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Automated Report

Technical Report for

AECOM, INC.

N6274223F0104 RH Fire Suppression System

60697810

SGS Job Number: FC3763

Sampling Date: 03/27/23



Report to:

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Total number of pages in report: 47



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

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Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001)
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Test results relate only to samples analyzed.

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Sample Summary

AECOM, INC.

Job No: FC3763

N6274223F0104 RH Fire Suppression System
Project No: 60697810

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
FC3763-1	03/27/23	10:40 TM	03/28/23	AQ	Ground Water	AF-RHMW04-WGN01LF-2303W4
FC3763-2	03/27/23	11:25 ZD	03/28/23	AQ	Ground Water	AF-RHMW12A-WGN01LF-2303W4
FC3763-3	03/27/23	11:25 ZD	03/28/23	AQ	Ground Water	AF-RHMW12A-WGFD01LF-2303W4
FC3763-4	03/27/23	12:35 TM	03/28/23	AQ	Ground Water	AF-RHMW06-WGN01LF-2303W4
FC3763-5	03/27/23	13:50 ZD	03/28/23	AQ	Ground Water	AF-RHMW16-WGN01LF-2303W4

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: AECOM, INC.

Job No: FC3763

Site: N6274223F0104 RH Fire Suppression System

Report Date: 4/4/2023 3:10:23 PM

On 03/28/2023, 5 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 5.5 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC3763 was assigned to the project.

Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

MS Semi-volatiles By Method EPA DRAFT 1633

Matrix: AQ

Batch ID: OP96143

Sample(s) FC3763-3MS, FC3763-5DUP were used as the QC samples indicated.

SGS North America Inc. - Orlando certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc.- Orlando is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative prepared by:

Kim Benham, Client Services (*Signature on File*)

Summary of Hits

Job Number: FC3763
Account: AECOM, INC.
Project: N6274223F0104 RH Fire Suppression System
Collected: 03/27/23



Lab Sample ID	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
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FC3763-1 AF-RHMW04-WGN01LF-2303W4

No hits reported in this sample.

FC3763-2 AF-RHMW12A-WGN01LF-2303W4

Perfluoropentanoic acid	4.8 J	9.6	1.9	ng/l	EPA DRAFT 1633
Perfluorohexanoic acid	1.4 J	4.8	0.96	ng/l	EPA DRAFT 1633

FC3763-3 AF-RHMW12A-WGFD01LF-2303W4

Perfluoropentanoic acid	4.3 J	9.4	1.9	ng/l	EPA DRAFT 1633
Perfluorohexanoic acid	1.2 J	4.7	0.94	ng/l	EPA DRAFT 1633

FC3763-4 AF-RHMW06-WGN01LF-2303W4

No hits reported in this sample.

FC3763-5 AF-RHMW16-WGN01LF-2303W4

No hits reported in this sample.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	AF-RHMW04-WGN01LF-2303W4		
Lab Sample ID:	FC3763-1	Date Sampled:	03/27/23
Matrix:	AQ - Ground Water	Date Received:	03/28/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	Percent Solids:	n/a
Project:	N6274223F0104 RH Fire Suppression System		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6Q15825.D	1	03/30/23 22:41	MV	03/29/23 10:00	OP96143	S6Q237
Run #2							

Run #	Initial Volume	Final Volume
Run #1	560 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
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PERFLUOROALKYL CARBOXYLIC ACIDS

375-22-4	Perfluorobutanoic acid	3.6 U	18	3.6	1.7	ng/l	
2706-90-3	Perfluoropentanoic acid	1.8 U	8.9	1.8	0.84	ng/l	
307-24-4	Perfluorohexanoic acid	0.89 U	4.5	0.89	0.45	ng/l	
375-85-9	Perfluoroheptanoic acid	0.89 U	4.5	0.89	0.45	ng/l	
335-67-1	Perfluorooctanoic acid	0.89 U	4.5	0.89	0.45	ng/l	
375-95-1	Perfluorononanoic acid	1.8 U	4.5	1.8	0.54	ng/l	
335-76-2	Perfluorodecanoic acid	0.89 U	4.5	0.89	0.45	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	4.5	1.8	0.54	ng/l	
307-55-1	Perfluorododecanoic acid	1.8 U	4.5	1.8	0.54	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.8 U	4.5	1.8	0.75	ng/l	
376-06-7	Perfluorotetradecanoic acid	0.89 U	4.5	0.89	0.45	ng/l	

PERFLUOROALKYL SULFONIC ACIDS

375-73-5	Perfluorobutanesulfonic acid	0.89 U	4.5	0.89	0.45	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	3.6 U	4.5	3.6	1.0	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.8 U	4.5	1.8	0.62	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	0.89 U	4.5	0.89	0.45	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.8 U	4.5	1.8	0.48	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.8 U	4.5	1.8	0.51	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	4.5	1.8	0.57	ng/l	
79780-39-5	Perfluorododecanesulfonic aci	3.6 U	4.5	3.6	1.0	ng/l	

FLUOROTELOMER SULFONIC ACIDS

757124-72-4	4:2 Fluorotelomer sulfonate	7.1 U	18	7.1	2.9	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	7.1 U	18	7.1	3.1	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	7.1 U	18	7.1	3.7	ng/l	

PERFLUOROOCCTANE SULFONAMIDES

754-91-6	PFOSA	1.8 U	4.5	1.8	0.60	ng/l	
31506-32-8	MeFOSA	1.8 U	4.5	1.8	0.89	ng/l	
4151-50-2	EtFOSA	1.8 U	4.5	1.8	0.89	ng/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
 LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	AF-RHMW04-WGN01LF-2303W4		
Lab Sample ID:	FC3763-1	Date Sampled:	03/27/23
Matrix:	AQ - Ground Water	Date Received:	03/28/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	Percent Solids:	n/a
Project:	N6274223F0104 RH Fire Suppression System		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
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PERFLUOROOCCTANE SULFONAMIDOACETIC ACIDS

2355-31-9	MeFOSAA	3.6 U	4.5	3.6	0.89	ng/l	
2991-50-6	EtFOSAA	3.6 U	4.5	3.6	1.2	ng/l	

PERFLUOROOCCTANE SULFONAMIDO ETHANOLS

24448-09-7	MeFOSE	8.9 U	45	8.9	3.9	ng/l	
1691-99-2	EtFOSE	18 U	45	18	6.6	ng/l	

PER and POLYFLUOROETHER CARBOXYLIC ACIDS

13252-13-6	HFPO-DA (GenX)	3.6 U	18	3.6	0.89	ng/l	
919005-14-4	ADONA	3.6 U	18	3.6	1.7	ng/l	
377-73-1	PFMPA	1.8 U	8.9	1.8	0.89	ng/l	
863090-89-5	PFMBA	3.6 U	8.9	3.6	1.0	ng/l	
151772-58-6	NFDHA	3.6 U	8.9	3.6	1.1	ng/l	

PER and POLYFLUOROETHER SULFONIC ACIDS

756426-58-1	9Cl-PF3ONS (F-53B Major)	3.6 U	18	3.6	1.2	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.6 U	18	3.6	1.6	ng/l	
113507-82-7	PFEESA	1.8 U	8.9	1.8	0.70	ng/l	

FLUOROTELOMER CARBOXYLIC ACIDS

356-02-5	3:3 Fluorotelomer carboxylate	8.9 U	22	8.9	4.0	ng/l	
914637-49-3	5:3 Fluorotelomer carboxylate	18 U	110	18	7.8	ng/l	
812-70-4	7:3 Fluorotelomer carboxylate	18 U	110	18	7.0	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	108%		20-150%
	13C5-PFPeA	109%		20-150%
	13C5-PFHxA	106%		20-150%
	13C4-PFHpA	107%		20-150%
	13C8-PFOA	108%		20-150%
	13C9-PFNA	109%		20-150%
	13C6-PFDA	98%		20-150%
	13C7-PFUnDA	80%		20-150%
	13C2-PFDoDA	73%		20-150%
	13C2-PFTeDA	71%		20-150%
	13C3-PFBS	117%		20-150%
	13C3-PFHxS	108%		20-150%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
 LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	AF-RHMW04-WGN01LF-2303W4	
Lab Sample ID:	FC3763-1	Date Sampled: 03/27/23
Matrix:	AQ - Ground Water	Date Received: 03/28/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	Percent Solids: n/a
Project:	N6274223F0104 RH Fire Suppression System	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	109%		20-150%
	13C8-FOSA	99%		20-150%
	d3-MeFOSA	79%		20-150%
	d5-EtFOSA	74%		20-150%
	d3-MeFOSAA	107%		20-150%
	d5-EtFOSAA	98%		20-150%
	d7-MeFOSE	83%		20-150%
	d9-EtFOSE	84%		20-150%
	13C2-4:2FTS	123%		20-150%
	13C2-6:2FTS	123%		20-150%
	13C2-8:2FTS	117%		20-150%
	13C3-HFPO-DA	108%		20-150%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
 LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	AF-RHMW12A-WGN01LF-2303W4		
Lab Sample ID:	FC3763-2	Date Sampled:	03/27/23
Matrix:	AQ - Ground Water	Date Received:	03/28/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	Percent Solids:	n/a
Project:	N6274223F0104 RH Fire Suppression System		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6Q15826.D	1	03/30/23 22:55	MV	03/29/23 10:00	OP96143	S6Q237
Run #2							

Run #	Initial Volume	Final Volume
Run #1	520 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
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PERFLUOROALKYL CARBOXYLIC ACIDS

