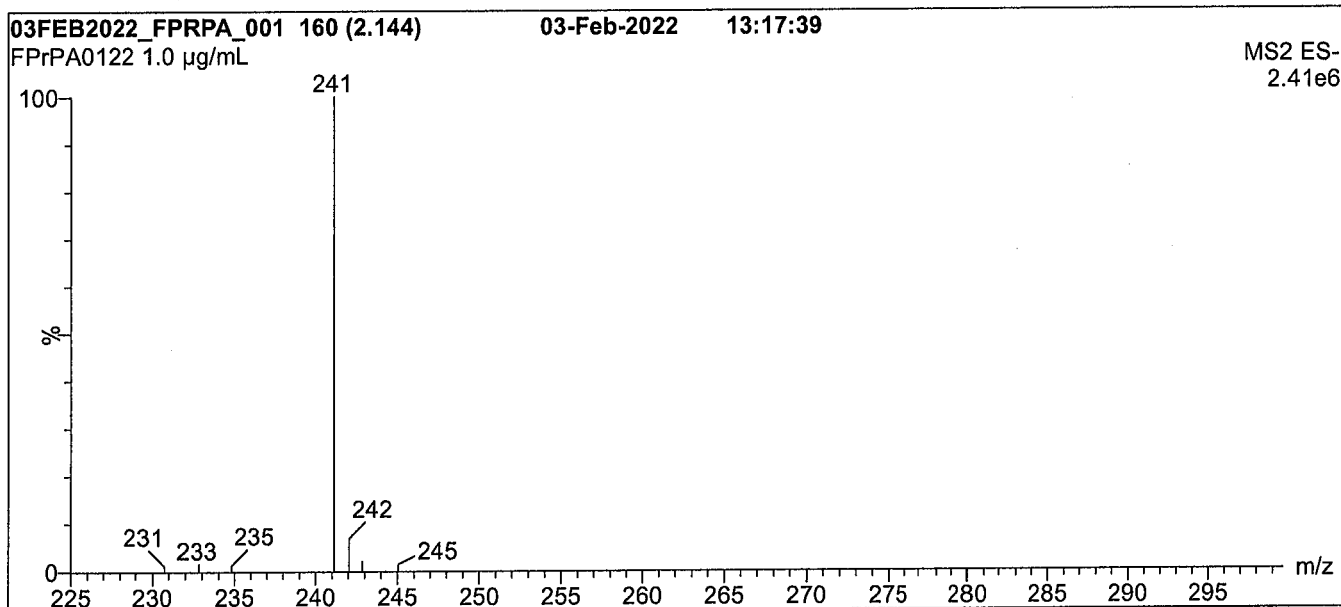
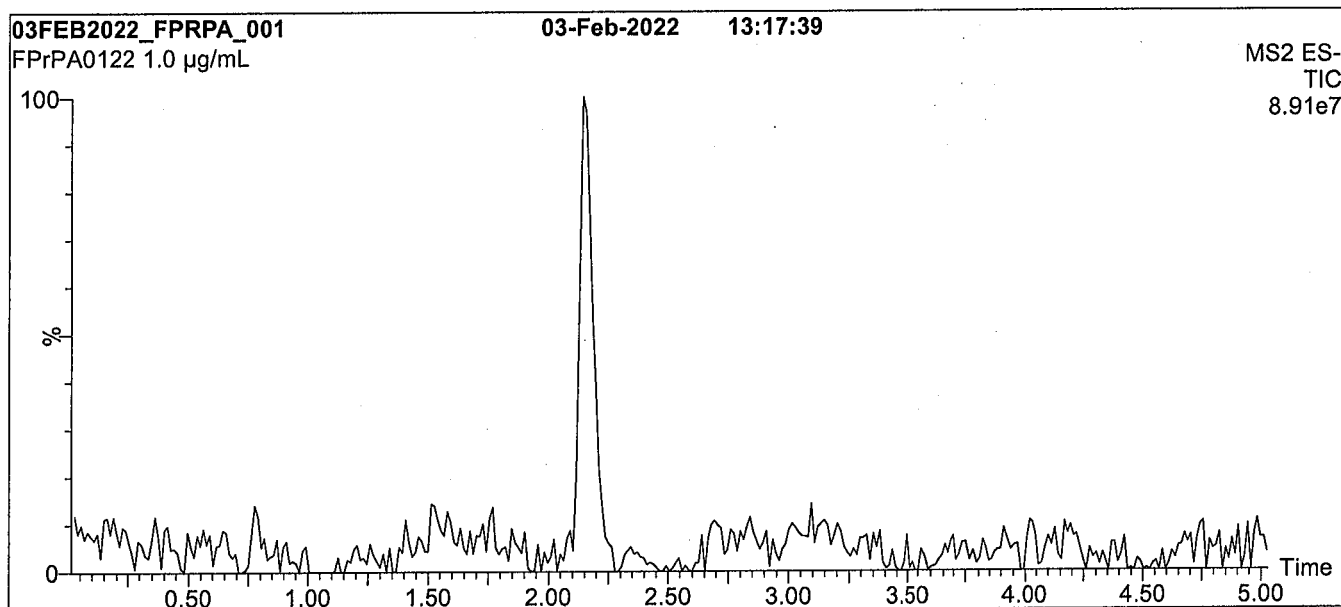
At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

**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).



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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 RP<sub>18</sub>  
1.7 µm, 2.1 x 100 mm

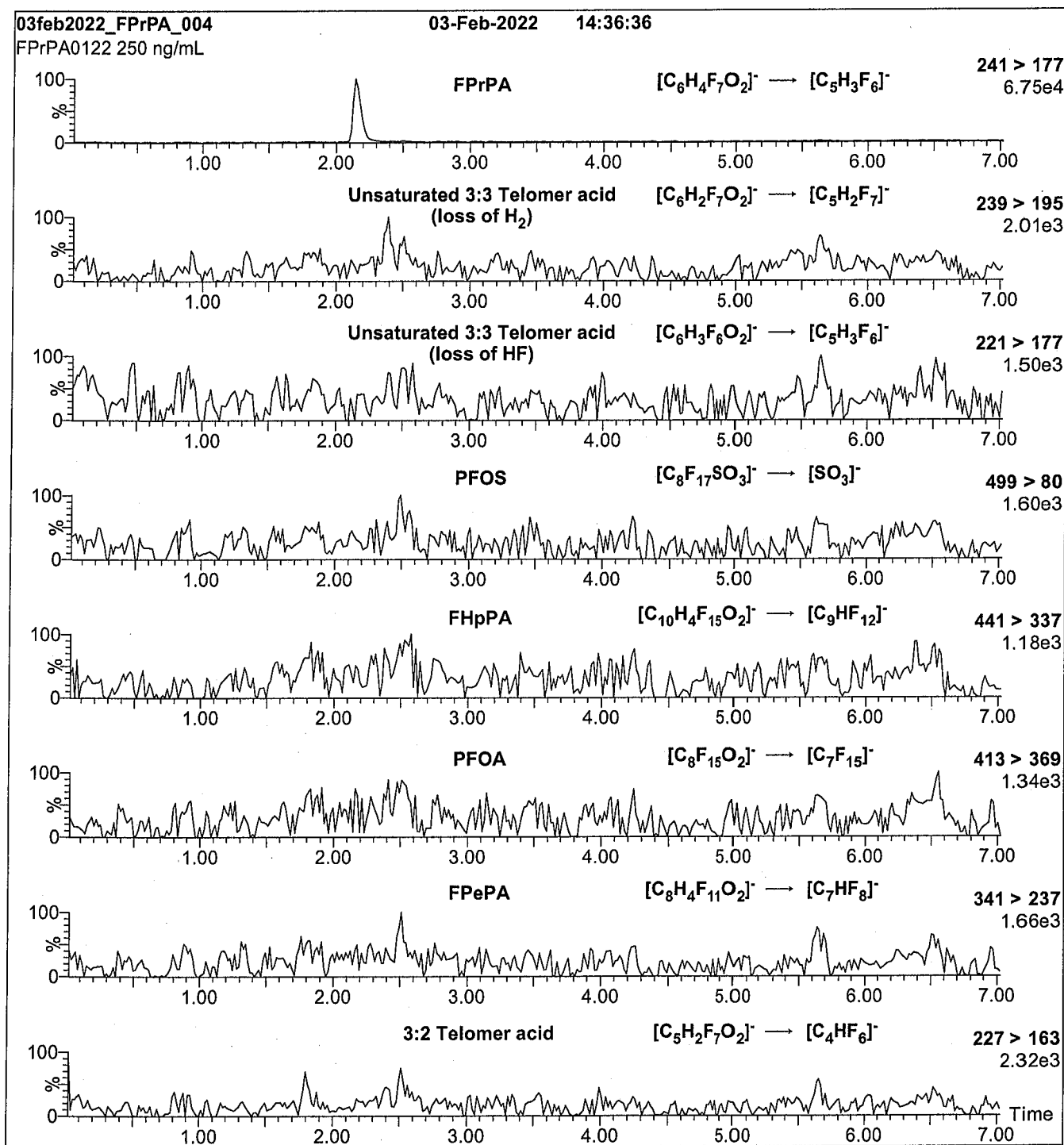
Mobile phase: Gradient  
Start: 60% H<sub>2</sub>O / 40% (80:20 MeOH:ACN)  
(both with 10 mM NH<sub>4</sub>OAc buffer)  
Ramp to 90% organic over 8 min and hold for 2 min  
before returning to initial conditions in 0.75 min.  
Time: 12 min

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)

**MS Parameters:**

Mobile phase: Same as Figure 1

Collision Gas (mbar) = 3.33e-3

Flow: 300  $\mu$ L/min

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



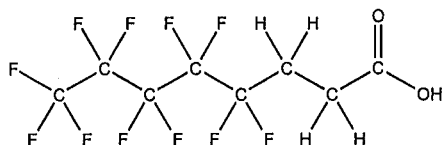


# WELLINGTON LABORATORIES

## CERTIFICATE OF ANALYSIS DOCUMENTATION

**PRODUCT CODE:** FPePA **LOT NUMBER:** FPePA1221  
**COMPOUND:** 3-Perfluoropentyl propanoic acid **22C0309**

**STRUCTURE:** **CAS #:** 914637-49-3



**MOLECULAR FORMULA:**  $C_8H_5F_{11}O_2$  **MOLECULAR WEIGHT:** 342.11  
**CONCENTRATION:**  $50.0 \pm 2.5 \mu\text{g/mL}$  **SOLVENT(S):** Methanol  
**CHEMICAL PURITY:** >98%  
**LAST TESTED:** (mm/dd/yyyy) 01/05/2022  
**EXPIRY DATE:** (mm/dd/yyyy) 01/05/2027  
**RECOMMENDED STORAGE:** Refrigerate ampoule

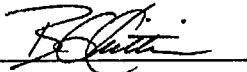
### DOCUMENTATION/ DATA ATTACHED:

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  $^1\text{H}$  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:**

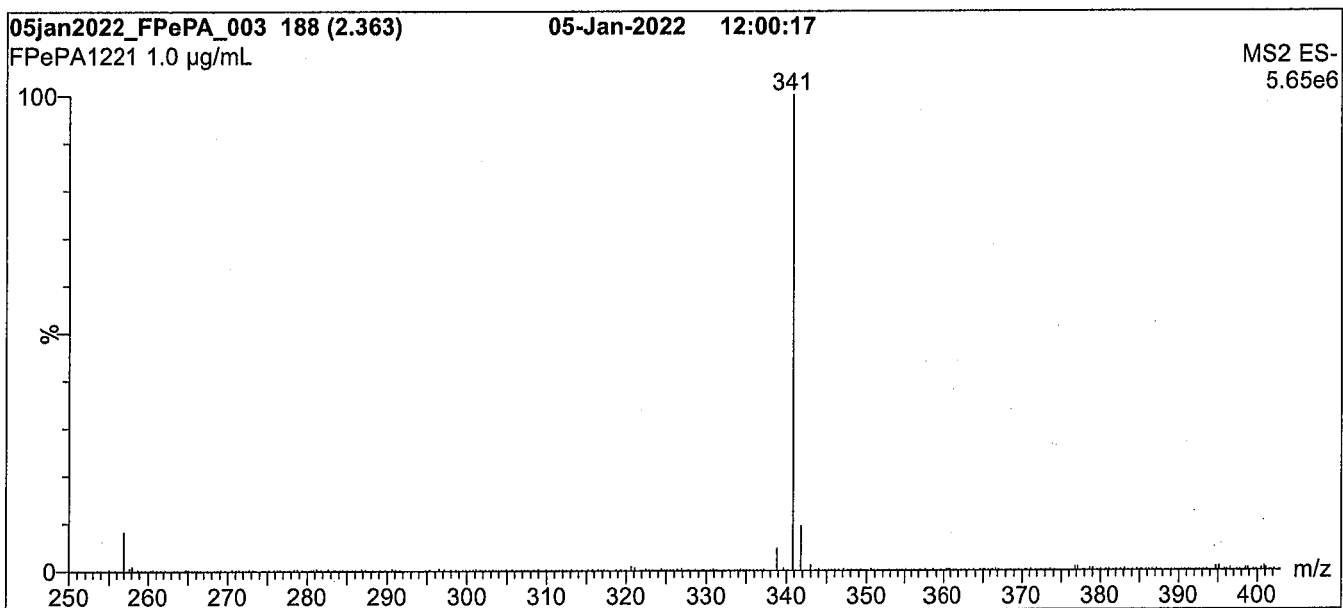
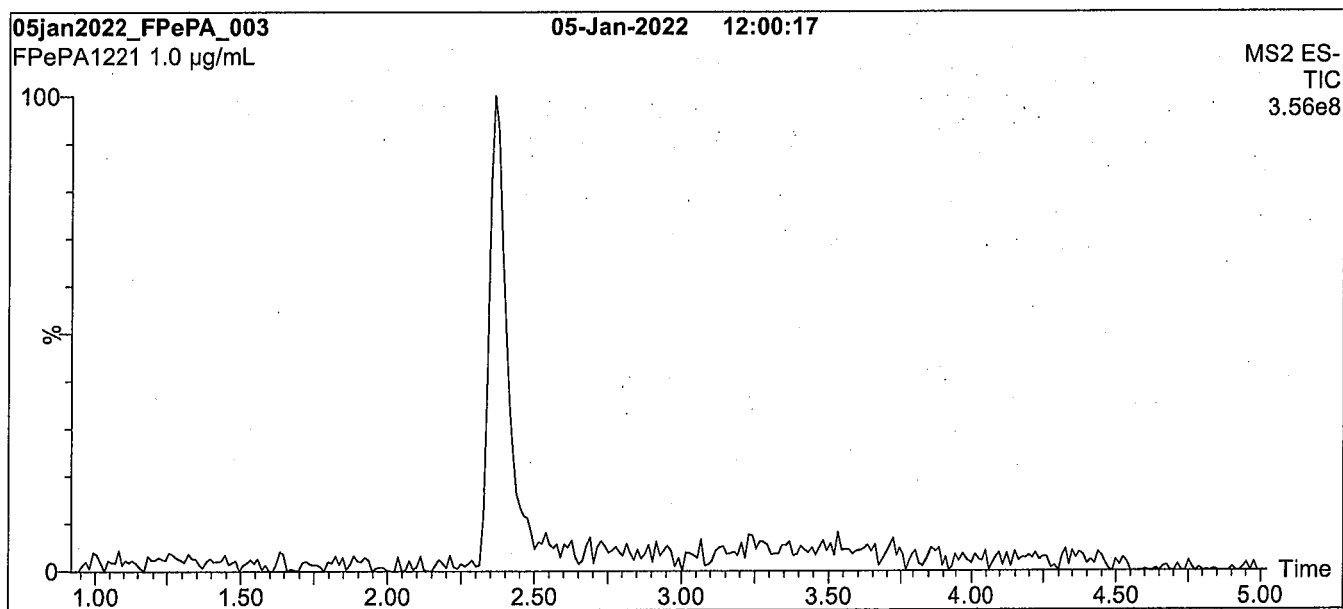
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**Figure 1: FPePA; LC/MS Data (Full Scan and Mass Spectrum)****Conditions for Figure 1:**