375-22-4	Perfluorobutanoic acid	3.8 U	19	3.8	1.8	ng/l	
2706-90-3	Perfluoropentanoic acid	4.8	9.6	1.9	0.90	ng/l	J
307-24-4	Perfluorohexanoic acid	1.4	4.8	0.96	0.48	ng/l	J
375-85-9	Perfluoroheptanoic acid	0.96 U	4.8	0.96	0.48	ng/l	
335-67-1	Perfluorooctanoic acid	0.96 U	4.8	0.96	0.48	ng/l	
375-95-1	Perfluorononanoic acid	1.9 U	4.8	1.9	0.59	ng/l	
335-76-2	Perfluorodecanoic acid	0.96 U	4.8	0.96	0.48	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.9 U	4.8	1.9	0.58	ng/l	
307-55-1	Perfluorododecanoic acid	1.9 U	4.8	1.9	0.58	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.9 U	4.8	1.9	0.81	ng/l	
376-06-7	Perfluorotetradecanoic acid	0.96 U	4.8	0.96	0.48	ng/l	

PERFLUOROALKYL SULFONIC ACIDS

375-73-5	Perfluorobutanesulfonic acid	0.96 U	4.8	0.96	0.48	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	3.8 U	4.8	3.8	1.1	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.9 U	4.8	1.9	0.67	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	0.96 U	4.8	0.96	0.48	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.9 U	4.8	1.9	0.52	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.9 U	4.8	1.9	0.55	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.9 U	4.8	1.9	0.62	ng/l	
79780-39-5	Perfluorododecanesulfonic aci	3.8 U	4.8	3.8	1.1	ng/l	

FLUOROTELOMER SULFONIC ACIDS

757124-72-4	4:2 Fluorotelomer sulfonate	7.7 U	19	7.7	3.1	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	7.7 U	19	7.7	3.3	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	7.7 U	19	7.7	4.0	ng/l	

PERFLUOROOCCTANE SULFONAMIDES

754-91-6	PFOSA	1.9 U	4.8	1.9	0.64	ng/l	
31506-32-8	MeFOSA	1.9 U	4.8	1.9	0.96	ng/l	
4151-50-2	EtFOSA	1.9 U	4.8	1.9	0.96	ng/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
 LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	AF-RHMW12A-WGN01LF-2303W4		
Lab Sample ID:	FC3763-2	Date Sampled:	03/27/23
Matrix:	AQ - Ground Water	Date Received:	03/28/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	Percent Solids:	n/a
Project:	N6274223F0104 RH Fire Suppression System		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
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PERFLUOROOCCTANE SULFONAMIDOACETIC ACIDS

2355-31-9	MeFOSAA	3.8 U	4.8	3.8	0.96	ng/l	
2991-50-6	EtFOSAA	3.8 U	4.8	3.8	1.3	ng/l	

PERFLUOROOCCTANE SULFONAMIDO ETHANOLS

24448-09-7	MeFOSE	9.6 U	48	9.6	4.2	ng/l	
1691-99-2	EtFOSE	19 U	48	19	7.1	ng/l	

PER and POLYFLUOROETHER CARBOXYLIC ACIDS

13252-13-6	HFPO-DA (GenX)	3.8 U	19	3.8	0.96	ng/l	
919005-14-4	ADONA	3.8 U	19	3.8	1.8	ng/l	
377-73-1	PFMPA	1.9 U	9.6	1.9	0.96	ng/l	
863090-89-5	PFMBA	3.8 U	9.6	3.8	1.1	ng/l	
151772-58-6	NFDHA	3.8 U	9.6	3.8	1.2	ng/l	

PER and POLYFLUOROETHER SULFONIC ACIDS

756426-58-1	9Cl-PF3ONS (F-53B Major)	3.8 U	19	3.8	1.3	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.8 U	19	3.8	1.7	ng/l	
113507-82-7	PFEESA	1.9 U	9.6	1.9	0.75	ng/l	

FLUOROTELOMER CARBOXYLIC ACIDS

356-02-5	3:3 Fluorotelomer carboxylate	9.6 U	24	9.6	4.3	ng/l	
914637-49-3	5:3 Fluorotelomer carboxylate	19 U	120	19	8.4	ng/l	
812-70-4	7:3 Fluorotelomer carboxylate	19 U	120	19	7.5	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
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	13C4-PFBA	108%		20-150%
	13C5-PFPeA	103%		20-150%
	13C5-PFHxA	104%		20-150%
	13C4-PFHpA	105%		20-150%
	13C8-PFOA	110%		20-150%
	13C9-PFNA	97%		20-150%
	13C6-PFDA	102%		20-150%
	13C7-PFUnDA	92%		20-150%
	13C2-PFDoDA	78%		20-150%
	13C2-PFTeDA	80%		20-150%
	13C3-PFBS	115%		20-150%
	13C3-PFHxS	107%		20-150%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
 LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	AF-RHMW12A-WGN01LF-2303W4		
Lab Sample ID:	FC3763-2	Date Sampled:	03/27/23
Matrix:	AQ - Ground Water	Date Received:	03/28/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	Percent Solids:	n/a
Project:	N6274223F0104 RH Fire Suppression System		

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	102%		20-150%
	13C8-FOSA	96%		20-150%
	d3-MeFOSA	75%		20-150%
	d5-EtFOSA	79%		20-150%
	d3-MeFOSAA	93%		20-150%
	d5-EtFOSAA	94%		20-150%
	d7-MeFOSE	74%		20-150%
	d9-EtFOSE	76%		20-150%
	13C2-4:2FTS	122%		20-150%
	13C2-6:2FTS	114%		20-150%
	13C2-8:2FTS	106%		20-150%
	13C3-HFPO-DA	106%		20-150%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
 LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	AF-RHMW12A-WGFD01LF-2303W4		
Lab Sample ID:	FC3763-3	Date Sampled:	03/27/23
Matrix:	AQ - Ground Water	Date Received:	03/28/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	Percent Solids:	n/a
Project:	N6274223F0104 RH Fire Suppression System		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6Q15827.D	1	03/30/23 23:09	MV	03/29/23 10:00	OP96143	S6Q237
Run #2							

Run #	Initial Volume	Final Volume
Run #1	530 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
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PERFLUOROALKYL CARBOXYLIC ACIDS

375-22-4	Perfluorobutanoic acid	3.8 U	19	3.8	1.8	ng/l	
2706-90-3	Perfluoropentanoic acid	4.3	9.4	1.9	0.89	ng/l	J
307-24-4	Perfluorohexanoic acid	1.2	4.7	0.94	0.47	ng/l	J
375-85-9	Perfluoroheptanoic acid	0.94 U	4.7	0.94	0.47	ng/l	
335-67-1	Perfluorooctanoic acid	0.94 U	4.7	0.94	0.47	ng/l	
375-95-1	Perfluorononanoic acid	1.9 U	4.7	1.9	0.58	ng/l	
335-76-2	Perfluorodecanoic acid	0.94 U	4.7	0.94	0.47	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.9 U	4.7	1.9	0.57	ng/l	
307-55-1	Perfluorododecanoic acid	1.9 U	4.7	1.9	0.57	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.9 U	4.7	1.9	0.79	ng/l	
376-06-7	Perfluorotetradecanoic acid	0.94 U	4.7	0.94	0.47	ng/l	

PERFLUOROALKYL SULFONIC ACIDS

375-73-5	Perfluorobutanesulfonic acid	0.94 U	4.7	0.94	0.47	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	3.8 U	4.7	3.8	1.1	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.9 U	4.7	1.9	0.66	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	0.94 U	4.7	0.94	0.47	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.9 U	4.7	1.9	0.51	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.9 U	4.7	1.9	0.54	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.9 U	4.7	1.9	0.60	ng/l	
79780-39-5	Perfluorododecanesulfonic aci	3.8 U	4.7	3.8	1.1	ng/l	

FLUOROTELOMER SULFONIC ACIDS

757124-72-4	4:2 Fluorotelomer sulfonate	7.5 U	19	7.5	3.0	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	7.5 U	19	7.5	3.3	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	7.5 U	19	7.5	3.9	ng/l	

PERFLUOROOCCTANE SULFONAMIDES

754-91-6	PFOSA	1.9 U	4.7	1.9	0.63	ng/l	
31506-32-8	MeFOSA	1.9 U	4.7	1.9	0.94	ng/l	
4151-50-2	EtFOSA	1.9 U	4.7	1.9	0.94	ng/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
 LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	AF-RHMW12A-WGFD01LF-2303W4		
Lab Sample ID:	FC3763-3	Date Sampled:	03/27/23
Matrix:	AQ - Ground Water	Date Received:	03/28/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	Percent Solids:	n/a
Project:	N6274223F0104 RH Fire Suppression System		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
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PERFLUOROOCCTANE SULFONAMIDOACETIC ACIDS

2355-31-9	MeFOSAA	3.8 U	4.7	3.8	0.94	ng/l	
2991-50-6	EtFOSAA	3.8 U	4.7	3.8	1.3	ng/l	

PERFLUOROOCCTANE SULFONAMIDO ETHANOLS

24448-09-7	MeFOSE	9.4 U	47	9.4	4.1	ng/l	
1691-99-2	EtFOSE	19 U	47	19	7.0	ng/l	

PER and POLYFLUOROETHER CARBOXYLIC ACIDS

13252-13-6	HFPO-DA (GenX)	3.8 U	19	3.8	0.94	ng/l	
919005-14-4	ADONA	3.8 U	19	3.8	1.8	ng/l	
377-73-1	PFMPA	1.9 U	9.4	1.9	0.94	ng/l	
863090-89-5	PFMBA	3.8 U	9.4	3.8	1.1	ng/l	
151772-58-6	NFDHA	3.8 U	9.4	3.8	1.1	ng/l	