Waters Acquity Ultra Performance LC  
 Waters Xevo TQ-S micro MS

**Chromatographic Conditions:**

Column: Acquity UPLC BEH Shield RP<sub>18</sub>  
 1.7 µm, 2.1 x 100 mm

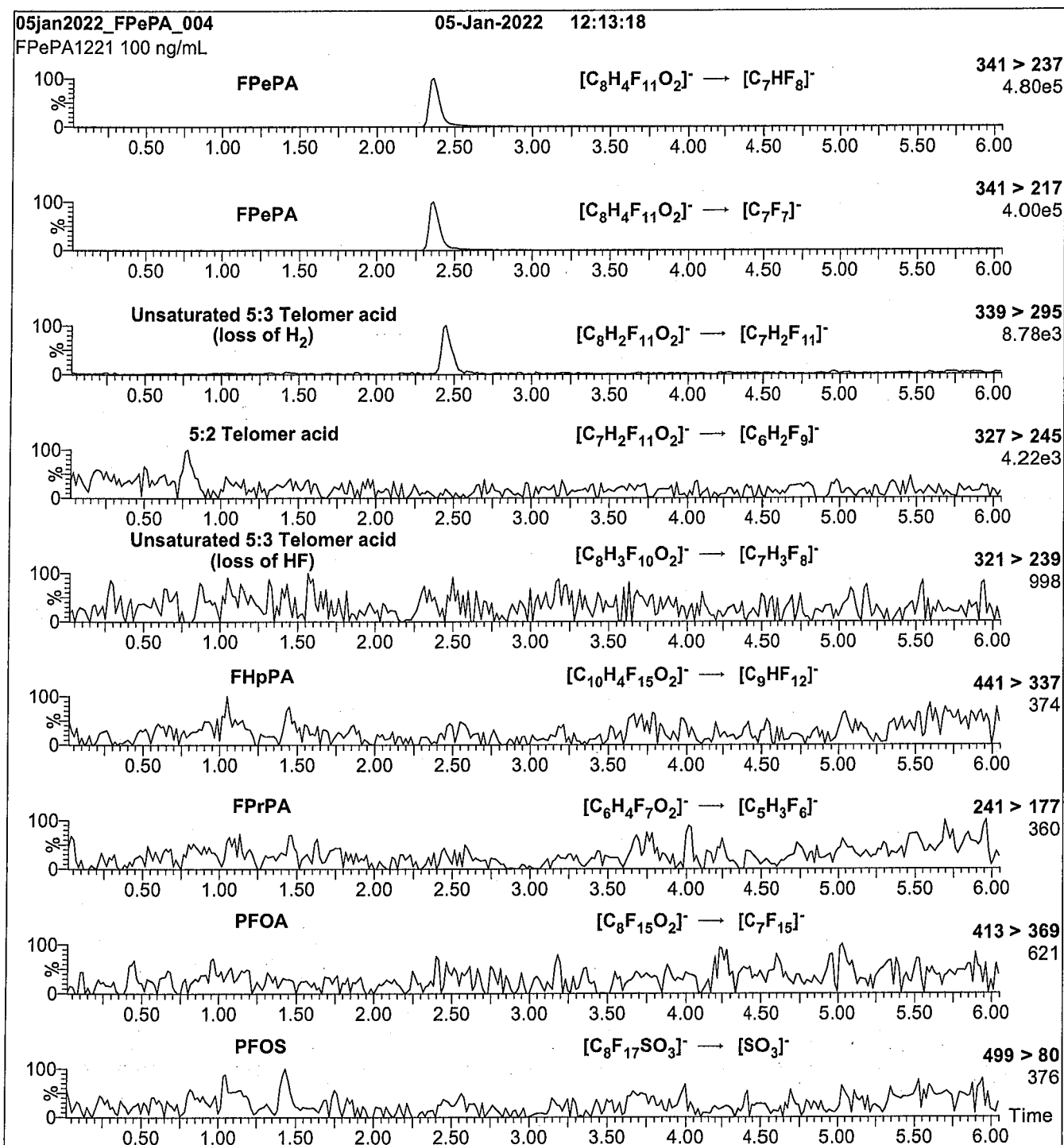
Mobile phase: Gradient  
 Start: 45% H<sub>2</sub>O / 55% (80:20 MeOH:ACN)  
 (both with 10 mM NH<sub>4</sub>OAc buffer)  
 Ramp to 90% organic over 7 min and hold for  
 3 min before returning to initial conditions in 0.75 min.  
 Time: 12 min

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  $\mu$ 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:	PFAS1221)
Vials:	1	Last Edit:	03/15/2022 15:59 by DAG

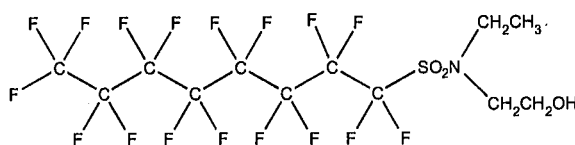
Analyte	Parent	CAS Number	Concentration	Units
5:3FTCA		914637-49-3	50	ug/mL



# WELLINGTON LABORATORIES

## 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<sub>12</sub>H<sub>10</sub>F<sub>17</sub>NO<sub>3</sub>S **MOLECULAR WEIGHT:** 571.25  
**CONCENTRATION:** 50.0 ± 2.5 µg/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:**

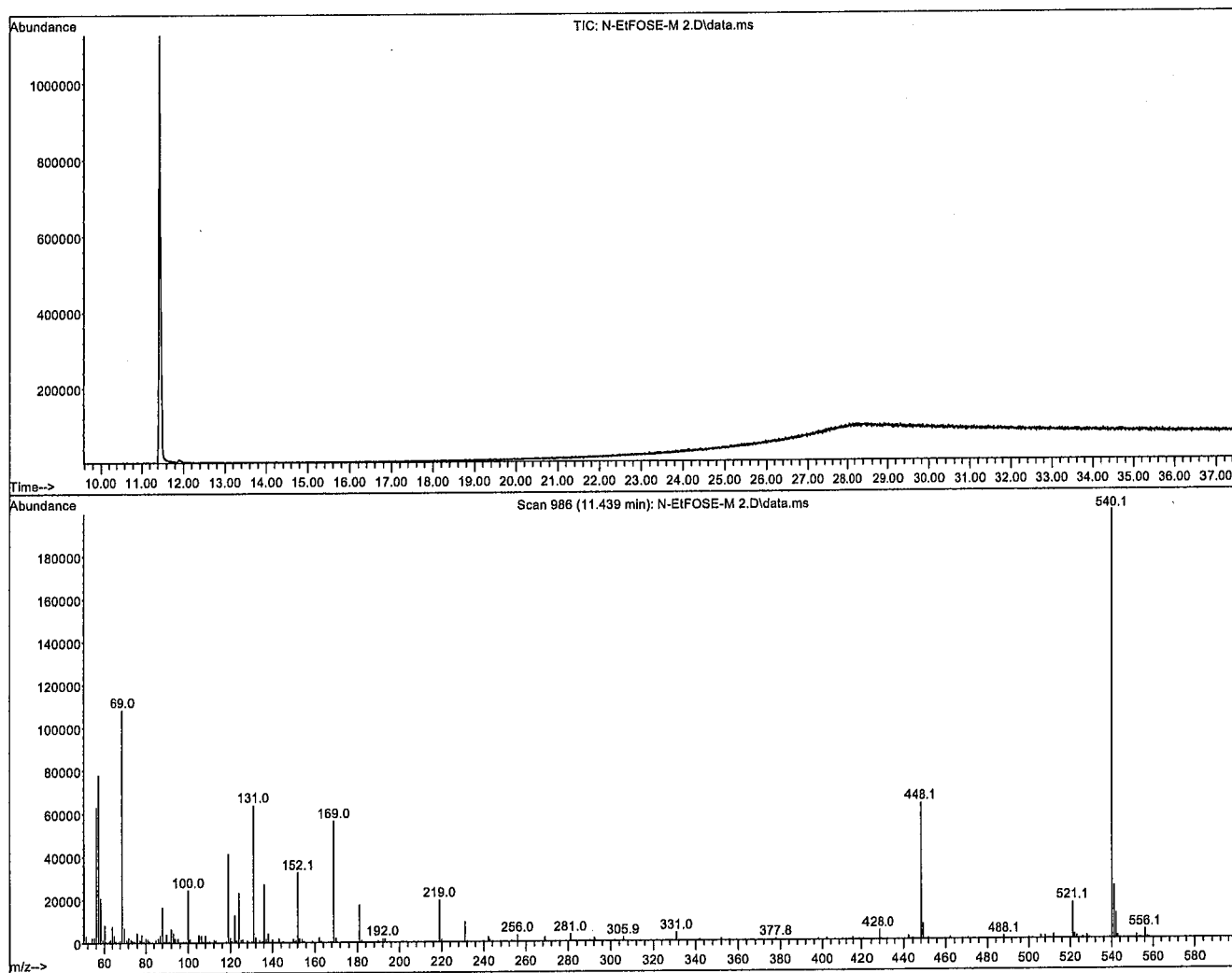
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**Figure 1: N-EtFOSE-M; HRGC/LRMS Data (Full Scan and Mass Spectrum)****Conditions for Figure 1:**

Agilent 7890A HRGC  
 Agilent 5975C MSD

**Chromatographic Conditions:**

Column: 30 m DB-5 (0.25 mm id, 0.25  $\mu$ m film thickness) Agilent J&W

Flow: Constant at 1 mL/min

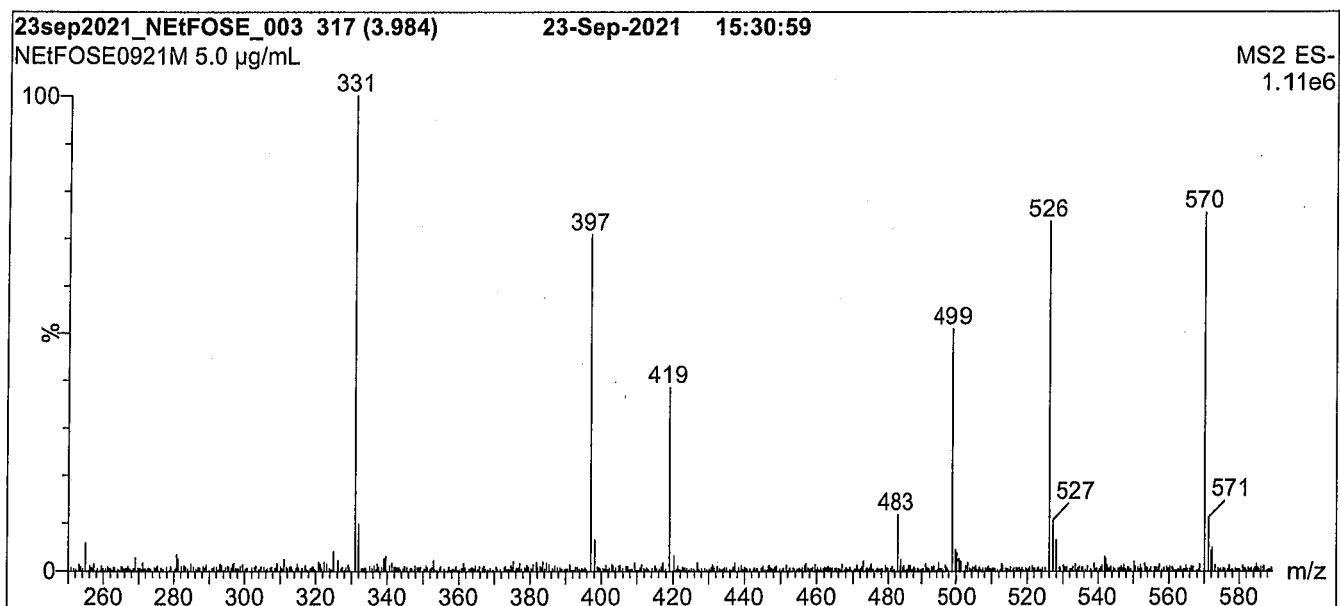
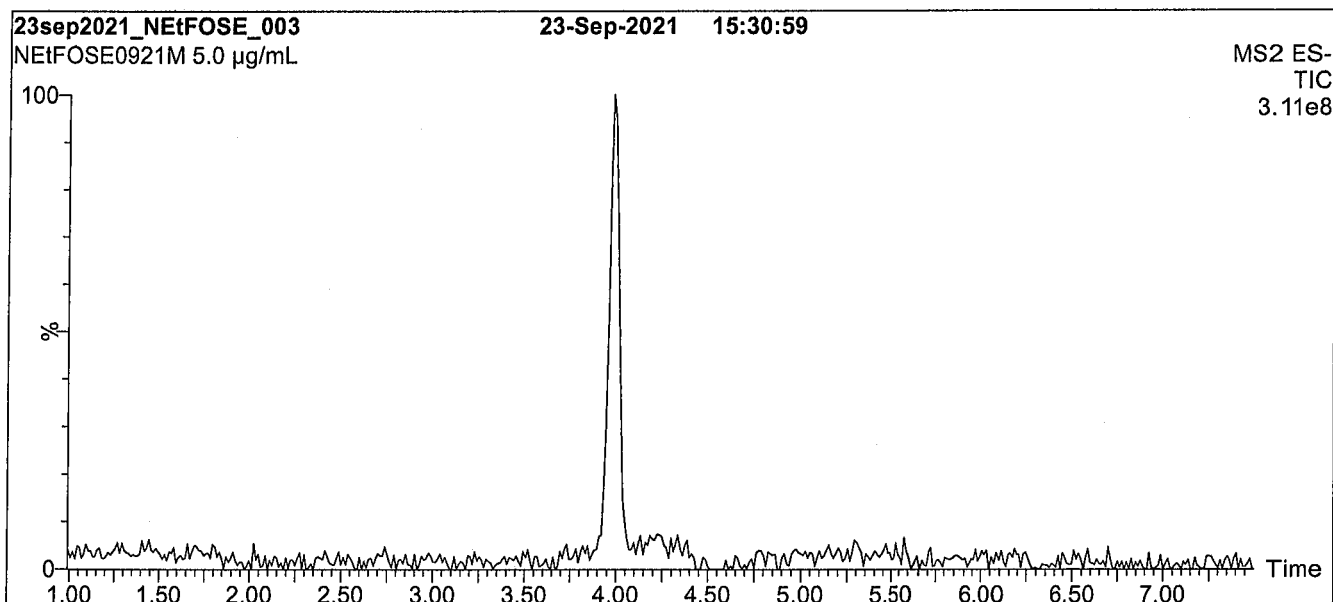
Injector: 250°C (Splitless Injection)

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 RP<sub>18</sub>  
1.7 µm, 2.1 x 100 mm

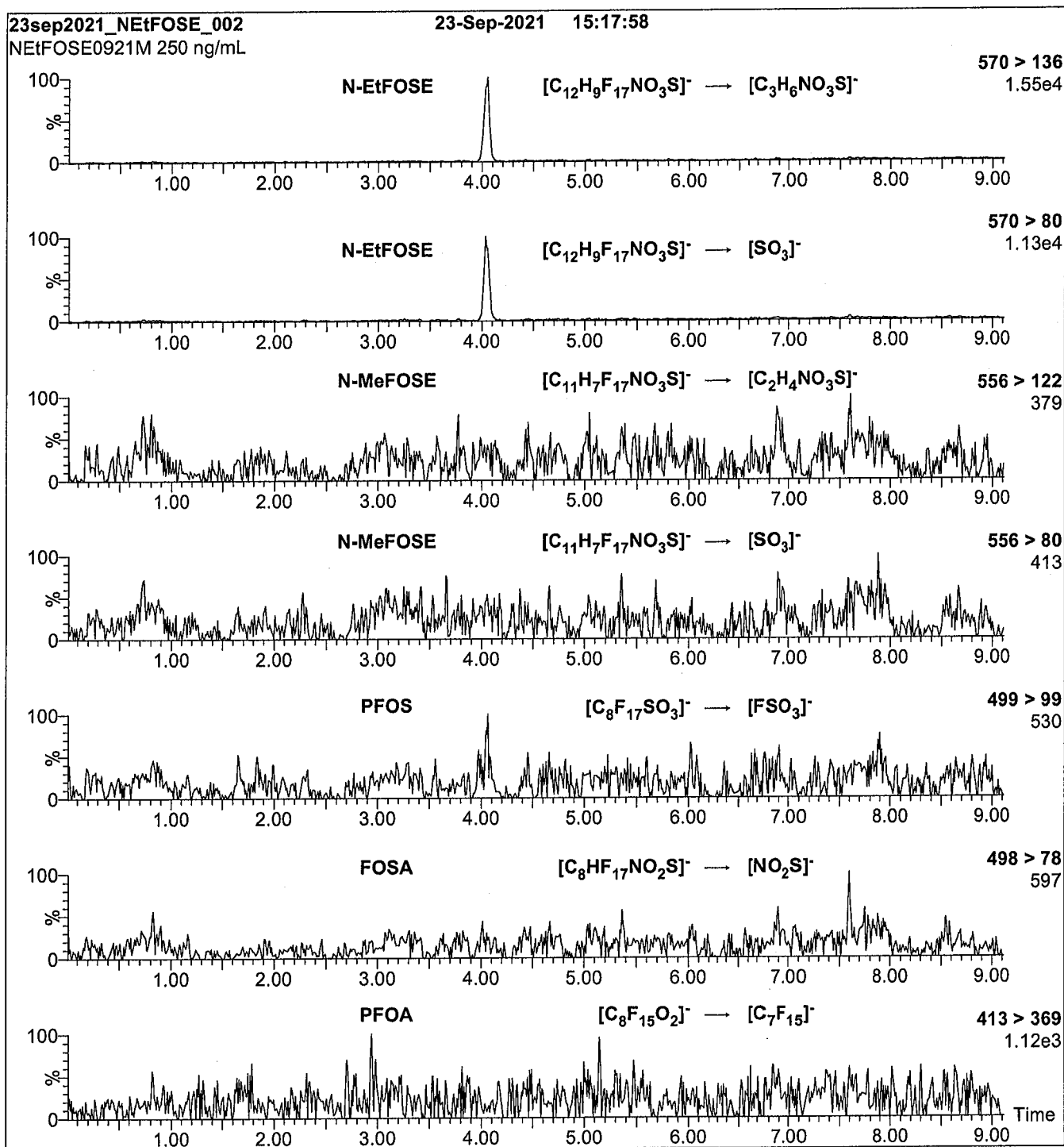
Mobile phase: Gradient  
Start: 30% H<sub>2</sub>O / 70% MeOH  
Ramp to 90% organic over 8 min and hold for  
1.5 min before returning to initial conditions in 1 min.  
Time: 12 min