PER and POLYFLUOROETHER SULFONIC ACIDS

756426-58-1	9Cl-PF3ONS (F-53B Major)	3.8 U	19	3.8	1.3	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.8 U	19	3.8	1.7	ng/l	
113507-82-7	PFEESA	1.9 U	9.4	1.9	0.74	ng/l	

FLUOROTELOMER CARBOXYLIC ACIDS

356-02-5	3:3 Fluorotelomer carboxylate	9.4 U	24	9.4	4.3	ng/l	
914637-49-3	5:3 Fluorotelomer carboxylate	19 U	120	19	8.2	ng/l	
812-70-4	7:3 Fluorotelomer carboxylate	19 U	120	19	7.4	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
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	13C4-PFBA	107%		20-150%
	13C5-PFPeA	110%		20-150%
	13C5-PFHxA	114%		20-150%
	13C4-PFHpA	107%		20-150%
	13C8-PFOA	107%		20-150%
	13C9-PFNA	94%		20-150%
	13C6-PFDA	111%		20-150%
	13C7-PFUnDA	96%		20-150%
	13C2-PFDoDA	89%		20-150%
	13C2-PFTeDA	84%		20-150%
	13C3-PFBS	114%		20-150%
	13C3-PFHxS	108%		20-150%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
 LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	AF-RHMW12A-WGFD01LF-2303W4	
Lab Sample ID:	FC3763-3	Date Sampled: 03/27/23
Matrix:	AQ - Ground Water	Date Received: 03/28/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	Percent Solids: n/a
Project:	N6274223F0104 RH Fire Suppression System	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	104%		20-150%
	13C8-FOSA	107%		20-150%
	d3-MeFOSA	99%		20-150%
	d5-EtFOSA	97%		20-150%
	d3-MeFOSAA	118%		20-150%
	d5-EtFOSAA	116%		20-150%
	d7-MeFOSE	92%		20-150%
	d9-EtFOSE	98%		20-150%
	13C2-4:2FTS	132%		20-150%
	13C2-6:2FTS	130%		20-150%
	13C2-8:2FTS	111%		20-150%
	13C3-HFPO-DA	110%		20-150%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
 LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	AF-RHMW06-WGN01LF-2303W4		
Lab Sample ID:	FC3763-4	Date Sampled:	03/27/23
Matrix:	AQ - Ground Water	Date Received:	03/28/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	Percent Solids:	n/a
Project:	N6274223F0104 RH Fire Suppression System		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6Q15829.D	1	03/30/23 23:36	MV	03/29/23 10:00	OP96143	S6Q237
Run #2							

Run #	Initial Volume	Final Volume
Run #1	560 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
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PERFLUOROALKYL CARBOXYLIC ACIDS

375-22-4	Perfluorobutanoic acid	3.6 U	18	3.6	1.7	ng/l	
2706-90-3	Perfluoropentanoic acid	1.8 U	8.9	1.8	0.84	ng/l	
307-24-4	Perfluorohexanoic acid	0.89 U	4.5	0.89	0.45	ng/l	
375-85-9	Perfluoroheptanoic acid	0.89 U	4.5	0.89	0.45	ng/l	
335-67-1	Perfluorooctanoic acid	0.89 U	4.5	0.89	0.45	ng/l	
375-95-1	Perfluorononanoic acid	1.8 U	4.5	1.8	0.54	ng/l	
335-76-2	Perfluorodecanoic acid	0.89 U	4.5	0.89	0.45	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	4.5	1.8	0.54	ng/l	
307-55-1	Perfluorododecanoic acid	1.8 U	4.5	1.8	0.54	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.8 U	4.5	1.8	0.75	ng/l	
376-06-7	Perfluorotetradecanoic acid	0.89 U	4.5	0.89	0.45	ng/l	

PERFLUOROALKYL SULFONIC ACIDS

375-73-5	Perfluorobutanesulfonic acid	0.89 U	4.5	0.89	0.45	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	3.6 U	4.5	3.6	1.0	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.8 U	4.5	1.8	0.62	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	0.89 U	4.5	0.89	0.45	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.8 U	4.5	1.8	0.48	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.8 U	4.5	1.8	0.51	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	4.5	1.8	0.57	ng/l	
79780-39-5	Perfluorododecanesulfonic aci	3.6 U	4.5	3.6	1.0	ng/l	

FLUOROTELOMER SULFONIC ACIDS

757124-72-4	4:2 Fluorotelomer sulfonate	7.1 U	18	7.1	2.9	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	7.1 U	18	7.1	3.1	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	7.1 U	18	7.1	3.7	ng/l	

PERFLUOROOCCTANE SULFONAMIDES

754-91-6	PFOSA	1.8 U	4.5	1.8	0.60	ng/l	
31506-32-8	MeFOSA	1.8 U	4.5	1.8	0.89	ng/l	
4151-50-2	EtFOSA	1.8 U	4.5	1.8	0.89	ng/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
 LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	AF-RHMW06-WGN01LF-2303W4		
Lab Sample ID:	FC3763-4	Date Sampled:	03/27/23
Matrix:	AQ - Ground Water	Date Received:	03/28/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	Percent Solids:	n/a
Project:	N6274223F0104 RH Fire Suppression System		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
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PERFLUOROOCCTANE SULFONAMIDOACETIC ACIDS

2355-31-9	MeFOSAA	3.6 U	4.5	3.6	0.89	ng/l	
2991-50-6	EtFOSAA	3.6 U	4.5	3.6	1.2	ng/l	

PERFLUOROOCCTANE SULFONAMIDO ETHANOLS

24448-09-7	MeFOSE	8.9 U	45	8.9	3.9	ng/l	
1691-99-2	EtFOSE	18 U	45	18	6.6	ng/l	

PER and POLYFLUOROETHER CARBOXYLIC ACIDS

13252-13-6	HFPO-DA (GenX)	3.6 U	18	3.6	0.89	ng/l	
919005-14-4	ADONA	3.6 U	18	3.6	1.7	ng/l	
377-73-1	PFMPA	1.8 U	8.9	1.8	0.89	ng/l	
863090-89-5	PFMBA	3.6 U	8.9	3.6	1.0	ng/l	
151772-58-6	NFDHA	3.6 U	8.9	3.6	1.1	ng/l	

PER and POLYFLUOROETHER SULFONIC ACIDS

756426-58-1	9Cl-PF3ONS (F-53B Major)	3.6 U	18	3.6	1.2	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.6 U	18	3.6	1.6	ng/l	
113507-82-7	PFEESA	1.8 U	8.9	1.8	0.70	ng/l	

FLUOROTELOMER CARBOXYLIC ACIDS

356-02-5	3:3 Fluorotelomer carboxylate	8.9 U	22	8.9	4.0	ng/l	
914637-49-3	5:3 Fluorotelomer carboxylate	18 U	110	18	7.8	ng/l	
812-70-4	7:3 Fluorotelomer carboxylate	18 U	110	18	7.0	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	116%		20-150%
	13C5-PFPeA	111%		20-150%
	13C5-PFHxA	109%		20-150%
	13C4-PFHpA	112%		20-150%
	13C8-PFOA	118%		20-150%
	13C9-PFNA	101%		20-150%
	13C6-PFDA	106%		20-150%
	13C7-PFUnDA	100%		20-150%
	13C2-PFDoDA	90%		20-150%
	13C2-PFTeDA	80%		20-150%
	13C3-PFBS	123%		20-150%
	13C3-PFHxS	110%		20-150%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
 LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	AF-RHMW06-WGN01LF-2303W4		Date Sampled:	03/27/23
Lab Sample ID:	FC3763-4		Date Received:	03/28/23
Matrix:	AQ - Ground Water		Percent Solids:	n/a
Method:	EPA DRAFT 1633 EPA 1633 DRAFT			
Project:	N6274223F0104 RH Fire Suppression System			

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	110%		20-150%
	13C8-FOSA	101%		20-150%
	d3-MeFOSA	97%		20-150%
	d5-EtFOSA	99%		20-150%
	d3-MeFOSAA	110%		20-150%
	d5-EtFOSAA	110%		20-150%
	d7-MeFOSE	96%		20-150%
	d9-EtFOSE	100%		20-150%
	13C2-4:2FTS	133%		20-150%
	13C2-6:2FTS	122%		20-150%
	13C2-8:2FTS	130%		20-150%
	13C3-HFPO-DA	109%		20-150%

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	AF-RHMW16-WGN01LF-2303W4		
Lab Sample ID:	FC3763-5	Date Sampled:	03/27/23
Matrix:	AQ - Ground Water	Date Received:	03/28/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	Percent Solids:	n/a
Project:	N6274223F0104 RH Fire Suppression System		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6Q15830.D	1	03/30/23 23:50	MV	03/29/23 10:00	OP96143	S6Q237
Run #2							

Run #	Initial Volume	Final Volume
Run #1	560 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
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PERFLUOROALKYL CARBOXYLIC ACIDS

375-22-4	Perfluorobutanoic acid	3.6 U	18	3.6	1.7	ng/l	
2706-90-3	Perfluoropentanoic acid	1.8 U	8.9	1.8	0.84	ng/l	
307-24-4	Perfluorohexanoic acid	0.89 U	4.5	0.89	0.45	ng/l	
375-85-9	Perfluoroheptanoic acid	0.89 U	4.5	0.89	0.45	ng/l	
335-67-1	Perfluorooctanoic acid	0.89 U	4.5	0.89	0.45	ng/l	
375-95-1	Perfluorononanoic acid	1.8 U	4.5	1.8	0.54	ng/l	
335-76-2	Perfluorodecanoic acid	0.89 U	4.5	0.89	0.45	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	4.5	1.8	0.54	ng/l	
307-55-1	Perfluorododecanoic acid	1.8 U	4.5	1.8	0.54	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.8 U	4.5	1.8	0.75	ng/l	
376-06-7	Perfluorotetradecanoic acid	0.89 U	4.5	0.89	0.45	ng/l	

PERFLUOROALKYL SULFONIC ACIDS

375-73-5	Perfluorobutanesulfonic acid	0.89 U	4.5	0.89	0.45	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	3.6 U	4.5	3.6	1.0	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.8 U	4.5	1.8	0.62	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	0.89 U	4.5	0.89	0.45	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.8 U	4.5	1.8	0.48	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.8 U	4.5	1.8	0.51	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	4.5	1.8	0.57	ng/l	
79780-39-5	Perfluorododecanesulfonic aci	3.6 U	4.5	3.6	1.0	ng/l	

FLUOROTELOMER SULFONIC ACIDS

757124-72-4	4:2 Fluorotelomer sulfonate	7.1 U	18	7.1	2.9	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	7.1 U	18	7.1	3.1	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	7.1 U	18	7.1	3.7	ng/l	

PERFLUOROOCCTANE SULFONAMIDES

754-91-6	PFOSA	1.8 U	4.5	1.8	0.60	ng/l	
31506-32-8	MeFOSA	1.8 U	4.5	1.8	0.89	ng/l	
4151-50-2	EtFOSA	1.8 U	4.5	1.8	0.89	ng/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
 LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.5
4

Report of Analysis

Client Sample ID:	AF-RHMW16-WGN01LF-2303W4		Date Sampled:	03/27/23
Lab Sample ID:	FC3763-5	Date Received:	03/28/23	
Matrix:	AQ - Ground Water	Percent Solids:	n/a	
Method:	EPA DRAFT 1633 EPA 1633 DRAFT			
Project:	N6274223F0104 RH Fire Suppression System			

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
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PERFLUOROOCCTANE SULFONAMIDOACETIC ACIDS

2355-31-9	MeFOSAA	3.6 U	4.5	3.6	0.89	ng/l	
2991-50-6	EtFOSAA	3.6 U	4.5	3.6	1.2	ng/l	

PERFLUOROOCCTANE SULFONAMIDO ETHANOLS

24448-09-7	MeFOSE	8.9 U	45	8.9	3.9	ng/l	
1691-99-2	EtFOSE	18 U	45	18	6.6	ng/l	

PER and POLYFLUOROETHER CARBOXYLIC ACIDS

13252-13-6	HFPO-DA (GenX)	3.6 U	18	3.6	0.89	ng/l	
919005-14-4	ADONA	3.6 U	18	3.6	1.7	ng/l	
377-73-1	PFMPA	1.8 U	8.9	1.8	0.89	ng/l	
863090-89-5	PFMBA	3.6 U	8.9	3.6	1.0	ng/l	
151772-58-6	NFDHA	3.6 U	8.9	3.6	1.1	ng/l	

PER and POLYFLUOROETHER SULFONIC ACIDS

756426-58-1	9Cl-PF3ONS (F-53B Major)	3.6 U	18	3.6	1.2	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.6 U	18	3.6	1.6	ng/l	
113507-82-7	PFEESA	1.8 U	8.9	1.8	0.70	ng/l	

FLUOROTELOMER CARBOXYLIC ACIDS

356-02-5	3:3 Fluorotelomer carboxylate	8.9 U	22	8.9	4.0	ng/l	
914637-49-3	5:3 Fluorotelomer carboxylate	18 U	110	18	7.8	ng/l	
812-70-4	7:3 Fluorotelomer carboxylate	18 U	110	18	7.0	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	110%		20-150%
	13C5-PFPeA	114%		20-150%
	13C5-PFHxA	112%		20-150%
	13C4-PFHpA	114%		20-150%
	13C8-PFOA	108%		20-150%
	13C9-PFNA	114%		20-150%
	13C6-PFDA	96%		20-150%
	13C7-PFUnDA	92%		20-150%
	13C2-PFDoDA	84%		20-150%
	13C2-PFTeDA	86%		20-150%
	13C3-PFBS	116%		20-150%
	13C3-PFHxS	117%		20-150%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
 LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

4.5
4

Report of Analysis

Client Sample ID:	AF-RHMW16-WGN01LF-2303W4	
Lab Sample ID:	FC3763-5	Date Sampled: 03/27/23
Matrix:	AQ - Ground Water	Date Received: 03/28/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	Percent Solids: n/a
Project:	N6274223F0104 RH Fire Suppression System	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	100%		20-150%
	13C8-FOSA	101%		20-150%
	d3-MeFOSA	90%		20-150%
	d5-EtFOSA	92%		20-150%
	d3-MeFOSAA	110%		20-150%
	d5-EtFOSAA	106%		20-150%
	d7-MeFOSE	85%		20-150%
	d9-EtFOSE	88%		20-150%
	13C2-4:2FTS	129%		20-150%
	13C2-6:2FTS	121%		20-150%
	13C2-8:2FTS	133%		20-150%
	13C3-HFPO-DA	115%		20-150%

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
 LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits



SGS North America Inc - Orlando
Chain of Custody

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FC3763

SGS - ORLANDO JOB #:

COC #: 2303W4AFSG06

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Client / Reporting Information		Project Information		SGS - ORLANDO Quote #		SKIFF #												
Company Name: AECOM		Project Name: N6274223F0104 RH Fire Suppression System																
Address: 1001 Bishop St. ste 1600		Street																
City: Honolulu	State: HI	Zip: 96813	City: Honolulu	State: Hawaii														
Project Contact: Katie Abbott Email: katie.abbott@aecom.com		Project # 60697810																
Project Manager: Watson Tanji Email: watson.tanji@aecom.com		Fax #																
Phone #: 303-796-4624 / 808-954-4512		Client Purchase Order #																
Sampler(s) Name(s) (Printed)																		
Sampler 1:		Sampler 2:																
SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION			CONTAINER INFORMATION										PFAS EPA Draft 1633	Analytical Information	Matrix Codes	
		DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH-Zn/C	DI WATER				MECH
5	AF-RHMW16-WGN01LF-2303W4	3/27/23	1350	ZS	GW	3			X									
Turnaround Time (Business days)		Data Deliverable Information		Comments / Remarks														
10 Day (Business) Approved By: / Date: 7 Day <input checked="" type="checkbox"/> 5 Day 3 Day RUSH 2 Day RUSH 1 Day RUSH Other		<input type="checkbox"/> COMMERCIAL "A" (RESULTS ONLY) <input type="checkbox"/> COMMERCIAL "B" (RESULTS PLUS QC) <input type="checkbox"/> REDT1 (EPA LEVEL 3) <input checked="" type="checkbox"/> FULLT1 (EPA LEVEL 4) <input checked="" type="checkbox"/> EDD'S		EDMS upload database: JBPHE EDMS Coverage: AFFF Assessment Sampling GW United AWB - 016 75392973														
Rush T/A Data Available VIA Email or Lablink																		
Sample Custody must be documented below each time samples change possession, including courier delivery.																		
Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:											
1 [Signature]	3/27/23 1505	2 [Signature] AECOM	3 [Signature] AECOM	3/27/23 1535	4 [Signature] 3/28/23	5												
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:											
5		6	7		8	1500												
Lab Use Only: Cooler Temperature (s) Celsius (corrected):		3.6 IR#1		http://www.sgs.com/en/terms-and-conditions														

PFAS_COCs_ALL.xls Rev 031318

FC3763: Chain of Custody

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SGS Sample Receipt Summary

Job Number: FC3763

Client: AECOM

Project: N6274223F0104 RH Fire Suppression System

Date / Time Received: 3/28/2023 3:00:00 PM

Delivery Method: United Cargo/Airspace

Airbill #'s: United Cargo AWB #: 016-75392973

Therm ID: IR 1;

Therm CF: -0.1;

of Coolers: 1

Cooler Temps (Raw Measured) °C: Cooler 1: (5.6);

Cooler Temps (Corrected) °C: Cooler 1: (5.5);

Cooler Information

Y or N

- 1. Custody Seals Present
- 2. Custody Seals Intact
- 3. Temp criteria achieved
- 4. Cooler temp verification IR Gun
- 5. Cooler media Ice (Bag)

Trip Blank Information

Y or N

N/A

- 1. Trip Blank present / cooler
 - 2. Trip Blank listed on COC
- W or S N/A
- 3. Type Of TB Received

Sample Information

Y or N

N/A

- 1. Sample labels present on bottles
- 2. Samples preserved properly
- 3. Sufficient volume/containers recvd for analysis:
- 4. Condition of sample Intact
- 5. Sample recvd within HT
- 6. Dates/Times/IDs on COC match Sample Label
- 7. VOCs have headspace
- 8. Bottles received for unspecified tests
- 9. Compositing instructions clear
- 10. Voa Soil Kits/Jars received past 48hrs?
- 11. % Solids Jar received?
- 12. Residual Chlorine Present?

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____

Number of 5035 Field Kits: _____

Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230320

pH 10-12 25BDH07

Other: (Specify) pH 1.0 - 12.0 222221

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: NATHANS

Date: 3/28/2023 3:00:00 PM

Reviewer: CD

Date: 3/31/2023

FC3763: Chain of Custody

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QC Evaluation: DOD QSM5.x Limits

Job Number: FC3763
Account: AECOM, INC.
Project: N6274223F0104 RH Fire Suppression System
Collected: 03/27/23

QC Sample ID	CAS#	Analyte	Sample Result Type	Result Type	Units	Limits
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No DOD QSM5.x Limits found for methods in this job.