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  $\mu$ L/min**MS Parameters:**

Collision Gas (mbar) = 3.14e-3

Collision Energy (eV) = 32



# Analytical Standard Record

**22C0310**

Description:	PFAS - SAS NtFOSE 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:	PFAS (Lot# PFAS0921M)
Vials:	1	Last Edit:	03/15/2022 15:59 by DAG

Analyte	Parent	CAS Number	Concentration	Units
NtFOSE		1691-99-2	50	ug/mL



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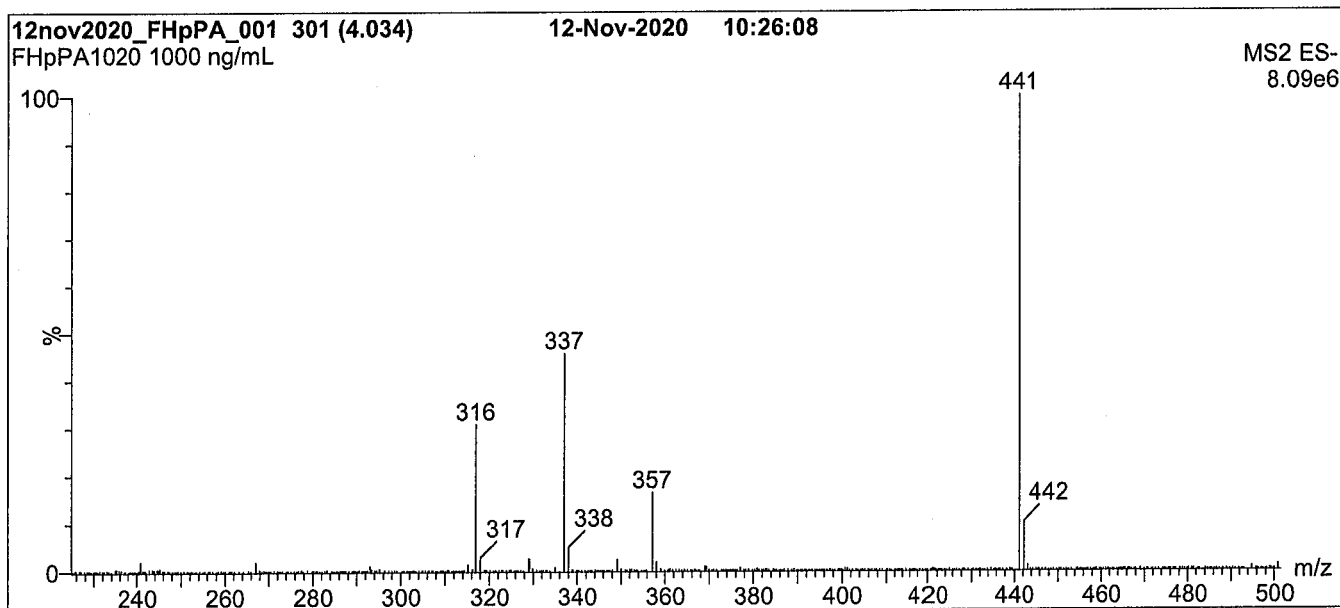
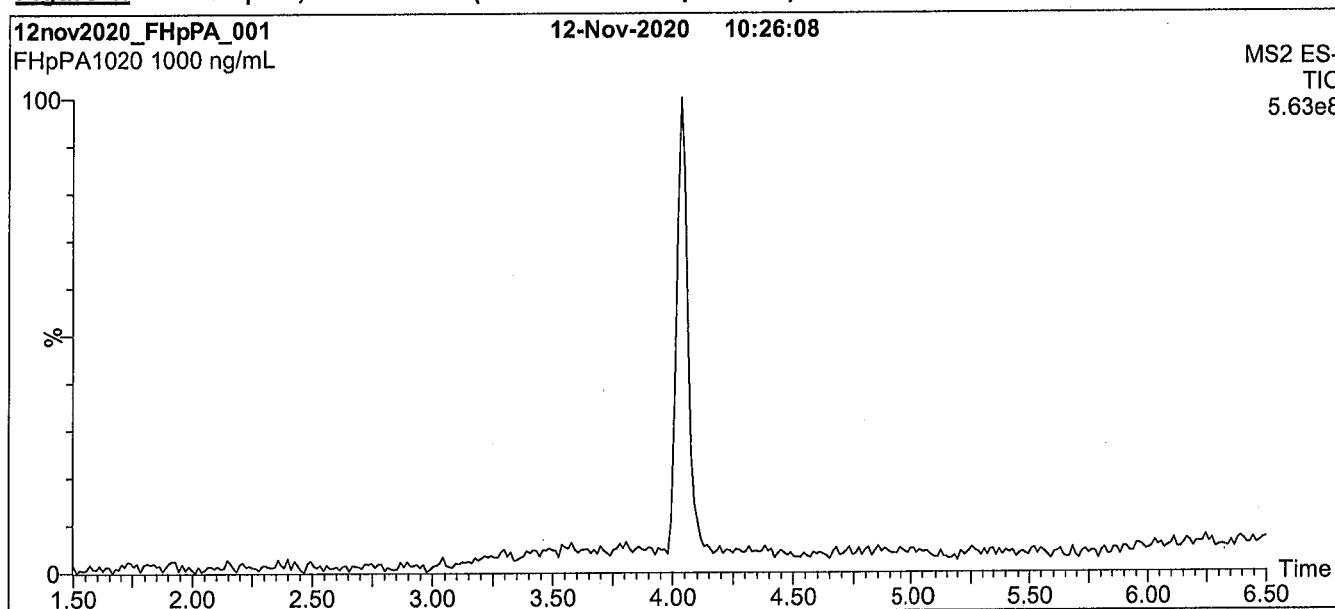
At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

**QUALITY MANAGEMENT:**

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](http://www.well-labs.com) or contact us directly at [info@well-labs.com](mailto: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 RP<sub>18</sub>  
1.7  $\mu$ m, 2.1 x 100 mm

Mobile phase: Gradient

Start: 45% H<sub>2</sub>O / 55% (80:20 MeOH:ACN)  
(both with 10 mM NH<sub>4</sub>OAc 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  $\mu$ L/min

**MS Parameters:**

Experiment: Full Scan (225 - 850 amu)

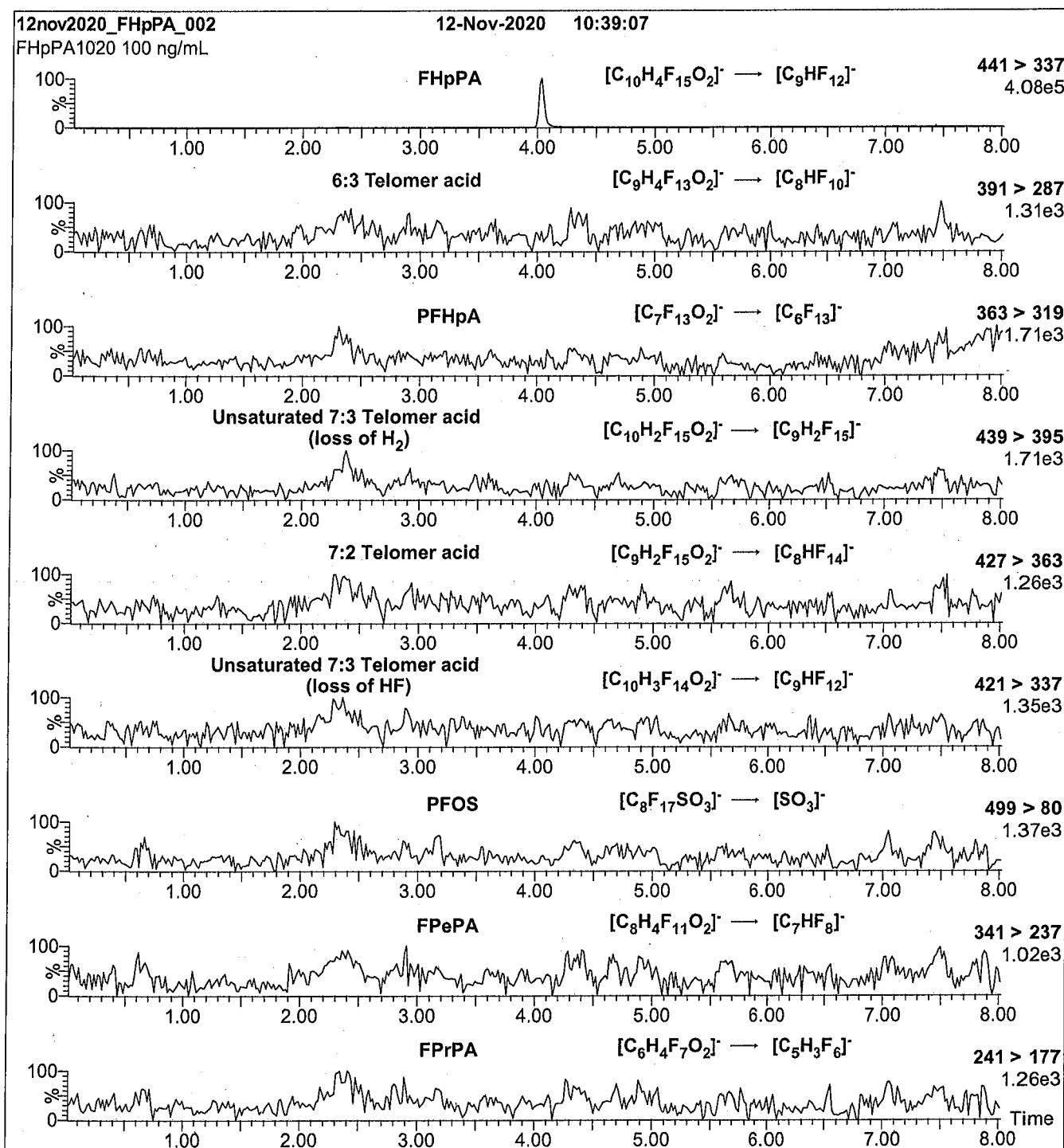
Source: Electrospray (negative)

Capillary Voltage (kV) = 0.50

Cone Voltage (V) = 28.50

Desolvation Temperature ( $^{\circ}$ 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  $\mu$ 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#: FHpPA1020)
Final Volume (mls):	1	Department:	FHpPA
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#: FHpPA1020)
Final Volume (mls):	1	Department:	FHhS
Vials:	1	Last Edit:	03/15/2022 16:00 by DAG

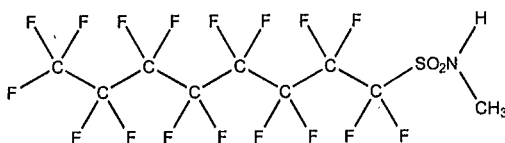
Analyte	Parent	CAS Number	Concentration	Units
7:3FTCA		812-70-4	50	ug/mL



# WELLINGTON LABORATORIES

## 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:**

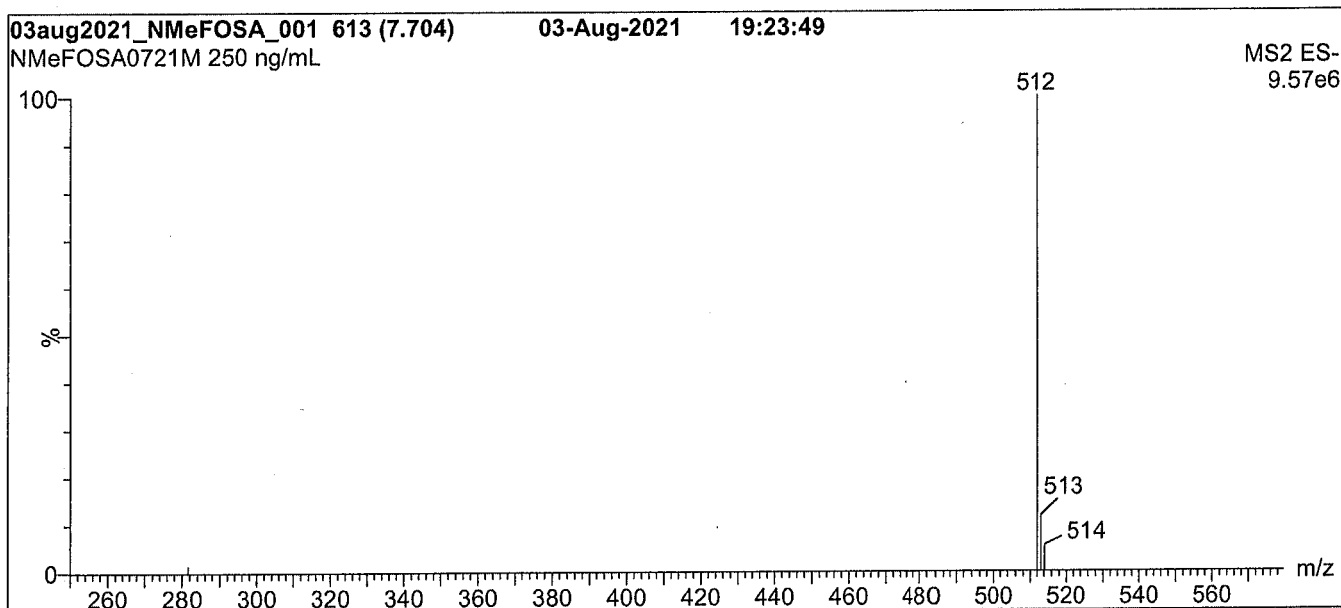
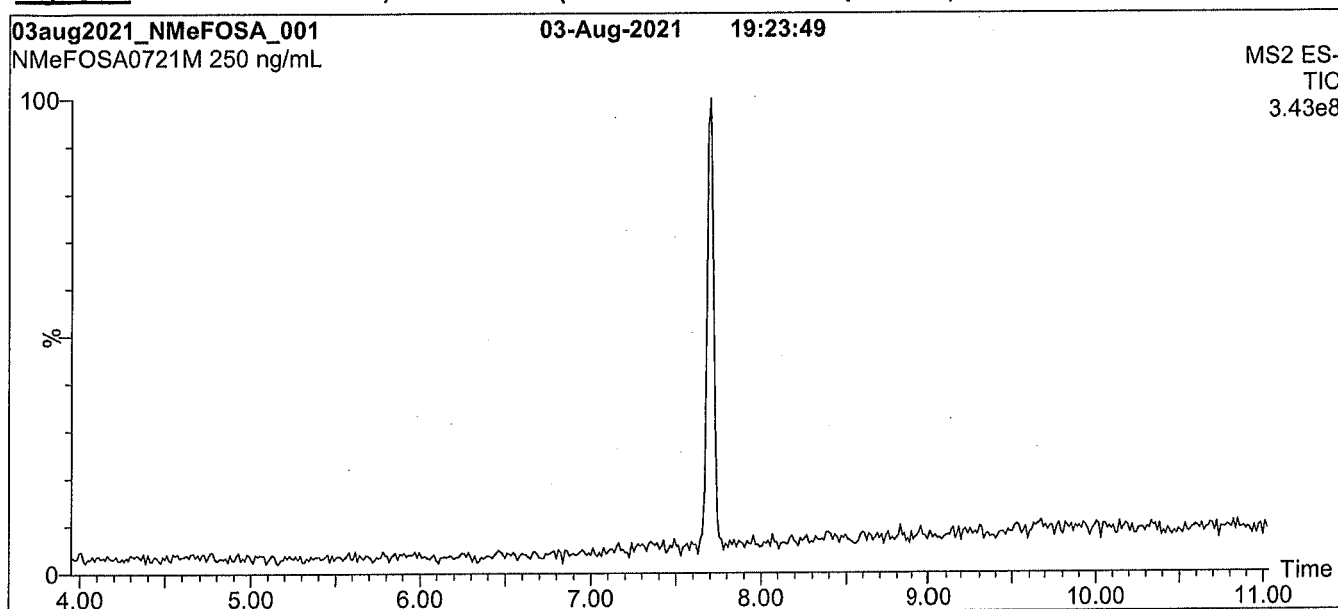
At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