* Sample used for QC is not from job FC3763

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5

MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Instrument Blank

Job Number: FC3763
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q237-IBLK	6Q15787.D	1	03/30/23	MV	n/a	n/a	S6Q237

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3763-1, FC3763-2, FC3763-3, FC3763-4, FC3763-5

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.0040	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0010	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0020	0.00050	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0020	0.00050	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0020	0.00050	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0020	0.00061	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0020	0.00050	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0020	0.00060	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0020	0.00060	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0020	0.00084	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0020	0.00050	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0020	0.0010	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0020	0.0011	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0020	0.0010	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0020	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0020	0.0010	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0020	0.0010	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0020	0.0010	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0020	0.0011	ug/l	
757124-72-44:2	Fluorotelomer sulfonate	ND	0.0080	0.0040	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0080	0.0040	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0080	0.0041	ug/l	
754-91-6	PFOSA	ND	0.0020	0.0010	ug/l	
31506-32-8	MeFOSA	ND	0.0020	0.0010	ug/l	
4151-50-2	EtFOSA	ND	0.0020	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0020	0.0010	ug/l	
2991-50-6	EtFOSAA	ND	0.0020	0.0013	ug/l	
24448-09-7	MeFOSE	ND	0.020	0.010	ug/l	
1691-99-2	EtFOSE	ND	0.020	0.010	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0080	0.0020	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0020	ug/l	
377-73-1	PFMPA	ND	0.0040	0.0010	ug/l	
863090-89-5	PFMBA	ND	0.0040	0.0011	ug/l	
151772-58-6	NFDHA	ND	0.0040	0.0012	ug/l	
756426-58-19	Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0020	ug/l	
763051-92-91	Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0020	ug/l	

Instrument Blank

Job Number: FC3763
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q237-IBLK	6Q15787.D	1	03/30/23	MV	n/a	n/a	S6Q237

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3763-1, FC3763-2, FC3763-3, FC3763-4, FC3763-5

CAS No.	Compound	Result	RL	MDL	Units	Q
113507-82-7	PFEESA	ND	0.0040	0.0010	ug/l	
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.010	0.0050	ug/l	
914637-49-35:3	Fluorotelomer carboxylate	ND	0.050	0.010	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.050	0.010	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C4-PFBA	99% 20-150%
	13C5-PFPeA	96% 20-150%
	13C5-PFHxA	96% 20-150%
	13C4-PFHpA	101% 20-150%
	13C8-PFOA	100% 20-150%
	13C9-PFNA	106% 20-150%
	13C6-PFDA	110% 20-150%
	13C7-PFUnDA	104% 20-150%
	13C2-PFDoDA	104% 20-150%
	13C2-PFTeDA	107% 20-150%
	13C3-PFBS	95% 20-150%
	13C3-PFHxS	94% 20-150%
	13C8-PFOS	98% 20-150%
	13C8-FOSA	98% 20-150%
	d3-MeFOSA	95% 20-150%
	d5-EtFOSA	99% 20-150%
	d3-MeFOSAA	107% 20-150%
	d5-EtFOSAA	108% 20-150%
	d7-MeFOSE	97% 20-150%
	d9-EtFOSE	99% 20-150%
	13C2-4:2FTS	113% 20-150%
	13C2-6:2FTS	112% 20-150%
	13C2-8:2FTS	110% 20-150%
	13C3-HFPO-DA	99% 20-150%

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Instrument Blank

Job Number: FC3763
Account: AECOMCOD AECOM, INC.
Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q237-IBLK	6Q15888.D	1	03/31/23	MV	n/a	n/a	S6Q237

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3763-1, FC3763-2, FC3763-3, FC3763-4, FC3763-5

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.0040	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0010	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0020	0.00050	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0020	0.00050	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0020	0.00050	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0020	0.00061	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0020	0.00050	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0020	0.00060	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0020	0.00060	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0020	0.00084	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0020	0.00050	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0020	0.0010	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0020	0.0011	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0020	0.0010	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0020	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0020	0.0010	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0020	0.0010	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0020	0.0010	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0020	0.0011	ug/l	
757124-72-44:2	Fluorotelomer sulfonate	ND	0.0080	0.0040	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0080	0.0040	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0080	0.0041	ug/l	
754-91-6	PFOSA	ND	0.0020	0.0010	ug/l	
31506-32-8	MeFOSA	ND	0.0020	0.0010	ug/l	
4151-50-2	EtFOSA	ND	0.0020	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0020	0.0010	ug/l	
2991-50-6	EtFOSAA	ND	0.0020	0.0013	ug/l	
24448-09-7	MeFOSE	ND	0.020	0.010	ug/l	
1691-99-2	EtFOSE	ND	0.020	0.010	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0080	0.0020	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0020	ug/l	
377-73-1	PFMPA	ND	0.0040	0.0010	ug/l	
863090-89-5	PFMBA	ND	0.0040	0.0011	ug/l	
151772-58-6	NFDHA	ND	0.0040	0.0012	ug/l	
756426-58-19	Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0020	ug/l	
763051-92-91	Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0020	ug/l	

Instrument Blank

Job Number: FC3763
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q237-IBLK	6Q15888.D	1	03/31/23	MV	n/a	n/a	S6Q237

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3763-1, FC3763-2, FC3763-3, FC3763-4, FC3763-5

CAS No.	Compound	Result	RL	MDL	Units	Q
113507-82-7	PFEESA	ND	0.0040	0.0010	ug/l	
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.010	0.0050	ug/l	
914637-49-35:3	Fluorotelomer carboxylate	ND	0.050	0.010	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	0.0109	0.050	0.010	ug/l	J

CAS No.	ID Standard Recoveries	Limits
	13C4-PFBA	99% 20-150%
	13C5-PFPeA	93% 20-150%
	13C5-PFHxA	88% 20-150%
	13C4-PFHpA	96% 20-150%
	13C8-PFOA	110% 20-150%
	13C9-PFNA	95% 20-150%
	13C6-PFDA	101% 20-150%
	13C7-PFUnDA	111% 20-150%
	13C2-PFDoDA	101% 20-150%
	13C2-PFTeDA	101% 20-150%
	13C3-PFBS	101% 20-150%
	13C3-PFHxS	99% 20-150%
	13C8-PFOS	106% 20-150%
	13C8-FOSA	100% 20-150%
	d3-MeFOSA	101% 20-150%
	d5-EtFOSA	103% 20-150%
	d3-MeFOSAA	107% 20-150%
	d5-EtFOSAA	125% 20-150%
	d7-MeFOSE	100% 20-150%
	d9-EtFOSE	100% 20-150%
	13C2-4:2FTS	126% 20-150%
	13C2-6:2FTS	123% 20-150%
	13C2-8:2FTS	103% 20-150%
	13C3-HFPO-DA	97% 20-150%

Continuing Calibration Blank

Job Number: FC3763
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q237-ICCB	6Q15821.D	1	03/30/23	MV	n/a	n/a	S6Q237

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3763-1, FC3763-2, FC3763-3, FC3763-4, FC3763-5

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.0040	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0010	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0020	0.00050	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0020	0.00050	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0020	0.00050	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0020	0.00061	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0020	0.00050	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0020	0.00060	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0020	0.00060	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0020	0.00084	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0020	0.00050	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0020	0.0010	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0020	0.0011	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0020	0.0010	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0020	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0020	0.0010	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0020	0.0010	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0020	0.0010	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0020	0.0011	ug/l	
757124-72-44:2	Fluorotelomer sulfonate	ND	0.0080	0.0040	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0080	0.0040	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0080	0.0041	ug/l	
754-91-6	PFOSA	ND	0.0020	0.0010	ug/l	
31506-32-8	MeFOSA	ND	0.0020	0.0010	ug/l	
4151-50-2	EtFOSA	ND	0.0020	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0020	0.0010	ug/l	
2991-50-6	EtFOSAA	ND	0.0020	0.0013	ug/l	
24448-09-7	MeFOSE	ND	0.020	0.010	ug/l	
1691-99-2	EtFOSE	ND	0.020	0.010	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0080	0.0020	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0020	ug/l	
377-73-1	PFMPA	ND	0.0040	0.0010	ug/l	
863090-89-5	PFMBA	ND	0.0040	0.0011	ug/l	
151772-58-6	NFDHA	ND	0.0040	0.0012	ug/l	
756426-58-19	Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0020	ug/l	
763051-92-91	Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0020	ug/l	

Continuing Calibration Blank

Job Number: FC3763
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q237-ICCB	6Q15821.D	1	03/30/23	MV	n/a	n/a	S6Q237

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3763-1, FC3763-2, FC3763-3, FC3763-4, FC3763-5

CAS No.	Compound	Result	RL	MDL	Units	Q
113507-82-7	PFEESA	ND	0.0040	0.0010	ug/l	
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.010	0.0050	ug/l	
914637-49-35:3	Fluorotelomer carboxylate	ND	0.050	0.010	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.050	0.010	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C4-PFBA	100% 20-150%
	13C5-PFPeA	98% 20-150%
	13C5-PFHxA	92% 20-150%
	13C4-PFHpA	100% 20-150%
	13C8-PFOA	100% 20-150%
	13C9-PFNA	92% 20-150%
	13C6-PFDA	107% 20-150%
	13C7-PFUnDA	105% 20-150%
	13C2-PFDoDA	103% 20-150%
	13C2-PFTeDA	102% 20-150%
	13C3-PFBS	110% 20-150%
	13C3-PFHxS	108% 20-150%
	13C8-PFOS	102% 20-150%
	13C8-FOSA	97% 20-150%
	d3-MeFOSA	96% 20-150%
	d5-EtFOSA	94% 20-150%
	d3-MeFOSAA	111% 20-150%
	d5-EtFOSAA	113% 20-150%
	d7-MeFOSE	94% 20-150%
	d9-EtFOSE	95% 20-150%
	13C2-4:2FTS	129% 20-150%
	13C2-6:2FTS	125% 20-150%
	13C2-8:2FTS	111% 20-150%
	13C3-HFPO-DA	99% 20-150%

Continuing Calibration Blank

Job Number: FC3763
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q237-ICCB	6Q15881.D	1	03/31/23	MV	n/a	n/a	S6Q237

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

S6Q237-IBLK

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.0080	0.0040	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0040	0.0010	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0020	0.00050	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0020	0.00050	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0020	0.00050	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0020	0.00061	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0020	0.00050	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0020	0.00060	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0020	0.00060	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0020	0.00084	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0020	0.00050	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0020	0.0010	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0020	0.0011	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0020	0.0010	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0020	0.0010	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0020	0.0010	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0020	0.0010	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0020	0.0010	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0020	0.0011	ug/l	
757124-72-44:2	Fluorotelomer sulfonate	ND	0.0080	0.0040	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.0080	0.0040	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.0080	0.0041	ug/l	
754-91-6	PFOSA	ND	0.0020	0.0010	ug/l	
31506-32-8	MeFOSA	ND	0.0020	0.0010	ug/l	
4151-50-2	EtFOSA	ND	0.0020	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0020	0.0010	ug/l	
2991-50-6	EtFOSAA	ND	0.0020	0.0013	ug/l	
24448-09-7	MeFOSE	ND	0.020	0.010	ug/l	
1691-99-2	EtFOSE	ND	0.020	0.010	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0080	0.0020	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0020	ug/l	
377-73-1	PFMPA	ND	0.0040	0.0010	ug/l	
863090-89-5	PFMBA	ND	0.0040	0.0011	ug/l	
151772-58-6	NFDHA	ND	0.0040	0.0012	ug/l	
756426-58-19	Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0020	ug/l	
763051-92-91	Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0020	ug/l	

Continuing Calibration Blank

Job Number: FC3763
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q237-ICCB	6Q15881.D	1	03/31/23	MV	n/a	n/a	S6Q237

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

S6Q237-IBLK

CAS No.	Compound	Result	RL	MDL	Units	Q
113507-82-7	PFEESA	ND	0.0040	0.0010	ug/l	
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.010	0.0050	ug/l	
914637-49-35:3	Fluorotelomer carboxylate	ND	0.050	0.010	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.050	0.010	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C4-PFBA	99% 20-150%
	13C5-PFPeA	95% 20-150%
	13C5-PFHxA	94% 20-150%
	13C4-PFHpA	96% 20-150%
	13C8-PFOA	107% 20-150%
	13C9-PFNA	93% 20-150%
	13C6-PFDA	118% 20-150%
	13C7-PFUnDA	104% 20-150%
	13C2-PFDoDA	104% 20-150%
	13C2-PFTeDA	101% 20-150%
	13C3-PFBS	106% 20-150%
	13C3-PFHxS	98% 20-150%
	13C8-PFOS	105% 20-150%
	13C8-FOSA	100% 20-150%
	d3-MeFOSA	93% 20-150%
	d5-EtFOSA	102% 20-150%
	d3-MeFOSAA	107% 20-150%
	d5-EtFOSAA	111% 20-150%
	d7-MeFOSE	97% 20-150%
	d9-EtFOSE	101% 20-150%
	13C2-4:2FTS	126% 20-150%
	13C2-6:2FTS	108% 20-150%
	13C2-8:2FTS	114% 20-150%
	13C3-HFPO-DA	99% 20-150%

Method Blank Summary

Job Number: FC3763
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96143-MB	6Q15824.D	1	03/30/23	MV	03/29/23	OP96143	S6Q237

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3763-1, FC3763-2, FC3763-3, FC3763-4, FC3763-5

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.020	0.0019	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.010	0.00094	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0050	0.00050	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0050	0.00050	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0050	0.00050	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0050	0.00061	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0050	0.00050	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0050	0.00060	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0050	0.00060	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0050	0.00084	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0050	0.00050	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0050	0.00050	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0050	0.0011	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0050	0.00070	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0050	0.00050	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0050	0.00054	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0050	0.00057	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0050	0.00064	ug/l	
79780-39-5	Perfluorododecanesulfonic aci	ND	0.0050	0.0011	ug/l	
757124-72-44:2	Fluorotelomer sulfonate	ND	0.020	0.0032	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.020	0.0035	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.020	0.0041	ug/l	
754-91-6	PFOSA	ND	0.0050	0.00067	ug/l	
31506-32-8	MeFOSA	ND	0.0050	0.0010	ug/l	
4151-50-2	EtFOSA	ND	0.0050	0.0010	ug/l	
2355-31-9	MeFOSAA	ND	0.0050	0.0010	ug/l	
2991-50-6	EtFOSAA	ND	0.0050	0.0013	ug/l	
24448-09-7	MeFOSE	ND	0.050	0.0044	ug/l	
1691-99-2	EtFOSE	ND	0.050	0.0074	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.020	0.0010	ug/l	
919005-14-4	ADONA	ND	0.020	0.0019	ug/l	
377-73-1	PFMPA	ND	0.010	0.0010	ug/l	
863090-89-5	PFMBA	ND	0.010	0.0011	ug/l	
151772-58-6	NFDHA	ND	0.010	0.0012	ug/l	
756426-58-19	Cl-PF3ONS (F-53B Major)	ND	0.020	0.0014	ug/l	
763051-92-91	Cl-PF3OUdS (F-53B Minor)	ND	0.020	0.0018	ug/l	

Method Blank Summary

Job Number: FC3763
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96143-MB	6Q15824.D	1	03/30/23	MV	03/29/23	OP96143	S6Q237

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3763-1, FC3763-2, FC3763-3, FC3763-4, FC3763-5

CAS No.	Compound	Result	RL	MDL	Units	Q
113507-82-7	PFEESA	ND	0.010	0.00078	ug/l	
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.025	0.0045	ug/l	
914637-49-35:3	Fluorotelomer carboxylate	ND	0.13	0.0087	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.13	0.0079	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C4-PFBA	105% 20-150%
	13C5-PFPeA	101% 20-150%
	13C5-PFHxA	105% 20-150%
	13C4-PFHpA	106% 20-150%
	13C8-PFOA	105% 20-150%
	13C9-PFNA	105% 20-150%
	13C6-PFDA	110% 20-150%
	13C7-PFUnDA	110% 20-150%
	13C2-PFDoDA	96% 20-150%
	13C2-PFTeDA	86% 20-150%
	13C3-PFBS	100% 20-150%
	13C3-PFHxS	104% 20-150%
	13C8-PFOS	118% 20-150%
	13C8-FOSA	100% 20-150%
	d3-MeFOSA	80% 20-150%
	d5-EtFOSA	86% 20-150%
	d3-MeFOSAA	117% 20-150%
	d5-EtFOSAA	117% 20-150%
	d7-MeFOSE	88% 20-150%
	d9-EtFOSE	93% 20-150%
	13C2-4:2FTS	124% 20-150%
	13C2-6:2FTS	123% 20-150%
	13C2-8:2FTS	121% 20-150%
	13C3-HFPO-DA	104% 20-150%

6.1.5
6

Blank Spike Summary

Job Number: FC3763
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96143-LLBS	6Q15823.D	1	03/30/23	MV	03/29/23	OP96143	S6Q237

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3763-1, FC3763-2, FC3763-3, FC3763-4, FC3763-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.04	0.0383	96	40-150
2706-90-3	Perfluoropentanoic acid	0.02	0.0189	95	40-150
307-24-4	Perfluorohexanoic acid	0.01	0.0105	105	40-150
375-85-9	Perfluoroheptanoic acid	0.01	0.0094	94	40-150
335-67-1	Perfluorooctanoic acid	0.01	0.0099	99	40-150
375-95-1	Perfluorononanoic acid	0.01	0.0104	104	40-150
335-76-2	Perfluorodecanoic acid	0.01	0.0079	79	40-150
2058-94-8	Perfluoroundecanoic acid	0.01	0.0098	98	40-150
307-55-1	Perfluorododecanoic acid	0.01	0.0093	93	40-150
72629-94-8	Perfluorotridecanoic acid	0.01	0.0097	97	40-150
376-06-7	Perfluorotetradecanoic acid	0.01	0.0092	92	40-150
375-73-5	Perfluorobutanesulfonic acid	0.00887	0.0084	95	40-150
2706-91-4	Perfluoropentanesulfonic acid	0.00941	0.0094	100	40-150
355-46-4	Perfluorohexanesulfonic acid	0.00914	0.0085	93	40-150
375-92-8	Perfluoroheptanesulfonic acid	0.00953	0.0092	97	40-150
1763-23-1	Perfluorooctanesulfonic acid	0.00928	0.0102	110	40-150
68259-12-1	Perfluorononanesulfonic acid	0.00962	0.0089	93	40-150
335-77-3	Perfluorodecanesulfonic acid	0.00965	0.0092	95	40-150
79780-39-5	Perfluorododecanesulfonic aci	0.0097	0.0090	93	40-150
757124-72-44:2	Fluorotelomer sulfonate	0.0375	0.0324	86	40-150
27619-97-2	6:2 Fluorotelomer sulfonate	0.038	0.0397	104	40-150
39108-34-4	8:2 Fluorotelomer sulfonate	0.0384	0.0398	104	40-150
754-91-6	PFOSA	0.01	0.0097	97	40-150
31506-32-8	MeFOSA	0.01	0.0104	104	40-150
4151-50-2	EtFOSA	0.01	0.0099	99	40-150
2355-31-9	MeFOSAA	0.01	0.0093	93	40-150
2991-50-6	EtFOSAA	0.01	0.0105	105	40-150
24448-09-7	MeFOSE	0.1	0.0913	91	40-150
1691-99-2	EtFOSE	0.1	0.0977	98	40-150
13252-13-6	HFPO-DA (GenX)	0.04	0.0378	95	40-150
919005-14-4	ADONA	0.0378	0.0378	100	40-150
377-73-1	PFMPA	0.02	0.0186	93	40-150
863090-89-5	PFMBA	0.02	0.0187	94	40-150
151772-58-6	NFDHA	0.02	0.0194	97	40-150
756426-58-19	Cl-PF3ONS (F-53B Major)	0.0374	0.0377	101	40-150
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.0378	0.0348	92	40-150