**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](http://www.well-labs.com) or contact us directly at [info@well-labs.com](mailto: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 RP<sub>18</sub>  
1.7  $\mu$ m, 2.1 x 100 mm

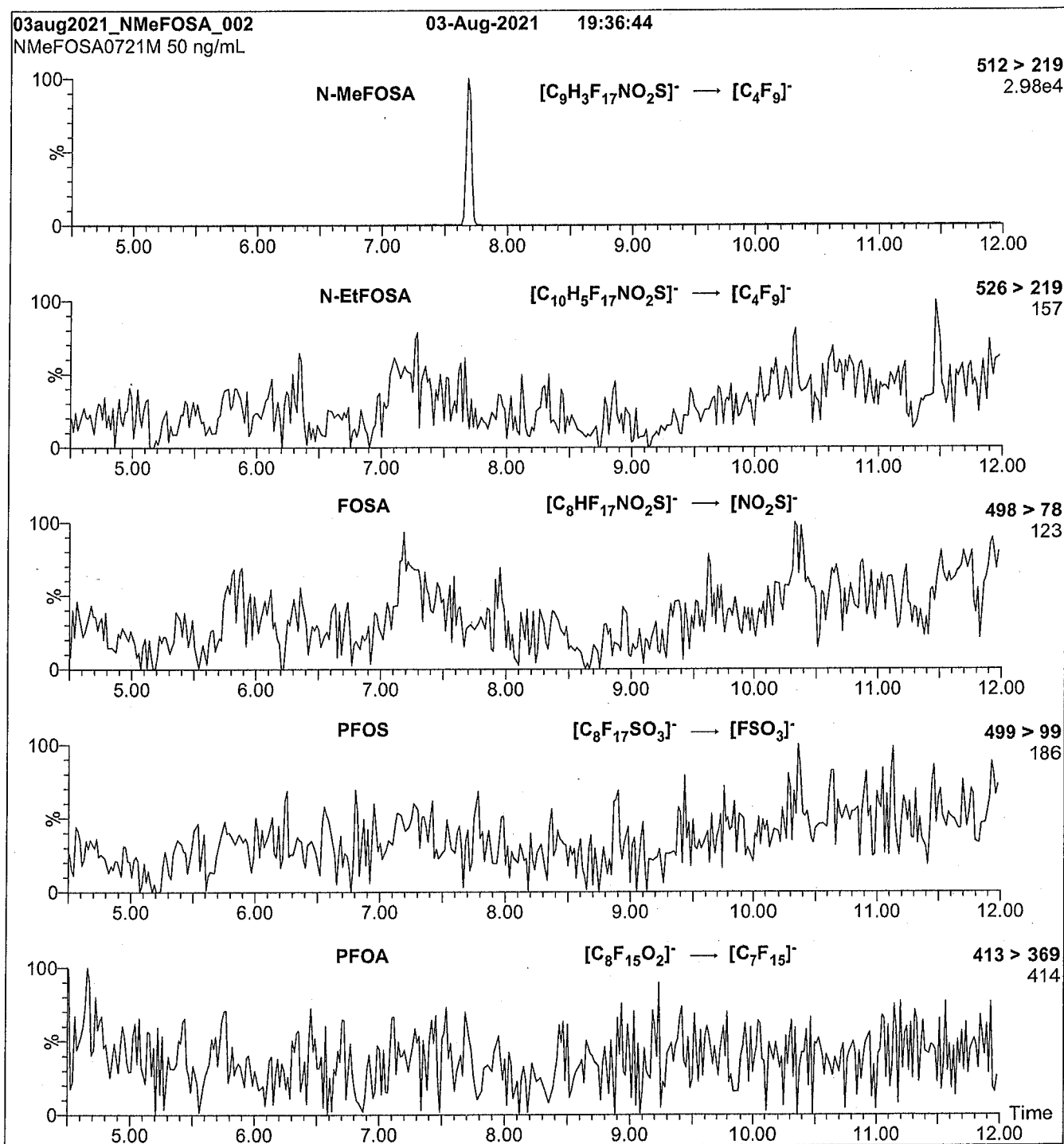
Mobile phase: Gradient  
Start: 40% H<sub>2</sub>O / 60% (80:20 MeOH:ACN)  
(both with 10 mM NH<sub>4</sub>OAc buffer)  
Ramp to 90% organic over 8 min and hold for  
2 min before returning to initial conditions in 0.75 min.  
Time: 12 min

Flow: 300  $\mu$ 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  $\mu$ L/min**MS Parameters:**

Collision Gas (mbar) = 3.41e-3

Collision Energy (eV) = 24

# Analytical Standard Record

**22C0312**

Description:	PFAS - SAS NMeFOSA 50ug/mL	Expires:	08/03/2026
Standard Type:	Analyte Spike	Prepared:	03/15/2022
Solvent:	Methanol	Prepared By:	Dipti Gokal
Final Volume (mls):	1	Department:	PFAS
Vials:	1	Last Edit:	03/15/2022 16:00 by DAG

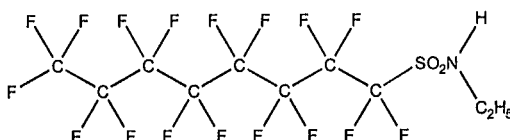
Analyte	Parent	CAS Number	Concentration	Units
NMeFOSA		31506-32-8	50	ug/mL



# WELLINGTON LABORATORIES

## CERTIFICATE OF ANALYSIS DOCUMENTATION

**PRODUCT CODE:** N-EtFOSA-M      **LOT NUMBER:** NEtFOSA0821M  
**COMPOUND:** N-ethylperfluoro-1-octanesulfonamide      **22C0313**  
**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.

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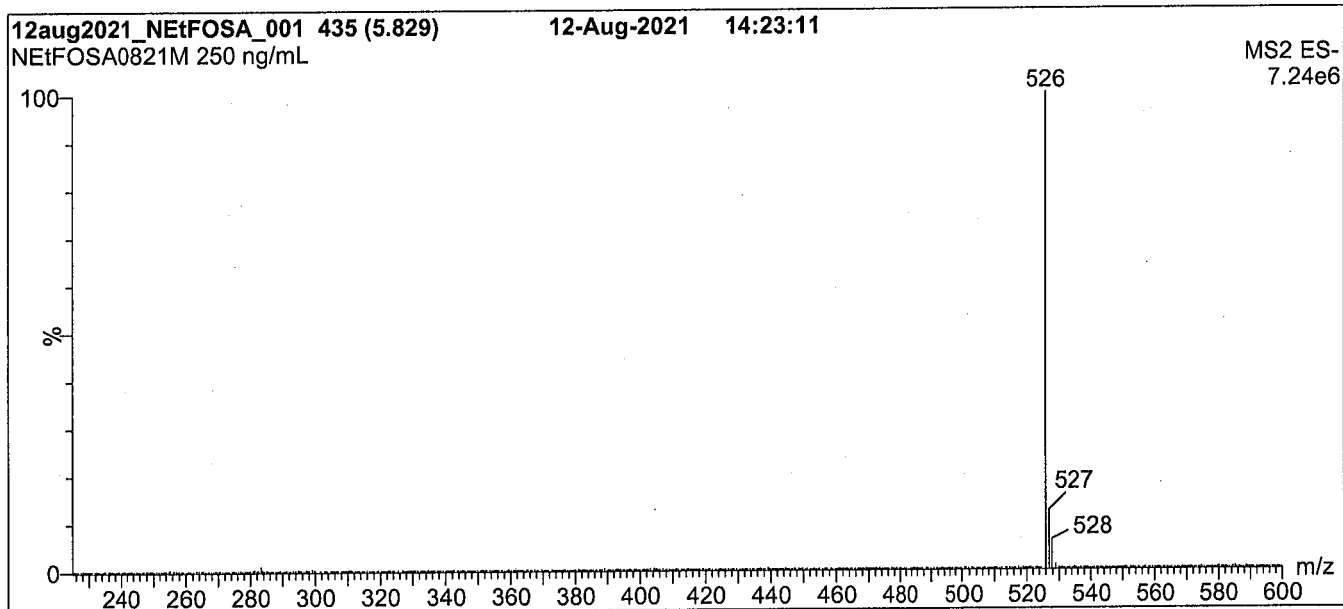
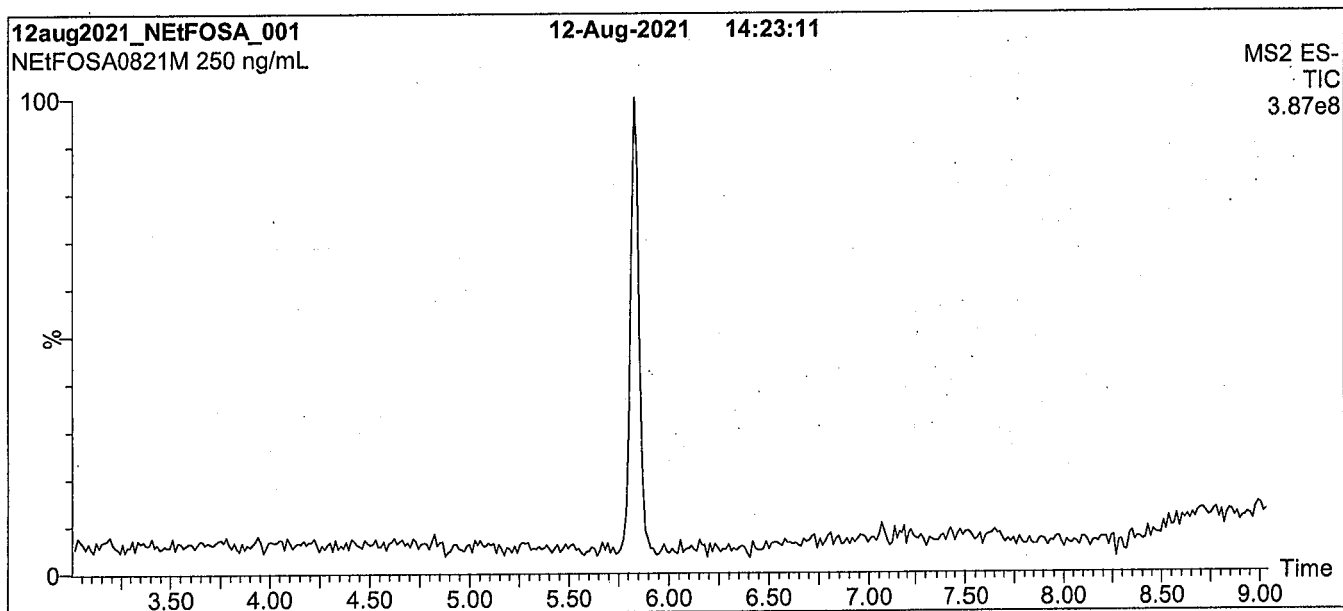
Certified By: \_\_\_\_\_

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



**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 RP<sub>18</sub>  
1.7  $\mu$ m, 2.1 x 100 mm

**Mobile phase: Gradient**

Start: 30% H<sub>2</sub>O / 70% (80:20 MeOH:ACN)  
(both with 10 mM NH<sub>4</sub>OAc 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  $\mu$ 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 ( $^{\circ}$ 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 (mls):	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](http://www.well-labs.com) or contact us directly at [info@well-labs.com](mailto:info@well-labs.com)\*\*

**Table A: PFAC-MXF; Components and Concentrations (ng/mL; ± 5% in Methanol/Water (<1%))**

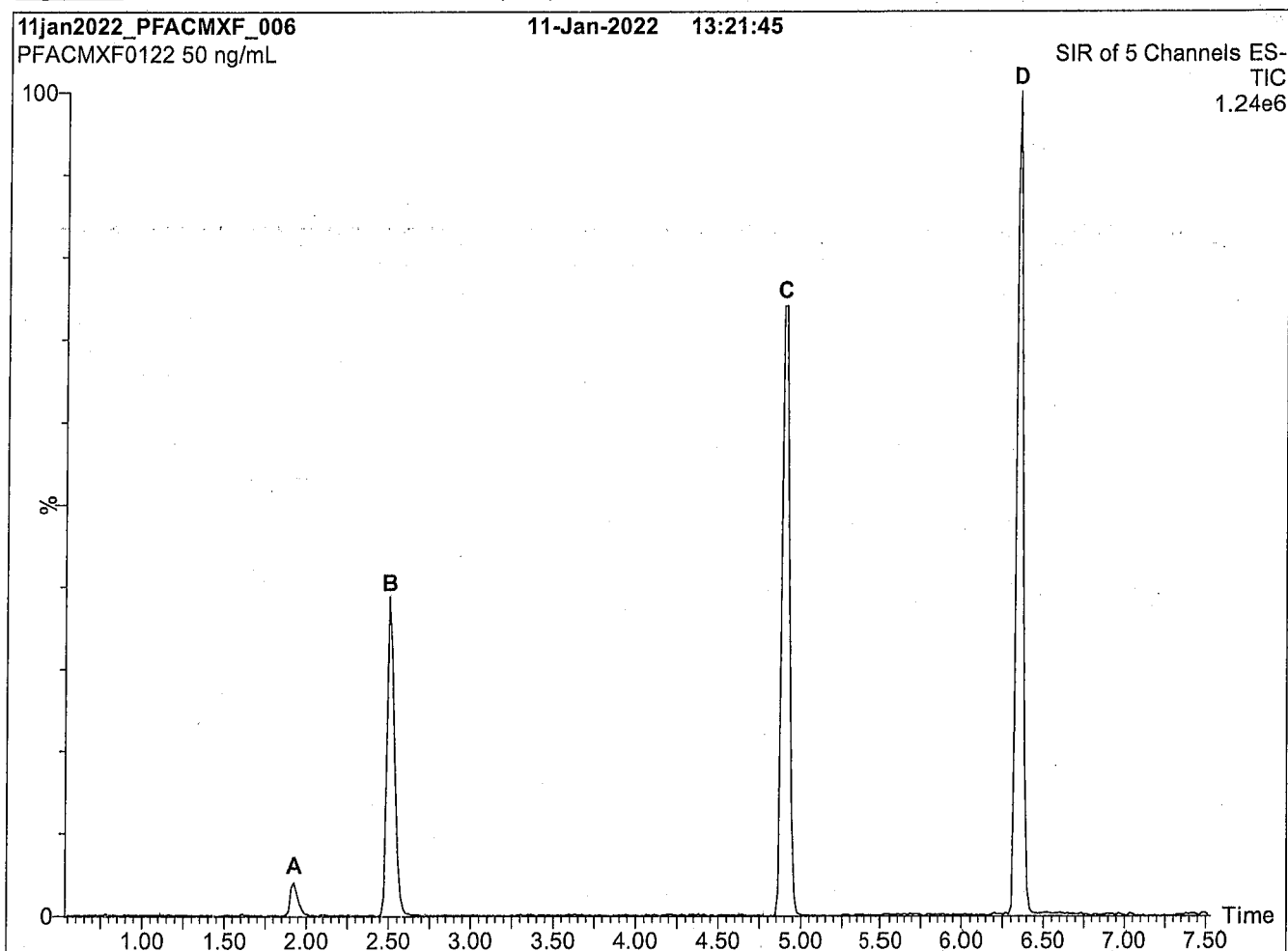
Compound	Acronym	Concentration* (ng/ml)		Peak Assignment in Figure 1
		as the salt	as the acid	
2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-propanoic acid	HFPO-DA	2000		A
Sodium dodecafluoro-3H-4,8-dioxanonanoate	NaDONA	2000	1890	B
Potassium 9-chlorohexadecafluoro-3-oxanonane-1-sulfonate	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 RP<sub>18</sub>  
1.7  $\mu$ m, 2.1 x 100 mm