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FC3763
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96143-LLBS	6Q15823.D	1	03/30/23	MV	03/29/23	OP96143	S6Q237

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3763-1, FC3763-2, FC3763-3, FC3763-4, FC3763-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
113507-82-7	PFEESA	0.0178	0.0174	98	40-150
356-02-5	3:3 Fluorotelomer carboxylate	0.05	0.0433	87	40-150
914637-49-35:3	Fluorotelomer carboxylate	0.25	0.236	94	40-150
812-70-4	7:3 Fluorotelomer carboxylate	0.25	0.233	93	40-150

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	111%	20-150%
	13C5-PFPeA	106%	20-150%
	13C5-PFHxA	103%	20-150%
	13C4-PFHpA	106%	20-150%
	13C8-PFOA	113%	20-150%
	13C9-PFNA	98%	20-150%
	13C6-PFDA	123%	20-150%
	13C7-PFUnDA	113%	20-150%
	13C2-PFDoDA	108%	20-150%
	13C2-PFTeDA	107%	20-150%
	13C3-PFBS	120%	20-150%
	13C3-PFHxS	109%	20-150%
	13C8-PFOS	102%	20-150%
	13C8-FOSA	102%	20-150%
	d3-MeFOSA	87%	20-150%
	d5-EtFOSA	87%	20-150%
	d3-MeFOSAA	108%	20-150%
	d5-EtFOSAA	111%	20-150%
	d7-MeFOSE	88%	20-150%
	d9-EtFOSE	85%	20-150%
	13C2-4:2FTS	141%	20-150%
	13C2-6:2FTS	118%	20-150%
	13C2-8:2FTS	123%	20-150%
	13C3-HFPO-DA	106%	20-150%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FC3763
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96143-BS	6Q15822.D	1	03/30/23	MV	03/29/23	OP96143	S6Q237

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3763-1, FC3763-2, FC3763-3, FC3763-4, FC3763-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.1	0.0995	100	40-150
2706-90-3	Perfluoropentanoic acid	0.05	0.0498	100	40-150
307-24-4	Perfluorohexanoic acid	0.025	0.0255	102	40-150
375-85-9	Perfluoroheptanoic acid	0.025	0.0248	99	40-150
335-67-1	Perfluorooctanoic acid	0.025	0.0248	99	40-150
375-95-1	Perfluorononanoic acid	0.025	0.0265	106	40-150
335-76-2	Perfluorodecanoic acid	0.025	0.0232	93	40-150
2058-94-8	Perfluoroundecanoic acid	0.025	0.0275	110	40-150
307-55-1	Perfluorododecanoic acid	0.025	0.0235	94	40-150
72629-94-8	Perfluorotridecanoic acid	0.025	0.0240	96	40-150
376-06-7	Perfluorotetradecanoic acid	0.025	0.0259	104	40-150
375-73-5	Perfluorobutanesulfonic acid	0.0222	0.0214	97	40-150
2706-91-4	Perfluoropentanesulfonic acid	0.0235	0.0225	96	40-150
355-46-4	Perfluorohexanesulfonic acid	0.0229	0.0227	99	40-150
375-92-8	Perfluoroheptanesulfonic acid	0.0238	0.0229	96	40-150
1763-23-1	Perfluorooctanesulfonic acid	0.0232	0.0214	92	40-150
68259-12-1	Perfluorononanesulfonic acid	0.0241	0.0233	97	40-150
335-77-3	Perfluorodecanesulfonic acid	0.0241	0.0250	104	40-150
79780-39-5	Perfluorododecanesulfonic aci	0.0243	0.0220	91	40-150
757124-72-44:2	Fluorotelomer sulfonate	0.0938	0.0947	101	40-150
27619-97-2	6:2 Fluorotelomer sulfonate	0.095	0.0915	96	40-150
39108-34-4	8:2 Fluorotelomer sulfonate	0.096	0.100	104	40-150
754-91-6	PFOSA	0.025	0.0250	100	40-150
31506-32-8	MeFOSA	0.025	0.0261	104	40-150
4151-50-2	EtFOSA	0.025	0.0247	99	40-150
2355-31-9	MeFOSAA	0.025	0.0241	96	40-150
2991-50-6	EtFOSAA	0.025	0.0243	97	40-150
24448-09-7	MeFOSE	0.25	0.264	106	40-150
1691-99-2	EtFOSE	0.25	0.250	100	40-150
13252-13-6	HFPO-DA (GenX)	0.1	0.104	104	40-150
919005-14-4	ADONA	0.0945	0.0992	105	40-150
377-73-1	PFMPA	0.05	0.0403	81	40-150
863090-89-5	PFMBA	0.05	0.0501	100	40-150
151772-58-6	NFDHA	0.05	0.0533	107	40-150
756426-58-19	Cl-PF3ONS (F-53B Major)	0.0935	0.0961	103	40-150
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.0945	0.0964	102	40-150

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FC3763
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96143-BS	6Q15822.D	1	03/30/23	MV	03/29/23	OP96143	S6Q237

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3763-1, FC3763-2, FC3763-3, FC3763-4, FC3763-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
113507-82-7	PFEESA	0.0445	0.0459	103	40-150
356-02-5	3:3 Fluorotelomer carboxylate	0.125	0.106	85	40-150
914637-49-35:3	Fluorotelomer carboxylate	0.625	0.661	106	40-150
812-70-4	7:3 Fluorotelomer carboxylate	0.625	0.635	102	40-150

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	38%	20-150%
	13C5-PFPeA	108%	20-150%
	13C5-PFHxA	105%	20-150%
	13C4-PFHpA	106%	20-150%
	13C8-PFOA	103%	20-150%
	13C9-PFNA	101%	20-150%
	13C6-PFDA	104%	20-150%
	13C7-PFUnDA	99%	20-150%
	13C2-PFDoDA	99%	20-150%
	13C2-PFTeDA	87%	20-150%
	13C3-PFBS	123%	20-150%
	13C3-PFHxS	123%	20-150%
	13C8-PFOS	109%	20-150%
	13C8-FOSA	104%	20-150%
	d3-MeFOSA	100%	20-150%
	d5-EtFOSA	98%	20-150%
	d3-MeFOSAA	117%	20-150%
	d5-EtFOSAA	115%	20-150%
	d7-MeFOSE	90%	20-150%
	d9-EtFOSE	97%	20-150%
	13C2-4:2FTS	136%	20-150%
	13C2-6:2FTS	143%	20-150%
	13C2-8:2FTS	138%	20-150%
	13C3-HFPO-DA	106%	20-150%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: FC3763
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96143-MS	6Q15828.D	1	03/30/23	MV	03/29/23	OP96143	S6Q237
FC3763-3	6Q15827.D	1	03/30/23	MV	03/29/23	OP96143	S6Q237

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3763-1, FC3763-2, FC3763-3, FC3763-4, FC3763-5

CAS No.	Compound	FC3763-3 ug/l	Spike Q	MS ug/l	MS %	Limits	
375-22-4	Perfluorobutanoic acid	0.019 U		0.0926	0.0957	103	40-150
2706-90-3	Perfluoropentanoic acid	0.0043 J		0.0463	0.0519	103	40-150
307-24-4	Perfluorohexanoic acid	0.0012 J		0.0231	0.0243	100	40-150
375-85-9	Perfluoroheptanoic acid	0.0047 U		0.0231	0.0241	104	40-150
335-67-1	Perfluorooctanoic acid	0.0047 U		0.0231	0.0224	97	40-150
375-95-1	Perfluorononanoic acid	0.0047 U		0.0231	0.0229	99	40-150
335-76-2	Perfluorodecanoic acid	0.0047 U		0.0231	0.0271	117	40-150
2058-94-8	Perfluoroundecanoic acid	0.0047 U		0.0231	0.0219	95	40-150
307-55-1	Perfluorododecanoic acid	0.0047 U		0.0231	0.0249	108	40-150
72629-94-8	Perfluorotridecanoic acid	0.0047 U		0.0231	0.0255	110	40-150
376-06-7	Perfluorotetradecanoic acid	0.0047 U		0.0231	0.0236	102	40-150
375-73-5	Perfluorobutanesulfonic acid	0.0047 U		0.0205	0.0214	104	40-150
2706-91-4	Perfluoropentanesulfonic acid	0.0047 U		0.0218	0.0210	96	40-150
355-46-4	Perfluorohexanesulfonic acid	0.0047 U		0.0212	0.0212	100	40-150
375-92-8	Perfluoroheptanesulfonic acid	0.0047 U		0.0221	0.0243	110	40-150
1763-23-1	Perfluorooctanesulfonic acid	0.0047 U		0.0215	0.0221	103	40-150
68259-12-1	Perfluorononanesulfonic acid	0.0047 U		0.0223	0.0219	98	40-150
335-77-3	Perfluorodecanesulfonic acid	0.0047 U		0.0223	0.0210	94	40-150
79780-39-5	Perfluorododecanesulfonic aci	0.0047 U		0.0225	0.0225	100	40-150
757124-72-44:2	Fluorotelomer sulfonate	0.019 U		0.0868	0.0876	101	40-150
27619-97-2	6:2 Fluorotelomer sulfonate	0.019 U		0.088	0.0961	109	40-150
39108-34-4	8:2 Fluorotelomer sulfonate	0.019 U		0.0889	0.0926	104	40-150
754-91-6	PFOSA	0.0047 U		0.0231	0.0243	105	40-150
31506-32-8	MeFOSA	0.0047 U		0.0231	0.0234	101	40-150
4151-50-2	EtFOSA	0.0047 U		0.0231	0.0232	100	40-150
2355-31-9	MeFOSAA	0.0047 U		0.0231	0.0263	114	40-150
2991-50-6	EtFOSAA	0.0047 U		0.0231	0.0230	99	40-150
24448-09-7	MeFOSE	0.047 U		0.231	0.244	105	40-150
1691-99-2	EtFOSE	0.047 U		0.231	0.225	97	40-150
13252-13-6	HFPO-DA (GenX)	0.019 U		0.0926	0.0912	98	40-150
919005-14-4	ADONA	0.019 U		0.0875	0.0900	103	40-150
377-73-1	PFMPA	0.0094 U		0.0463	0.0461	100	40-150
863090-89-5	PFMBA	0.0094 U		0.0463	0.0454	98	40-150
151772-58-6	NFDHA	0.0094 U		0.0463	0.0482	104	40-150
756426-58-19	Cl-PF3ONS (F-53B Major)	0.019 U		0.0866	0.0809	93	40-150
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.019 U		0.0875	0.0747	85	40-150