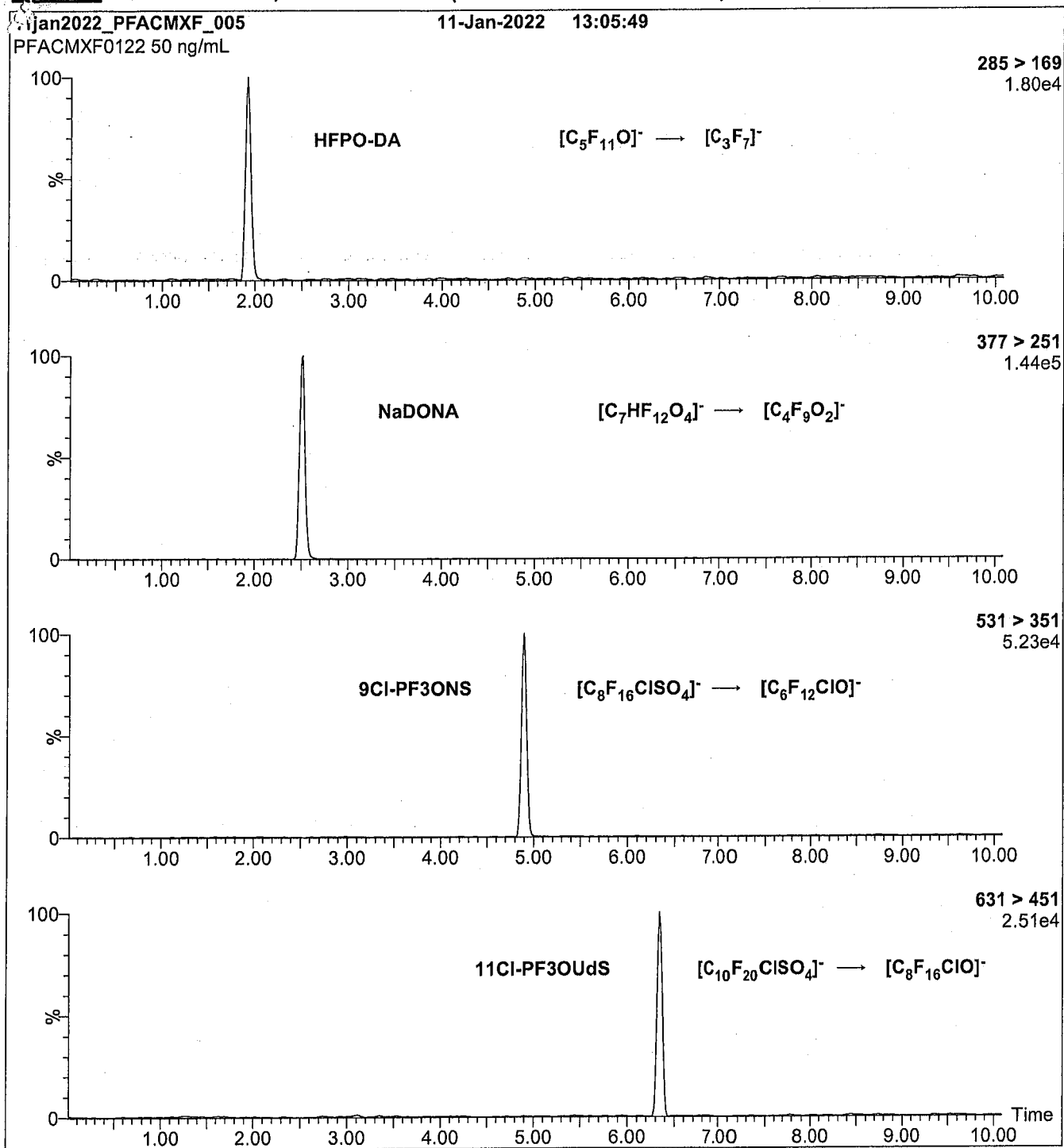
Mobile phase: Gradient  
Start: 45% H<sub>2</sub>O / 55% (80:20 MeOH:ACN)  
(both with 10 mM NH<sub>4</sub>OAc buffer)  
Ramp to 90% organic over 8 min and hold for 2 min  
before returning to initial conditions in 0.75 min.  
Time: 12 min

Flow: 300  $\mu$ L/min

**MS Parameters:**

Experiment: SIR

Source: Electrospray (negative)  
Capillary Voltage (kV) = 2.00  
Cone Voltage (V) = variable (15-74)  
Desolvation Temperature ( $^{\circ}$ 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  $\mu$ L/min**MS Parameters:**Collision Gas (mbar) =  $3.43 \times 10^{-3}$ 

Collision Energy (eV) = 6-60 (variable)





# Analytical Standard Record

**22F0058**

Description:	PFAS - MIX MXF 2ug/mL	Expires:	01/11/2025
Standard Type:	Other	Prepared:	01/10/2022
Solvent:	MeOH	Prepared By:	Lizbeth Andres
Final Volume (mls):	1.2	Department:	PFAS
Vials:	1	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<sub>4</sub>-C<sub>14</sub>), eight native perfluoroalkanesulfonates (C<sub>4</sub>, C<sub>5</sub>, C<sub>7</sub>, C<sub>9</sub>, C<sub>10</sub> and C<sub>12</sub> linear; C<sub>6</sub> and C<sub>8</sub> 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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**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:**

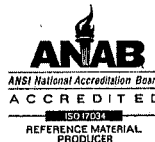
Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

**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](http://www.well-labs.com) or contact us directly at [info@well-labs.com](mailto: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* ( $\mu\text{g/mL}$ )		Peak Assignment in Figure 1
		as the salt	as the acid	
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	PFTTrDA	1.00		27
Perfluoro-n-tetradecanoic acid	PFTeDA	1.00		29
Perfluoro-1-octanesulfonamide	FOSA	1.00		25
N-methylperfluorooctanesulfonamidoacetic acid <sup>a</sup>	N-MeFOSAA: linear isomer	0.760		20
	N-MeFOSAA: $\Sigma$ branched isomers	0.240		17
N-ethylperfluorooctanesulfonamidoacetic acid <sup>b</sup>	N-EtFOSAA: linear isomer	0.775		22
	N-EtFOSAA: $\Sigma$ branched isomers	0.225		21
Compound	Acronym	Concentration* ( $\mu\text{g/mL}$ )		Peak Assignment in Figure 1
		as the salt	as the acid	
Potassium perfluoro-1-butanedisulfonate	L-PFBS	1.00	0.887	3
Sodium perfluoro-1-pentadisulfonate	L-PFPeS	1.00	0.941	6
Potassium perfluorohexadisulfonate <sup>c</sup>	PFHxSK: linear isomer	0.811	0.741	9
	PFHxSK: $\Sigma$ branched isomers	0.189	0.173	8
Sodium perfluoro-1-heptadisulfonate	L-PFHpS	1.00	0.953	12
Potassium perfluorooctadisulfonate <sup>d</sup>	PFOSK: linear isomer	0.788	0.732	15
	PFOSK: $\Sigma$ branched isomers	0.211	0.196	13
Sodium perfluoro-1-nonadisulfonate	L-PFNS	1.00	0.962	19
Sodium perfluoro-1-decadisulfonate	L-PFDs	1.00	0.965	24
Sodium perfluoro-1-dodecadisulfonate	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-perfluorodecane sulfonate	8:2Fts	4.00	3.84	16

<sup>a</sup> See Table B for percent composition of linear and branched N-MeFOSAA isomers.

<sup>b</sup> See Table C for percent composition of linear and branched N-EtFOSAA isomers.

<sup>c</sup> See Table D for percent composition of linear and branched PFHxSK isomers.

<sup>d</sup> 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 <sup>19</sup>F-NMR)\*

Isomer	Compound	Structure	Percent Composition by <sup>19</sup> F-NMR	
1	N-methylperfluoro-1-octanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_7\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ $\quad \quad \quad  $ $\quad \quad \quad \text{CH}_3$	76.0	76.0
2	N-methylperfluoro-3-methylheptanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_3\text{CF}(\text{CF}_2)_2\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ $\quad \quad \quad   \quad \quad \quad  $ $\quad \quad \quad \text{CF}_3 \quad \quad \quad \text{CH}_3$	0.7	24.0
3	N-methylperfluoro-4-methylheptanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_2\text{CF}(\text{CF}_2)_3\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ $\quad \quad \quad   \quad \quad \quad  $ $\quad \quad \quad \text{CF}_3 \quad \quad \quad \text{CH}_3$	2.0	
4	N-methylperfluoro-5-methylheptanesulfonamidoacetic acid	$\text{CF}_3\text{CF}_2\text{CF}(\text{CF}_2)_4\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ $\quad \quad \quad   \quad \quad \quad  $ $\quad \quad \quad \text{CF}_3 \quad \quad \quad \text{CH}_3$	6.0	
5	N-methylperfluoro-6-methylheptanesulfonamidoacetic acid	$\text{CF}_3\text{CF}(\text{CF}_2)_5\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ $\quad \quad \quad   \quad \quad \quad  $ $\quad \quad \quad \text{CF}_3 \quad \quad \quad \text{CH}_3$	14.0	
6	N-methylperfluoro-5,5-dimethylhexanesulfonamidoacetic acid	$\quad \quad \quad \text{CF}_3$ $\quad \quad \quad  $ $\text{CF}_3\text{C}(\text{CF}_2)_4\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ $\quad \quad \quad   \quad \quad \quad  $ $\quad \quad \quad \text{CF}_3 \quad \quad \quad \text{CH}_3$	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 <sup>19</sup>F-NMR)\***

Isomer	Compound	Structure	Percent Composition by <sup>19</sup> F-NMR	
1	N-ethylperfluoro-1-octanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_7\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ $\quad \quad \quad  $ $\quad \quad \quad \text{C}_2\text{H}_5$	77.5	77.5
2	N-ethylperfluoro-3-methylheptanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_3\text{CF}(\text{CF}_2)_2\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ $\quad \quad \quad   \quad \quad \quad  $ $\quad \quad \quad \text{CF}_3 \quad \quad \quad \text{C}_2\text{H}_5$	2.3	22.5
3	N-ethylperfluoro-4-methylheptanesulfonamidoacetic acid	$\text{CF}_3(\text{CF}_2)_2\text{CF}(\text{CF}_2)_3\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ $\quad \quad \quad   \quad \quad \quad  $ $\quad \quad \quad \text{CF}_3 \quad \quad \quad \text{C}_2\text{H}_5$	2.2	
4	N-ethylperfluoro-5-methylheptanesulfonamidoacetic acid	$\text{CF}_3\text{CF}_2\text{CF}(\text{CF}_2)_4\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ $\quad \quad \quad   \quad \quad \quad  $ $\quad \quad \quad \text{CF}_3 \quad \quad \quad \text{C}_2\text{H}_5$	5.4	
5	N-ethylperfluoro-6-methylheptanesulfonamidoacetic acid	$\text{CF}_3\text{CF}(\text{CF}_2)_5\text{SO}_2\text{NCH}_2\text{CO}_2\text{H}$ $\quad \quad \quad   \quad \quad \quad  $ $\quad \quad \quad \text{CF}_3 \quad \quad \quad \text{C}_2\text{H}_5$	10.4	
6	N-ethylperfluoro-5,5-dimethylhexanesulfonamidoacetic acid	$\begin{array}{c} \text{CF}_3 \\   \\ \text{CF}_3\text{C}(\text{CF}_2)_4\text{SO}_2\text{NCH}_2\text{CO}_2\text{H} \\   \\ \text{CF}_3 \end{array}$ $\quad \quad \quad  $ $\quad \quad \quad \text{C}_2\text{H}_5$	0.3	
7	N-ethylperfluoro-4,5-dimethylhexanesulfonamidoacetic acid	$\begin{array}{c} \text{CF}_3 \\   \\ \text{CF}_3\text{CFCF}(\text{CF}_2)_3\text{SO}_2\text{NCH}_2\text{CO}_2\text{H} \\   \\ \text{CF}_3 \end{array}$ $\quad \quad \quad  $ $\quad \quad \quad \text{C}_2\text{H}_5$	0.3	
8	N-ethylperfluoro-3,5-dimethylhexanesulfonamidoacetic acid	$\begin{array}{c} \text{CF}_3 \\   \\ \text{CF}_3\text{CFCF}_2\text{CF}(\text{CF}_2)_2\text{SO}_2\text{NCH}_2\text{CO}_2\text{H} \\   \\ \text{CF}_3 \end{array}$ $\quad \quad \quad  $ $\quad \quad \quad \text{C}_2\text{H}_5$	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  $^{19}\text{F}$ -NMR)\***

Isomer	Compound	Structure	Percent Composition by $^{19}\text{F}$ -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**	$\begin{array}{c} \text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}(\text{SO}_3\text{K}^+) \\   \\ \text{CF}_3 \end{array}$	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	$\begin{array}{c} \text{CF}_3 \\   \\ \text{CF}_3\text{C}(\text{CF}_3)\text{CF}_2\text{CF}_2\text{SO}_3\text{K}^+ \\   \\ \text{CF}_3 \end{array}$	0.2	
7	Other Unidentified Isomers		0.5	

\* Percent of total perfluorohexanesulfonate isomers only.

\*\* Systematic Name: Potassium perfluorohexane-2-sulfonate.

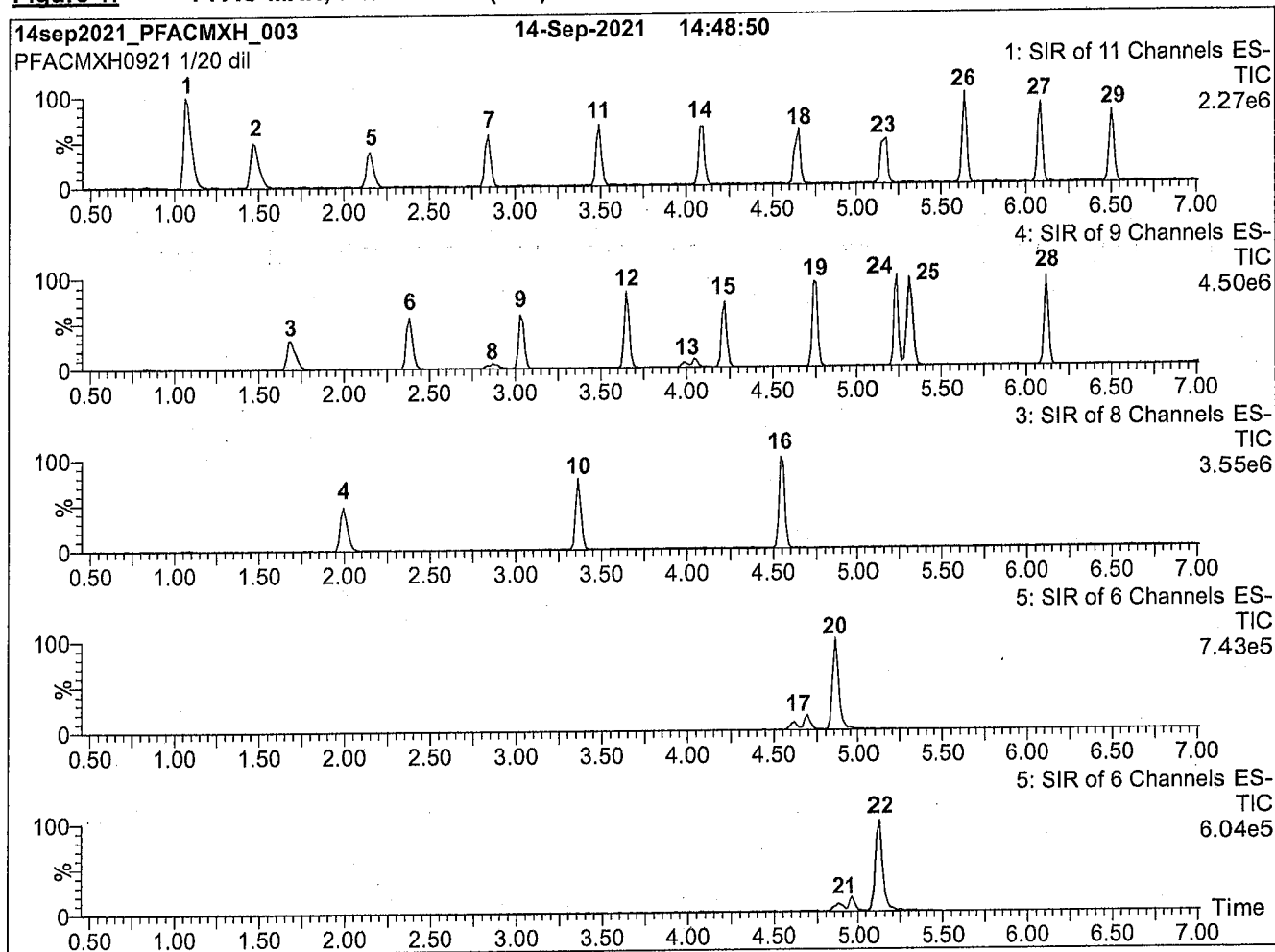
**Table E: PFOSK; Isomeric Components and Percent Composition (by <sup>19</sup>F-NMR)\***

Isomer	Compound	Structure	Percent Composition by <sup>19</sup> F-NMR	
1	Potassium perfluoro-1-octanesulfonate	CF <sub>3</sub> CF <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> SO <sub>3</sub> <sup>-</sup> K <sup>+</sup>	78.8	78.8
2	Potassium 1-trifluoromethylperfluoroheptanesulfonate**	CF <sub>3</sub> CF <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> CF(SO <sub>3</sub> <sup>-</sup> )K <sup>+</sup>   CF <sub>3</sub>	1.2	21.1
3	Potassium 2-trifluoromethylperfluoroheptanesulfonate	CF <sub>3</sub> CF <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> CF(CF <sub>3</sub> )SO <sub>3</sub> <sup>-</sup> K <sup>+</sup>   CF <sub>3</sub>	0.6	
4	Potassium 3-trifluoromethylperfluoroheptanesulfonate	CF <sub>3</sub> CF <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> CF(CF <sub>3</sub> )CF <sub>2</sub> SO <sub>3</sub> <sup>-</sup> K <sup>+</sup>   CF <sub>3</sub>	1.9	
5	Potassium 4-trifluoromethylperfluoroheptanesulfonate	CF <sub>3</sub> CF <sub>2</sub> CF <sub>2</sub> CF(CF <sub>3</sub> )CF <sub>2</sub> CF <sub>2</sub> SO <sub>3</sub> <sup>-</sup> K <sup>+</sup>   CF <sub>3</sub>	2.2	
6	Potassium 5-trifluoromethylperfluoroheptanesulfonate	CF <sub>3</sub> CF <sub>2</sub> CF(CF <sub>3</sub> )CF <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> SO <sub>3</sub> <sup>-</sup> K <sup>+</sup>   CF <sub>3</sub>	4.5	
7	Potassium 6-trifluoromethylperfluoroheptanesulfonate	CF <sub>3</sub> CF(CF <sub>3</sub> )CF <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> SO <sub>3</sub> <sup>-</sup> K <sup>+</sup>   CF <sub>3</sub>	10.0	
8	Potassium 5,5-di(trifluoromethyl)perfluorohexanesulfonate	CF <sub>3</sub>   CF <sub>3</sub> CCF <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> SO <sub>3</sub> <sup>-</sup> K <sup>+</sup>   CF <sub>3</sub>	0.2	
9	Potassium 4,4-di(trifluoromethyl)perfluorohexanesulfonate	CF <sub>3</sub>   CF <sub>3</sub> CF <sub>2</sub> CCF <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> SO <sub>3</sub> <sup>-</sup> K <sup>+</sup>   CF <sub>3</sub>	0.03	
10	Potassium 4,5-di(trifluoromethyl)perfluorohexanesulfonate	CF <sub>3</sub>   CF <sub>3</sub> CF(CF <sub>3</sub> )CF <sub>2</sub> CF <sub>2</sub> CF <sub>2</sub> SO <sub>3</sub> <sup>-</sup> K <sup>+</sup>   CF <sub>3</sub>	0.4	
11	Potassium 3,5-di(trifluoromethyl)perfluorohexanesulfonate	CF <sub>3</sub>   CF <sub>3</sub> CF(CF <sub>3</sub> )CF <sub>2</sub> CF(CF <sub>3</sub> )CF <sub>2</sub> SO <sub>3</sub> <sup>-</sup> K <sup>+</sup>   CF <sub>3</sub>	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 RP<sub>18</sub>  
1.7  $\mu$ m, 2.1 x 100 mm

Mobile phase: Gradient

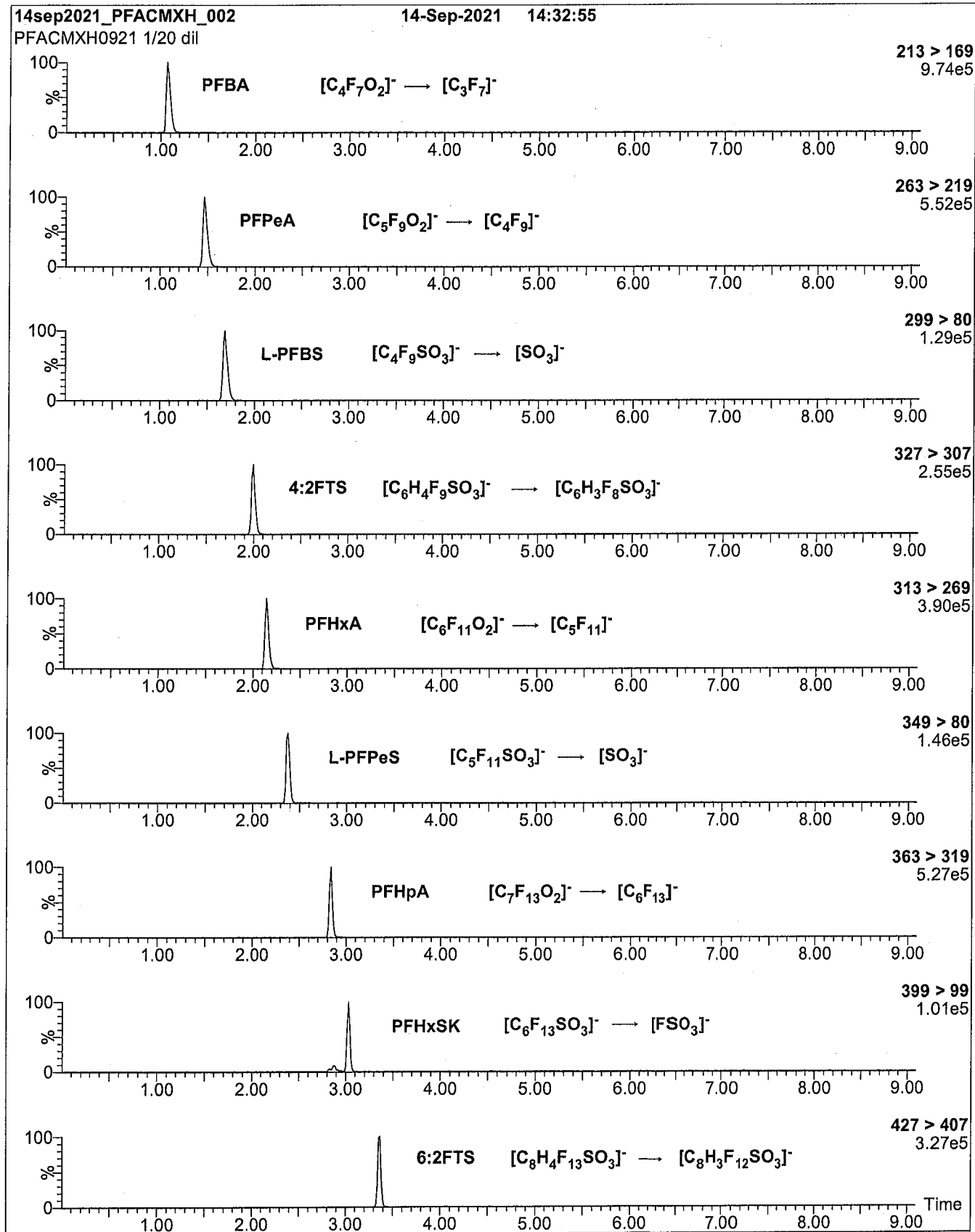
Start: 50% H<sub>2</sub>O / 50% (80:20 MeOH:ACN)  
(both with 10 mM NH<sub>4</sub>OAc buffer)  
Ramp to 90% organic over 9 min and hold for 2 min  
before returning to initial conditions in 1 min.  
Time: 15 min

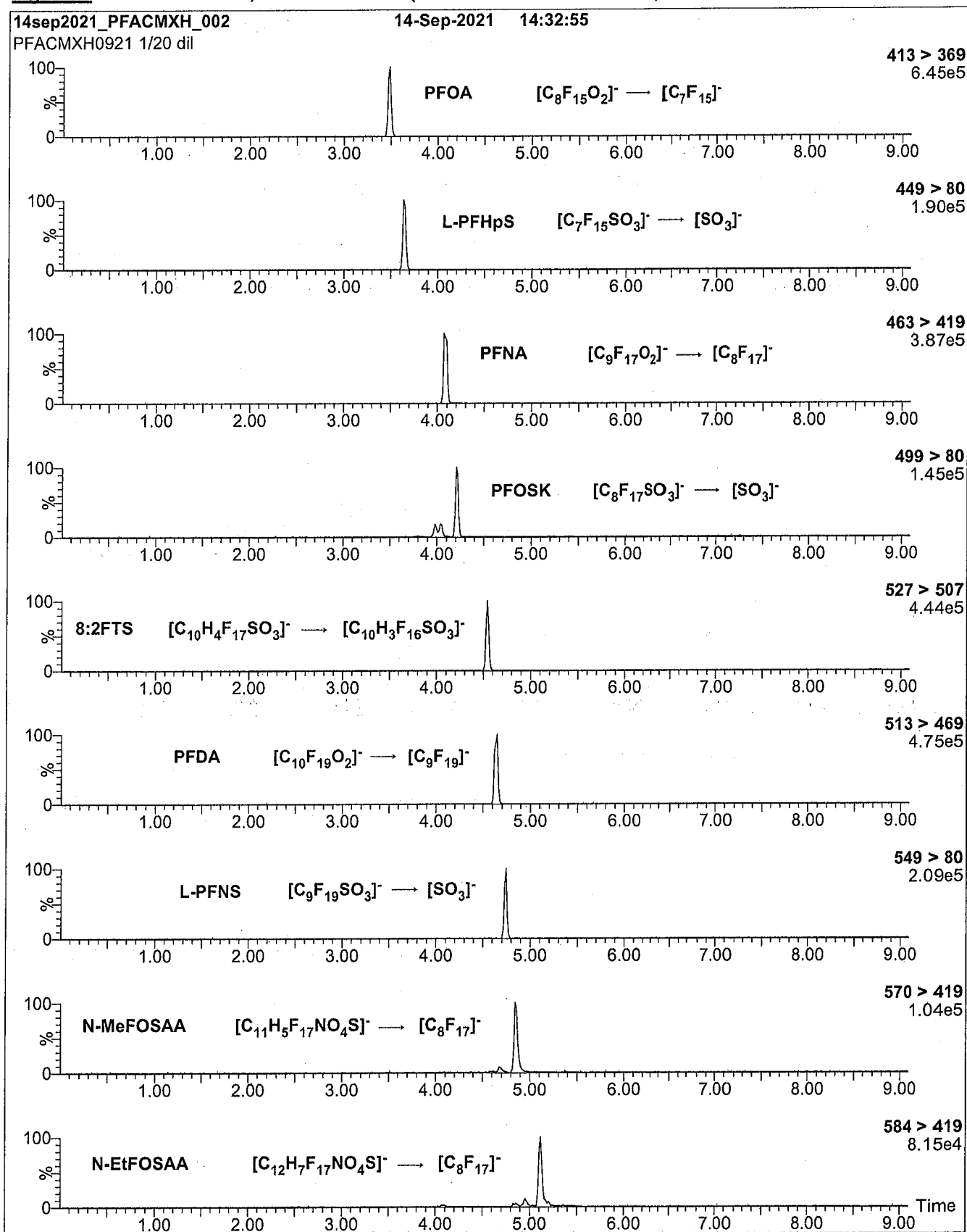
Flow: 300  $\mu$ L/min

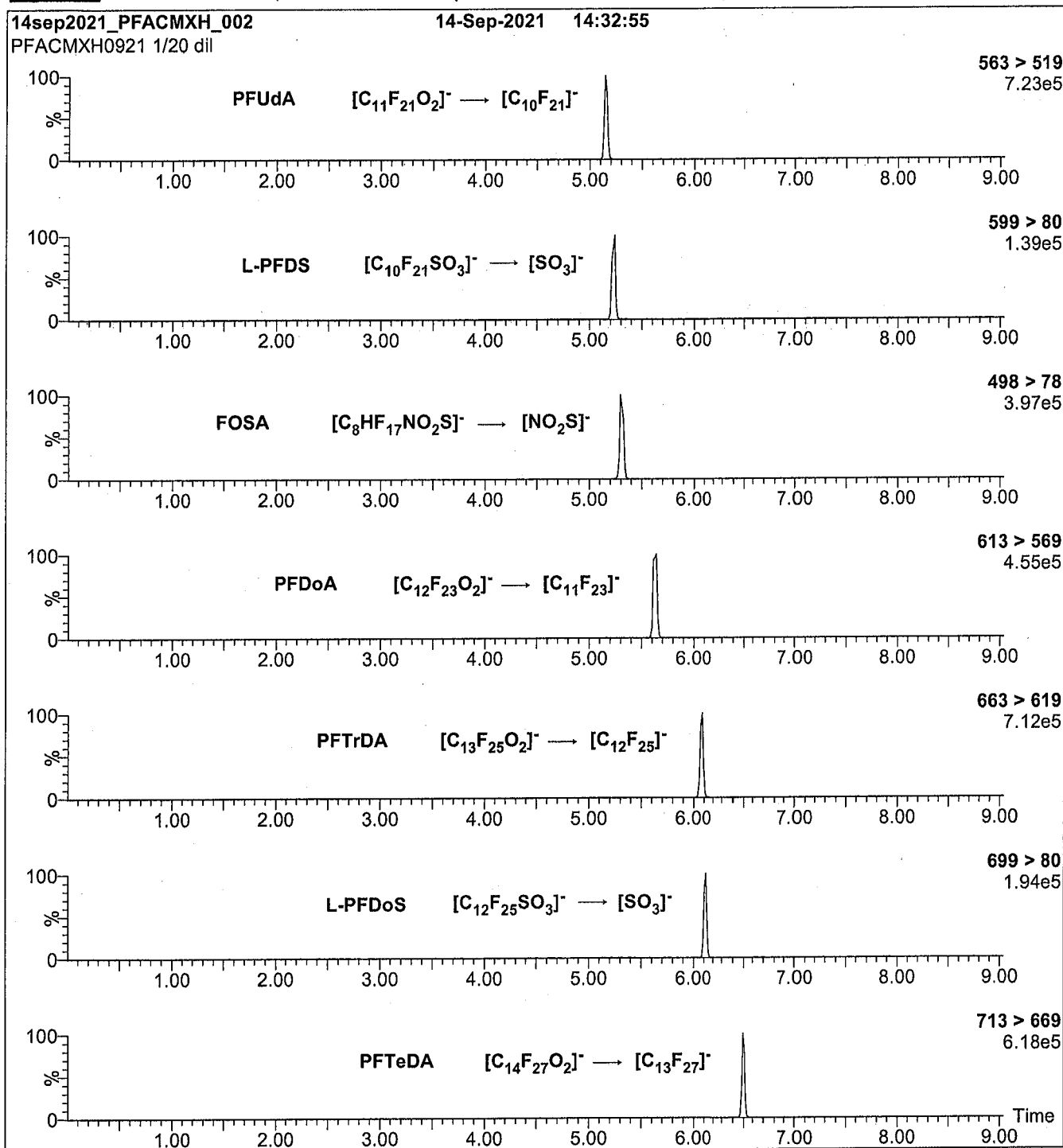
**MS Parameters:**

Experiment: SIR

Source: Electrospray (negative)  
Capillary Voltage (kV) = 2.50  
Cone Voltage (V) = variable (2-74)  
Desolvation Temperature ( $^{\circ}$ 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  $\mu$ 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	Expires:	09/14/2026
Standard Type:	Other	Prepared:	09/09/2021
Solvent:	MeOH	Prepared By:	Lizbeth Andres
Final Volume (mls):	1.2	Department:	PFAS
Vials:	1	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](mailto: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](http://www.well-labs.com) or contact us directly at [info@well-labs.com](mailto:info@well-labs.com)\*\*