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: FC3763
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96143-MS	6Q15828.D	1	03/30/23	MV	03/29/23	OP96143	S6Q237
FC3763-3	6Q15827.D	1	03/30/23	MV	03/29/23	OP96143	S6Q237

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3763-1, FC3763-2, FC3763-3, FC3763-4, FC3763-5

CAS No.	Compound	FC3763-3 ug/l	Spike Q	MS ug/l	MS %	Limits
113507-82-7	PFEESA	0.0094 U	0.0412	0.0422	102	40-150
356-02-5	3:3 Fluorotelomer carboxylate	0.024 U	0.116	0.109	94	40-150
914637-49-35:3	Fluorotelomer carboxylate	0.12 U	0.579	0.591	102	40-150
812-70-4	7:3 Fluorotelomer carboxylate	0.12 U	0.579	0.597	103	40-150

CAS No.	ID Standard Recoveries	MS	FC3763-3	Limits
	13C4-PFBA	74%	107%	20-150%
	13C5-PFPeA	105%	110%	20-150%
	13C5-PFHxA	103%	114%	20-150%
	13C4-PFHpA	104%	107%	20-150%
	13C8-PFOA	112%	107%	20-150%
	13C9-PFNA	104%	94%	20-150%
	13C6-PFDA	93%	111%	20-150%
	13C7-PFUnDA	99%	96%	20-150%
	13C2-PFDoDA	84%	89%	20-150%
	13C2-PFTeDA	86%	84%	20-150%
	13C3-PFBS	110%	114%	20-150%
	13C3-PFHxS	111%	108%	20-150%
	13C8-PFOS	98%	104%	20-150%
	13C8-FOSA	100%	107%	20-150%
	d3-MeFOSA	97%	99%	20-150%
	d5-EtFOSA	91%	97%	20-150%
	d3-MeFOSAA	101%	118%	20-150%
	d5-EtFOSAA	99%	116%	20-150%
	d7-MeFOSE	86%	92%	20-150%
	d9-EtFOSE	91%	98%	20-150%
	13C2-4:2FTS	128%	132%	20-150%
	13C2-6:2FTS	117%	130%	20-150%
	13C2-8:2FTS	112%	111%	20-150%
	13C3-HFPO-DA	108%	110%	20-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: FC3763
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96143-DUP	6Q15831.D	1	03/31/23	MV	03/29/23	OP96143	S6Q237
FC3763-5	6Q15830.D	1	03/30/23	MV	03/29/23	OP96143	S6Q237

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3763-1, FC3763-2, FC3763-3, FC3763-4, FC3763-5

CAS No.	Compound	FC3763-5 ug/l	DUP Q ug/l	Q	RPD	Limits
375-22-4	Perfluorobutanoic acid	0.018 U	ND		nc	30
2706-90-3	Perfluoropentanoic acid	0.0089 U	ND		nc	30
307-24-4	Perfluorohexanoic acid	0.0045 U	ND		nc	30
375-85-9	Perfluoroheptanoic acid	0.0045 U	ND		nc	30
335-67-1	Perfluorooctanoic acid	0.0045 U	ND		nc	30
375-95-1	Perfluorononanoic acid	0.0045 U	ND		nc	30
335-76-2	Perfluorodecanoic acid	0.0045 U	ND		nc	30
2058-94-8	Perfluoroundecanoic acid	0.0045 U	ND		nc	30
307-55-1	Perfluorododecanoic acid	0.0045 U	ND		nc	30
72629-94-8	Perfluorotridecanoic acid	0.0045 U	ND		nc	30
376-06-7	Perfluorotetradecanoic acid	0.0045 U	ND		nc	30
375-73-5	Perfluorobutanesulfonic acid	0.0045 U	ND		nc	30
2706-91-4	Perfluoropentanesulfonic acid	0.0045 U	ND		nc	30
355-46-4	Perfluorohexanesulfonic acid	0.0045 U	ND		nc	30
375-92-8	Perfluoroheptanesulfonic acid	0.0045 U	ND		nc	30
1763-23-1	Perfluorooctanesulfonic acid	0.0045 U	ND		nc	30
68259-12-1	Perfluorononanesulfonic acid	0.0045 U	ND		nc	30
335-77-3	Perfluorodecanesulfonic acid	0.0045 U	ND		nc	30
79780-39-5	Perfluorododecanesulfonic aci	0.0045 U	ND		nc	30
757124-72-44:2	Fluorotelomer sulfonate	0.018 U	ND		nc	30
27619-97-2	6:2 Fluorotelomer sulfonate	0.018 U	ND		nc	30
39108-34-4	8:2 Fluorotelomer sulfonate	0.018 U	ND		nc	30
754-91-6	PFOSA	0.0045 U	ND		nc	30
31506-32-8	MeFOSA	0.0045 U	ND		nc	30
4151-50-2	EtFOSA	0.0045 U	ND		nc	30
2355-31-9	MeFOSAA	0.0045 U	ND		nc	30
2991-50-6	EtFOSAA	0.0045 U	ND		nc	30
24448-09-7	MeFOSE	0.045 U	ND		nc	30
1691-99-2	EtFOSE	0.045 U	ND		nc	30
13252-13-6	HFPO-DA (GenX)	0.018 U	ND		nc	30
919005-14-4	ADONA	0.018 U	ND		nc	30
377-73-1	PFMPA	0.0089 U	ND		nc	30
863090-89-5	PFMBA	0.0089 U	ND		nc	30
151772-58-6	NFDHA	0.0089 U	ND		nc	30
756426-58-19	Cl-PF3ONS (F-53B Major)	0.018 U	ND		nc	30
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.018 U	ND		nc	30

* = Outside of Control Limits.

Duplicate Summary

Job Number: FC3763
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96143-DUP	6Q15831.D	1	03/31/23	MV	03/29/23	OP96143	S6Q237
FC3763-5	6Q15830.D	1	03/30/23	MV	03/29/23	OP96143	S6Q237

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3763-1, FC3763-2, FC3763-3, FC3763-4, FC3763-5

CAS No.	Compound	FC3763-5 ug/l	DUP Q	ug/l	Q	RPD	Limits
113507-82-7	PFEESA	0.0089 U	ND			nc	30
356-02-5	3:3 Fluorotelomer carboxylate	0.022 U	ND			nc	30
914637-49-35:3	Fluorotelomer carboxylate	0.11 U	ND			nc	30
812-70-4	7:3 Fluorotelomer carboxylate	0.11 U	ND			nc	30

CAS No.	ID Standard Recoveries	DUP	FC3763-5	Limits
	13C4-PFBA	105%	110%	20-150%
	13C5-PFPeA	106%	114%	20-150%
	13C5-PFHxA	107%	112%	20-150%
	13C4-PFHpA	109%	114%	20-150%
	13C8-PFOA	101%	108%	20-150%
	13C9-PFNA	88%	114%	20-150%
	13C6-PFDA	94%	96%	20-150%
	13C7-PFUnDA	85%	92%	20-150%
	13C2-PFDoDA	80%	84%	20-150%
	13C2-PFTeDA	85%	86%	20-150%
	13C3-PFBS	115%	116%	20-150%
	13C3-PFHxS	107%	117%	20-150%
	13C8-PFOS	104%	100%	20-150%
	13C8-FOSA	96%	101%	20-150%
	d3-MeFOSA	86%	90%	20-150%
	d5-EtFOSA	86%	92%	20-150%
	d3-MeFOSAA	106%	110%	20-150%
	d5-EtFOSAA	97%	106%	20-150%
	d7-MeFOSE	80%	85%	20-150%
	d9-EtFOSE	85%	88%	20-150%
	13C2-4:2FTS	120%	129%	20-150%
	13C2-6:2FTS	121%	121%	20-150%
	13C2-8:2FTS	114%	133%	20-150%
	13C3-HFPO-DA	106%	115%	20-150%

* = Outside of Control Limits.