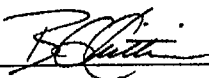


**Table A: PFAC-MXG; Components and Concentrations (ng/mL;  $\pm$  5% in methanol/water (<1%))**

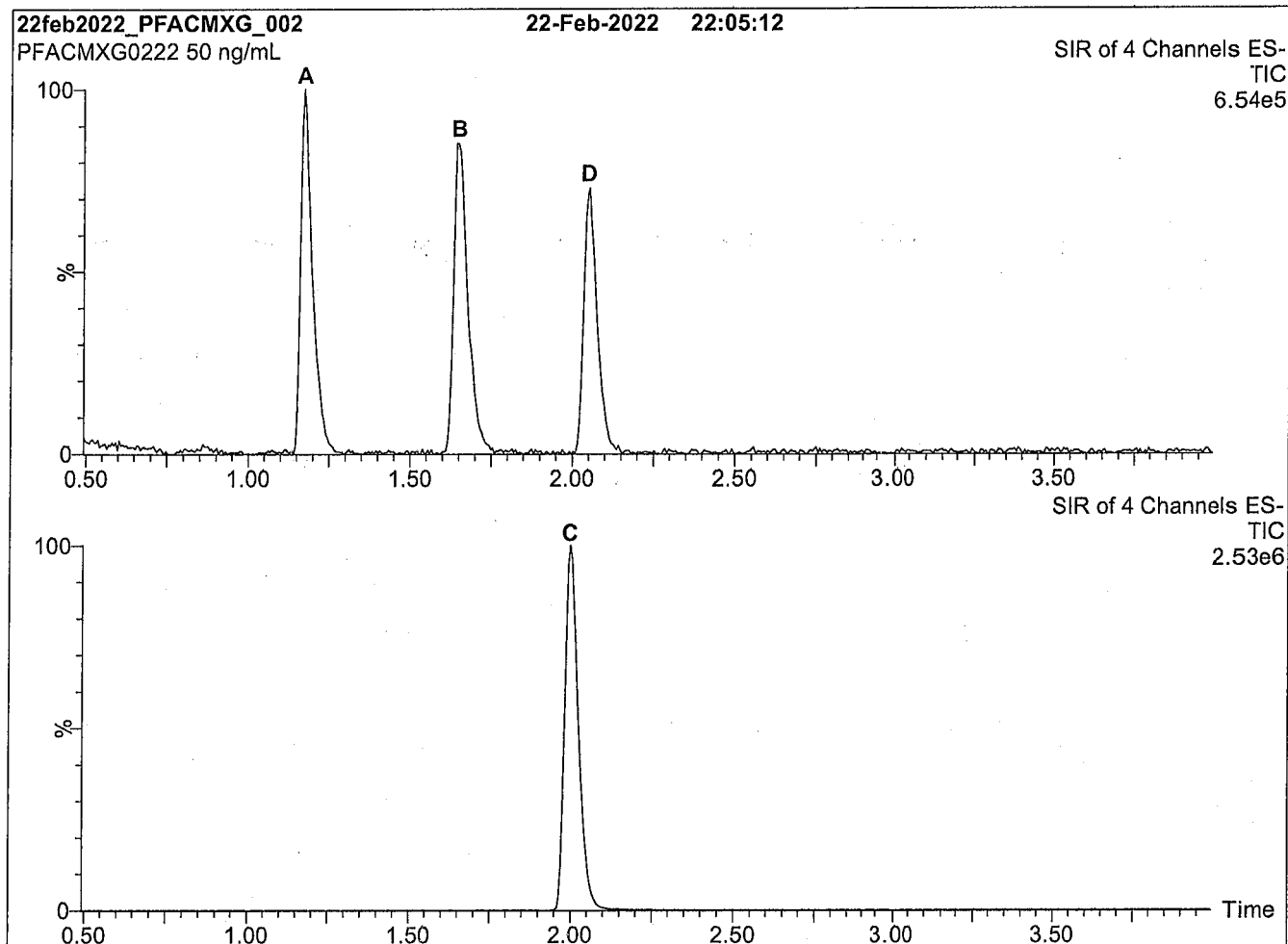
Compound	Acronym	Concentration (ng/mL)		Peak Assignment in Figure 1
		as the salt	as the acid	
Perfluoro-4-oxapentanoic acid	PF4OPeA	2000		A
Perfluoro-5-oxahexanoic acid	PF5OHxA	2000		B
Perfluoro-3,6-dioxaheptanoic acid	3,6-OPFHpA	2000		D
Compound	Acronym	Concentration* (ng/mL)		Peak Assignment in Figure 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 RP<sub>18</sub>  
1.7  $\mu$ m, 2.1 x 100 mm

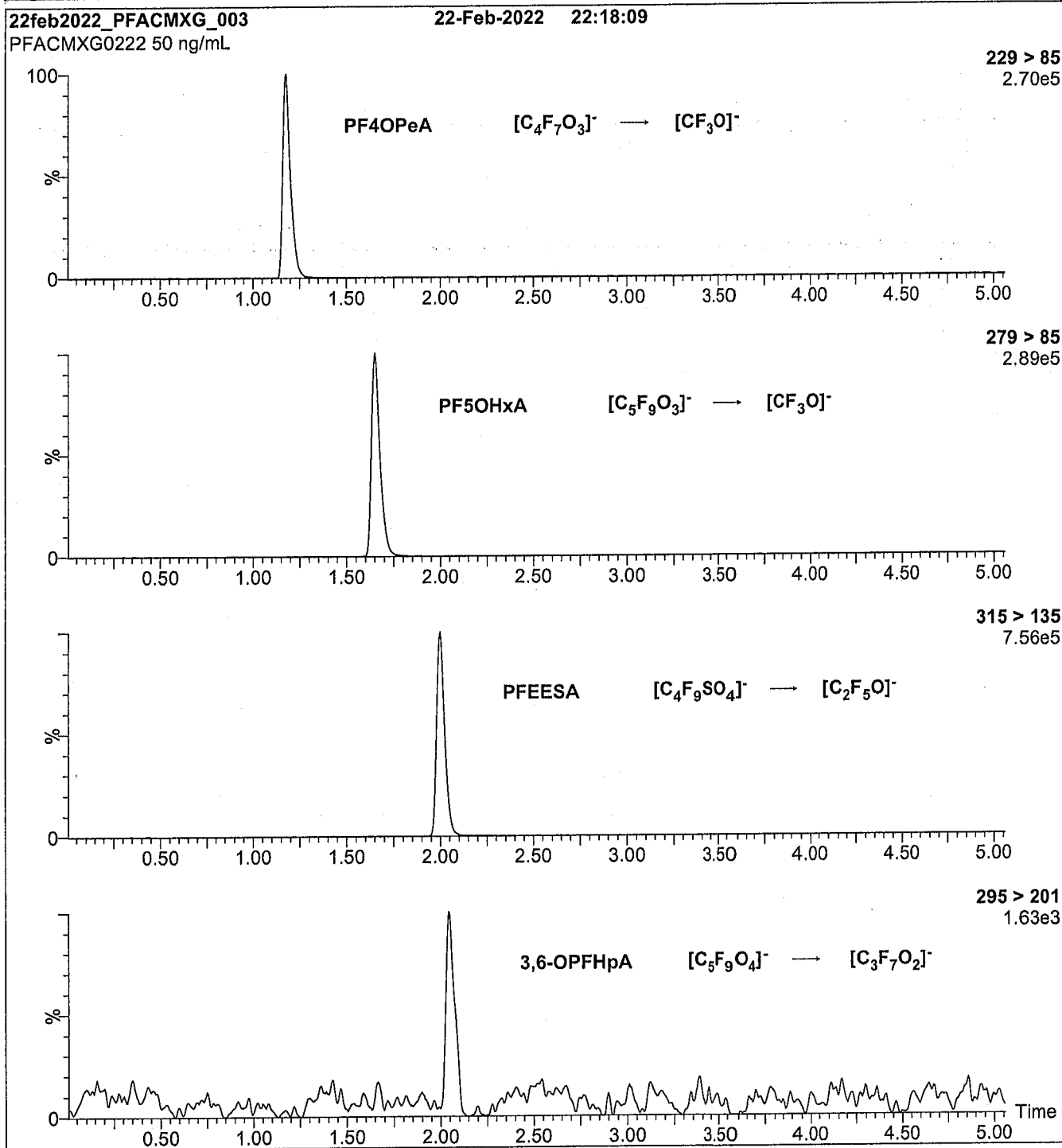
Mobile phase: Gradient  
Start: 50% H<sub>2</sub>O / 50% (80:20 MeOH:ACN)  
(both with 10 mM NH<sub>4</sub>OAc buffer)  
Ramp to 90% organic over 8 min and hold for 2 min  
before returning to initial conditions in 0.75 min.  
Time: 12 min

Flow: 300  $\mu$ 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)****Conditions for Figure 2:**

Injection: On-column (PFAC-MXG)

Mobile phase: Same as Figure 1

Flow: 300  $\mu$ 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 NFDHA 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	Expires:	01/11/2025
Standard Type:	Analyte Spike	Prepared:	09/13/2022
Solvent:	MeOH	Prepared By:	Dipti Gokal
Final Volume (mls):	6	Department:	PFAS
Vials:	1	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

<b><u>PRODUCT CODE:</u></b>	PFAC-MXG
<b><u>LOT NUMBER:</u></b>	PFACMXG0222
<b><u>SOLVENT(S):</u></b>	Methanol/Water (<1%)
<b><u>DATE PREPARED:</u></b> (mm/dd/yyyy)	02/07/2022
<b><u>LAST TESTED:</u></b> (mm/dd/yyyy)	02/22/2022
<b><u>EXPIRY DATE:</u></b> (mm/dd/yyyy)	02/22/2027
<b><u>RECOMMENDED STORAGE:</u></b>	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
		as the salt	as the acid	
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)

# 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 NFDHA 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	Expires:	01/11/2025
Standard Type:	Other	Prepared:	09/26/2022
Solvent:	MeOH	Prepared By:	Dipti Gokal
Final Volume (mls):	1.2	Department:	PFAS
Vials:	1	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



# WELLINGTON LABORATORIES

## CERTIFICATE OF ANALYSIS DOCUMENTATION

### PFAC-MXF

#### Native Replacement PFAS Solution/Mixture

<b><u>PRODUCT CODE:</u></b>	PFAC-MXF
<b><u>LOT NUMBER:</u></b>	PFACMXF0122
<b><u>SOLVENT(S):</u></b>	Methanol / Water (<1%)
<b><u>DATE PREPARED:</u></b> (mm/dd/yyyy)	01/10/2022
<b><u>LAST TESTED:</u></b> (mm/dd/yyyy)	01/11/2022
<b><u>EXPIRY DATE:</u></b> (mm/dd/yyyy)	01/11/2025
<b><u>RECOMMENDED STORAGE:</u></b>	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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**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
		as the salt	as the acid	
2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-propanoic acid	HFPO-DA	2000		A
Sodium dodecafluoro-3H-4,8-dioxananoate	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	Expires:	01/11/2025
Standard Type:	Other	Prepared:	01/10/2022
Solvent:	MeOH	Prepared By:	Dipti Gokal
Final Volume (mls):	1.2	Department:	PFAS
Vials:	1	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

<b><u>PRODUCT CODE:</u></b>	PFAC-MXH
<b><u>LOT NUMBER:</u></b>	PFACMXH0822
<b><u>SOLVENT(S):</u></b>	Methanol/Isopropanol (2%)/Water (<1%)
<b><u>DATE PREPARED:</u></b> (mm/dd/yyyy)	08/05/2022
<b><u>LAST TESTED:</u></b> (mm/dd/yyyy)	08/08/2022
<b><u>EXPIRY DATE:</u></b> (mm/dd/yyyy)	08/08/2027
<b><u>RECOMMENDED STORAGE:</u></b>	Refrigerate ampoule

### DESCRIPTION:

PFAC-MXH is a solution/mixture of 11 native linear perfluoroalkylcarboxylic acids (C<sub>4</sub>-C<sub>14</sub>), eight native perfluoroalkanesulfonates (C<sub>4</sub>, C<sub>5</sub>, C<sub>7</sub>, C<sub>9</sub>, C<sub>10</sub> and C<sub>12</sub> linear; C<sub>6</sub> and C<sub>8</sub> 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
		as the salt	as the acid	
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 <sup>a</sup>	N-MeFOSAA: linear isomer	760		20
	N-MeFOSAA: $\Sigma$ branched isomers	240		17
N-ethylperfluorooctanesulfonamidoacetic acid <sup>b</sup>	N-EtFOSAA: linear isomer	775		22
	N-EtFOSAA: $\Sigma$ 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 perfluorohexadisulfonate <sup>c</sup>	PFHxSK: linear isomer	811	741	9
	PFHxSK: $\Sigma$ branched isomers	189	173	8
Sodium perfluoro-1-heptadisulfonate	L-PFHpS	1000	953	12
Potassium perfluorooctadisulfonate <sup>d</sup>	PFOSK: linear isomer	788	732	15
	PFOSK: $\Sigma$ branched isomers	211	196	13
Sodium perfluoro-1-nonadisulfonate	L-PFNS	1000	962	19
Sodium perfluoro-1-decadisulfonate	L-PFDS	1000	965	25
Sodium perfluoro-1-dodecadisulfonate	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-perfluorodecane sulfonate	8:2FTS	4000	3840	16

<sup>a</sup> See Table B for percent composition of linear and branched N-MeFOSAA isomers.

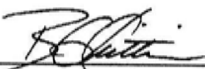
<sup>b</sup> See Table C for percent composition of linear and branched N-EtFOSAA isomers.

<sup>c</sup> See Table D for percent composition of linear and branched PFHxSK isomers.

<sup>d</sup> 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	Expires:	08/08/2027
Standard Type:	Other	Prepared:	08/05/2022
Solvent:	MeOH	Prepared By:	Dipti Gokal
Final Volume (mls):	1.2	Department:	PFAS
Vials:	1	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	Expires:	04/25/2023
Standard Type:	Analyte Spike	Prepared:	10/27/2022
Solvent:	MeOH	Prepared By:	Dipti Gokal
Final Volume (mls):	10	Department:	PFAS
Vials:	1	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:**

<b>Standard</b>	<b>Description</b>	<b>Prepared</b>	<b>Prepared By</b>	<b>Lot Nbr</b>	<b>Expires</b>	<b>Last Edit</b>	<b>(mls)</b>
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	Expires:	01/11/2025
Standard Type:	Analyte Spike	Prepared:	10/31/2022
Solvent:	MeOH 62244	Prepared By:	Dipti Gokal
Final Volume (mls):	6	Department:	PFAS
Vials:	1	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

# Analytical Standard Record

**22K0039**

Description:	PFAS - MIX 1633 10ng/mL	Expires:	05/01/2023
Standard Type:	Analyte Spike	Prepared:	11/02/2022
Solvent:	MeOH	Prepared By:	Andonios Karas
Final Volume (mls):	10	Department:	PFAS
Vials:	1	Last Edit:	11/02/2022 12:56 by ABK

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

**22K0039****Parent Standards used:**

<b>Standard</b>	<b>Description</b>	<b>Prepared</b>	<b>Prepared By</b>	<b>Lot Nbr</b>	<b>Expires</b>	<b>Last Edit</b>	<b>(mls)</b>
22J0552	PFAS - MIX 1633 200ng/mL	10/31/2022	In house	x	01/11/2025	10/31/2022 15:40 by DAG	0.5



# WELLINGTON LABORATORIES

## CERTIFICATE OF ANALYSIS DOCUMENTATION

### MPFAC-HIF-ES

#### Mass-Labelled PFAS Extraction Standard Solution/Mixture

<b><u>PRODUCT CODE:</u></b>	MPFAC-HIF-ES
<b><u>LOT NUMBER:</u></b>	MPFACHIFES0822
<b><u>SOLVENT(S):</u></b>	Methanol/Isopropanol (1%)/Water (<1%)
<b><u>DATE PREPARED:</u></b> (mm/dd/yyyy)	07/20/2022
<b><u>LAST TESTED:</u></b> (mm/dd/yyyy)	08/02/2022
<b><u>EXPIRY DATE:</u></b> (mm/dd/yyyy)	08/02/2025
<b><u>RECOMMENDED STORAGE:</u></b>	Refrigerate ampoule

#### **DESCRIPTION:**

MPFAC-HIF-ES is a solution/mixture of ten mass-labelled ( $^{13}\text{C}$ ) perfluoroalkylcarboxylic acids ( $\text{C}_4$ - $\text{C}_{12}$ ,  $\text{C}_{14}$ ), three mass-labelled ( $^{13}\text{C}$ ) perfluoroalkanesulfonates ( $\text{C}_4$ ,  $\text{C}_6$ , and  $\text{C}_8$ ), three mass-labelled (one  $^{13}\text{C}$  and two  $^2\text{H}$ ) perfluoro-1-octanesulfonamides, three mass-labelled ( $^{13}\text{C}$ ) fluorotelomer sulfonates (4:2, 6:2, and 8:2), two mass-labelled ( $^2\text{H}$ ) perfluorooctanesulfonamidoacetic acids, two mass-labelled ( $^2\text{H}$ ) perfluorooctanesulfonamidoethanols, and mass-labelled ( $^{13}\text{C}$ ) hexafluoropropylene oxide dimer acid (GenX, M3HFPO-DA). The components and their concentrations are given in Table A.

The individual  $^{13}\text{C}$ -labelled components all have chemical purities >98% and isotopic purities of  $\geq 99\%$ . The individual  $^2\text{H}$ -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.

**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



**Table A: MPFAC-HIF-ES; Components and Concentrations**  
(ng/mL, ± 5% in methanol/isopropanol (1%)/water (<1%))

Compound	Acronym	Concentration (ng/mL)		Peak Assignment in Figure 1
		as the salt	as the acid	
Perfluoro-n-( <sup>13</sup> C <sub>4</sub> )butanoic acid	MPFBA	2000		1
Perfluoro-n-( <sup>13</sup> C <sub>5</sub> )pentanoic acid	M5PFPeA	1000		2
Perfluoro-n-(1,2,3,4,6- <sup>13</sup> C <sub>5</sub> )hexanoic acid	M5PFHxA	500		5
Perfluoro-n-(1,2,3,4- <sup>13</sup> C <sub>4</sub> )heptanoic acid	M4PFHpA	500		7
Perfluoro-n-( <sup>13</sup> C <sub>8</sub> )octanoic acid	M8PFOA	500		10
Perfluoro-n-( <sup>13</sup> C <sub>9</sub> )nonanoic acid	M9PFNA	250		11
Perfluoro-n-(1,2,3,4,5,6- <sup>13</sup> C <sub>6</sub> )decanoic acid	M6PFDA	250		14
Perfluoro-n-(1,2,3,4,5,6,7- <sup>13</sup> C <sub>7</sub> )undecanoic acid	M7PFUdA	250		17
Perfluoro-n-(1,2- <sup>13</sup> C <sub>2</sub> )dodecanoic acid	MPFD <sub>o</sub> A	250		19
Perfluoro-n-(1,2- <sup>13</sup> C <sub>2</sub> )tetradecanoic acid	M2PFTeDA	250		23
Perfluoro-1-( <sup>13</sup> C <sub>8</sub> )octanesulfonamide	M8FOSA	500		18
N-methyl-d <sub>3</sub> -perfluoro-1-octanesulfonamide	d-N-MeFOSA	500		21
N-ethyl-d <sub>5</sub> -perfluoro-1-octanesulfonamide	d-N-EtFOSA	500		24
N-methyl-d <sub>3</sub> -perfluoro-1-octanesulfonamidoacetic acid	d3-N-MeFOSAA	1000		15
N-ethyl-d <sub>5</sub> -perfluoro-1-octanesulfonamidoacetic acid	d5-N-EtFOSAA	1000		16
2-(N-methyl-d <sub>3</sub> -perfluoro-1-octanesulfonamido)ethan-d <sub>4</sub> -ol	d7-N-MeFOSE	5000		20
2-(N-ethyl-d <sub>5</sub> -perfluoro-1-octanesulfonamido)ethan-d <sub>4</sub> -ol	d9-N-EtFOSE	5000		22
2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)( <sup>13</sup> C <sub>3</sub> )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- <sup>13</sup> C <sub>3</sub> )butanesulfonate	M3PFBS	500	466	3
Sodium perfluoro-1-(1,2,3- <sup>13</sup> C <sub>3</sub> )hexanesulfonate	M3PFHxS	500	474	8
Sodium perfluoro-1-( <sup>13</sup> C <sub>8</sub> )octanesulfonate	M8PFOS	500	479	12
Sodium 1H,1H,2H,2H-perfluoro-(1,2- <sup>13</sup> C <sub>2</sub> )hexanesulfonate	M2-4:2FTS	1000	938	4
Sodium 1H,1H,2H,2H-perfluoro-(1,2- <sup>13</sup> C <sub>2</sub> )octanesulfonate	M2-6:2FTS	1000	951	9
Sodium 1H,1H,2H,2H-perfluoro-(1,2- <sup>13</sup> C <sub>2</sub> )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

**22K0097**

Description:	MPFAC-HIF-ES-EIS	Expires:	08/02/2025
Standard Type:	Other	Prepared:	07/20/2022
Solvent:	meoh	Prepared By:	Wellington Laboratories (Lot#: MPFACHIFES0822)
Final Volume (mls):	1.2	Department:	MPFACHIFES0822)
Vials:	1	Last Edit:	11/04/2022 10:47 by DAG

Analyte	Parent	CAS Number	Concentration	Units
13C2-4:2FTS		13C2-4:2FTS	1	ug/mL
13C2-6:2FTS		13C2-6:2FTS	1	ug/mL
13C2-8:2FTS		13C2-8:2FTS	1	ug/mL
13C2-PFDOA		13C2-PFDOA	0.25	ug/mL
13C2-PFTEDA		13C2-PFTEDA	0.25	ug/mL
13C3-HFPO-DA		13C3-HFPO-DA	2	ug/mL
13C3-PFBS		13C3-PFBS	0.5	ug/mL
13C3-PFHXS		13C3-PFHXS	0.5	ug/mL
13C4-PFBA		13C4-PFBA	2	ug/mL
13C4-PFHPA		13C4-PFHPA	0.5	ug/mL
13C5-PFHXA		13C5-PFHXA	0.5	ug/mL
13C5-PFPEA		13C5-PFPEA	1	ug/mL
13C6-PFDA		13C6-PFDA	0.25	ug/mL
13C7-PFUnA		13C7-PFUDA	0.25	ug/mL
13C8-PFOA		13C8-PFOA	0.5	ug/mL
13C8-PFOS		13C8-PFOS	0.5	ug/mL
13C8-PFOSA		13C8-PFOSA	0.5	ug/mL
13C9-PFNA		13C9-PFNA	0.25	ug/mL
D3-NMEFOSA		D3-NMEFOSA	0.5	ug/mL
D3-NMEFOSAA		D3-NMEFOSAA	1	ug/mL
D5-NETFOSA		D5-NETFOSA	0.5	ug/mL
D5-NETFOSAA		D5-NETFOSAA	1	ug/mL
D7-NMEFOSE		D7-NMEFOSE	5	ug/mL
D9-NETFOSSE		D9-NETFOSSE	5	ug/mL



# WELLINGTON LABORATORIES

## CERTIFICATE OF ANALYSIS DOCUMENTATION

### MPFAC-HIF-ES

#### Mass-Labelled PFAS Extraction Standard Solution/Mixture

<b><u>PRODUCT CODE:</u></b>	MPFAC-HIF-ES
<b><u>LOT NUMBER:</u></b>	MPFACHIFES0822
<b><u>SOLVENT(S):</u></b>	Methanol/Isopropanol (1%)/Water (<1%)
<b><u>DATE PREPARED:</u></b> (mm/dd/yyyy)	07/20/2022
<b><u>LAST TESTED:</u></b> (mm/dd/yyyy)	08/02/2022
<b><u>EXPIRY DATE:</u></b> (mm/dd/yyyy)	08/02/2025
<b><u>RECOMMENDED STORAGE:</u></b>	Refrigerate ampoule

#### **DESCRIPTION:**

MPFAC-HIF-ES is a solution/mixture of ten mass-labelled ( $^{13}\text{C}$ ) perfluoroalkylcarboxylic acids ( $\text{C}_4$ - $\text{C}_{12}$ ,  $\text{C}_{14}$ ), three mass-labelled ( $^{13}\text{C}$ ) perfluoroalkanesulfonates ( $\text{C}_4$ ,  $\text{C}_6$ , and  $\text{C}_8$ ), three mass-labelled (one  $^{13}\text{C}$  and two  $^2\text{H}$ ) perfluoro-1-octanesulfonamides, three mass-labelled ( $^{13}\text{C}$ ) fluorotelomer sulfonates (4:2, 6:2, and 8:2), two mass-labelled ( $^2\text{H}$ ) perfluorooctanesulfonamidoacetic acids, two mass-labelled ( $^2\text{H}$ ) perfluorooctanesulfonamidoethanols, and mass-labelled ( $^{13}\text{C}$ ) hexafluoropropylene oxide dimer acid (GenX, M3HFPO-DA). The components and their concentrations are given in Table A.

The individual  $^{13}\text{C}$ -labelled components all have chemical purities >98% and isotopic purities of  $\geq 99\%$ . The individual  $^2\text{H}$ -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.


**FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE**

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**Table A: MPFAC-HIF-ES; Components and Concentrations**  
(ng/mL, ± 5% in methanol/isopropanol (1%)/water (<1%))

Compound	Acronym	Concentration (ng/mL)		Peak Assignment in Figure 1
		as the salt	as the acid	
Perfluoro-n-( <sup>13</sup> C <sub>4</sub> )butanoic acid	MPFBA	2000		1
Perfluoro-n-( <sup>13</sup> C <sub>5</sub> )pentanoic acid	M5PFPeA	1000		2
Perfluoro-n-(1,2,3,4,6- <sup>13</sup> C <sub>5</sub> )hexanoic acid	M5PFHxA	500		5
Perfluoro-n-(1,2,3,4- <sup>13</sup> C <sub>4</sub> )heptanoic acid	M4PFHpA	500		7
Perfluoro-n-( <sup>13</sup> C <sub>8</sub> )octanoic acid	M8PFOA	500		10
Perfluoro-n-( <sup>13</sup> C <sub>9</sub> )nonanoic acid	M9PFNA	250		11
Perfluoro-n-(1,2,3,4,5,6- <sup>13</sup> C <sub>6</sub> )decanoic acid	M6PFDA	250		14
Perfluoro-n-(1,2,3,4,5,6,7- <sup>13</sup> C <sub>7</sub> )undecanoic acid	M7PFUdA	250		17
Perfluoro-n-(1,2- <sup>13</sup> C <sub>2</sub> )dodecanoic acid	MPFD <sub>o</sub> A	250		19
Perfluoro-n-(1,2- <sup>13</sup> C <sub>2</sub> )tetradecanoic acid	M2PFTeDA	250		23
Perfluoro-1-( <sup>13</sup> C <sub>8</sub> )octanesulfonamide	M8FOSA	500		18
N-methyl-d <sub>3</sub> -perfluoro-1-octanesulfonamide	d-N-MeFOSA	500		21
N-ethyl-d <sub>5</sub> -perfluoro-1-octanesulfonamide	d-N-EtFOSA	500		24
N-methyl-d <sub>3</sub> -perfluoro-1-octanesulfonamidoacetic acid	d3-N-MeFOSAA	1000		15
N-ethyl-d <sub>5</sub> -perfluoro-1-octanesulfonamidoacetic acid	d5-N-EtFOSAA	1000		16
2-(N-methyl-d <sub>3</sub> -perfluoro-1-octanesulfonamido)ethan-d <sub>4</sub> -ol	d7-N-MeFOSE	5000		20
2-(N-ethyl-d <sub>5</sub> -perfluoro-1-octanesulfonamido)ethan-d <sub>4</sub> -ol	d9-N-EtFOSE	5000		22
2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)( <sup>13</sup> C <sub>3</sub> )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- <sup>13</sup> C <sub>3</sub> )butanesulfonate	M3PFBS	500	466	3
Sodium perfluoro-1-(1,2,3- <sup>13</sup> C <sub>3</sub> )hexanesulfonate	M3PFHxS	500	474	8
Sodium perfluoro-1-( <sup>13</sup> C <sub>8</sub> )octanesulfonate	M8PFOS	500	479	12
Sodium 1H,1H,2H,2H-perfluoro-(1,2- <sup>13</sup> C <sub>2</sub> )hexanesulfonate	M2-4:2FTS	1000	938	4
Sodium 1H,1H,2H,2H-perfluoro-(1,2- <sup>13</sup> C <sub>2</sub> )octanesulfonate	M2-6:2FTS	1000	951	9
Sodium 1H,1H,2H,2H-perfluoro-(1,2- <sup>13</sup> C <sub>2</sub> )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	Expires:	01/20/2023
Standard Type:	Internal Standard	Prepared:	11/28/2022
Solvent:	MeOH/62286	Prepared By:	Dipti Gokal
Final Volume (mls):	25	Department:	PFAS
Vials:	1	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	Expires:	01/20/2023
Standard Type:	Internal Standard	Prepared:	11/28/2022
Solvent:	MeOH/62286	Prepared By:	Dipti Gokal
Final Volume (mL):	2	Department:	PFAS
Vials:	1	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	(mL)
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

**22L0117**

Description:	MPFAC-HIF-ES 20.0ng/mL	Expires:	06/05/2023
Standard Type:	Surrogate Spike	Prepared:	12/07/2022
Solvent:	MeOH/62244	Prepared By:	Dipti Gokal
Final Volume (mls):	10	Department:	PFAS
Vials:	3	Last Edit:	12/07/2022 10:55 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	22K0097	13C2-4:2FTS	0.04	ug/mL
13C2-6:2FTS	22K0097	13C2-6:2FTS	0.04	ug/mL
13C2-8:2FTS	22K0097	13C2-8:2FTS	0.04	ug/mL
13C2-PFDOA	22K0097	13C2-PFDOA	0.01	ug/mL
13C2-PFTEDA	22K0097	13C2-PFTEDA	0.01	ug/mL
13C3-HFPO-DA	22K0097	13C3-HFPO-DA	0.08	ug/mL
13C3-PFBS	22K0097	13C3-PFBS	0.02	ug/mL
13C3-PFHXS	22K0097	13C3-PFHXS	0.02	ug/mL
13C4-PFBA	22K0097	13C4-PFBA	0.08	ug/mL
13C4-PFHPA	22K0097	13C4-PFHPA	0.02	ug/mL
13C5-PFHXA	22K0097	13C5-PFHXA	0.02	ug/mL
13C5-PFPEA	22K0097	13C5-PFPEA	0.04	ug/mL
13C6-PFDA	22K0097	13C6-PFDA	0.01	ug/mL
13C7-PFUhA	22K0097	13C7-PFUJA	0.01	ug/mL
13C8-PFOA	22K0097	13C8-PFOA	0.02	ug/mL
13C8-PFOS	22K0097	13C8-PFOS	0.02	ug/mL
13C8-PFOSA	22K0097	13C8-PFOSA	0.02	ug/mL
13C9-PFNA	22K0097	13C9-PFNA	0.01	ug/mL
D3-NMEFOSA	22K0097	D3-NMEFOSA	0.02	ug/mL
D3-NMEFOSAA	22K0097	D3-NMEFOSAA	0.04	ug/mL
D5-NETFOSA	22K0097	D5-NETFOSA	0.02	ug/mL
D5-NETFOSAA	22K0097	D5-NETFOSAA	0.04	ug/mL
D7-NMEFOSE	22K0097	D7-NMEFOSE	0.2	ug/mL
D9-NETFOSSE	22K0097	D9-NETFOSSE	0.2	ug/mL

**Parent Standards used:**

Standard	Description	Prepared	Prepared By	Lot Nbr	Expires	Last Edit	(mls)
22K0097	MPFAC-HIF-ES-EIS	07/20/2022	Wellington Laboratories	MPFACHIFES0822	08/02/2025	11/04/2022 12:17 by DAG	0.4

# Analytical Standard Record

**22L0269**

Description:	PFAS - MIX 1633 10ng/mL	Expires:	06/12/2023
Standard Type:	Analyte Spike	Prepared:	12/14/2022
Solvent:	MeOH	Prepared By:	Dipti Gokal
Final Volume (mls):	10	Department:	PFAS
Vials:	1	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:**

<b>Standard</b>	<b>Description</b>	<b>Prepared</b>	<b>Prepared By</b>	<b>Lot Nbr</b>	<b>Expires</b>	<b>Last Edit</b>	<b>(mls)</b>
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-PFHPA	22K0095	13C4-PFHPA	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