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## Technical Report for

**AECOM, INC.**

**N6274223F0104 RH Fire Suppression System**

**60697810**

**SGS Job Number: FC3427**

**Sampling Date: 03/13/23**



### Report to:

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**Total number of pages in report: 43**



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**

**Client Service contact: Elvin Kumar 407-425-6700**

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Test results relate only to samples analyzed.

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### Sample Summary

AECOM, INC.

Job No: FC3427

N6274223F0104 RH Fire Suppression System  
Project No: 60697810

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
FC3427-1	03/13/23	10:10 OS	03/14/23	AQ	Ground Water	AF-RHMW04-WGN01LF-2303W2
FC3427-2	03/13/23	11:10 GA	03/14/23	AQ	Ground Water	AF-RHMW12A-WGN01LF-2303W2
FC3427-3	03/13/23	11:10 GA	03/14/23	AQ	Ground Water	AF-RHMW12A-WGFD01LF-2303W2
FC3427-4	03/13/23	12:25 OS	03/14/23	AQ	Ground Water	AF-RHMW06-WGN01LF-2303W2
FC3427-5	03/13/23	14:30 GA	03/14/23	AQ	Ground Water	AF-RHMW16-WGN01LF-2303W2

# SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** AECOM, INC.

**Job No:** FC3427

**Site:** N6274223F0104 RH Fire Suppression System

**Report Date:** 3/21/2023 4:46:04 PM

On 03/14/2023, 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 1.4 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC3427 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:** OP95927

Sample(s) FC3427-2MS, FC3427-3DUP 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:

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

# Summary of Hits

**Job Number:** FC3427  
**Account:** AECOM, INC.  
**Project:** N6274223F0104 RH Fire Suppression System  
**Collected:** 03/13/23



Lab Sample ID	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
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FC3427-1      AF-RHMW04-WGN01LF-2303W2

No hits reported in this sample.

FC3427-2      AF-RHMW12A-WGN01LF-2303W2

Perfluoropentanoic acid	3.8 J	9.3	1.9	ng/l	EPA DRAFT 1633
Perfluorohexanoic acid	1.1 J	4.6	0.93	ng/l	EPA DRAFT 1633

FC3427-3      AF-RHMW12A-WGFD01LF-2303W2

Perfluoropentanoic acid	3.7 J	11	2.2	ng/l	EPA DRAFT 1633
Perfluorohexanoic acid	1.2 J	5.5	1.1	ng/l	EPA DRAFT 1633

FC3427-4      AF-RHMW06-WGN01LF-2303W2

No hits reported in this sample.

FC3427-5      AF-RHMW16-WGN01LF-2303W2

No hits reported in this sample.

**Sample Results**

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**Report of Analysis**

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# Report of Analysis

Client Sample ID:	AF-RHMW04-WGN01LF-2303W2		
Lab Sample ID:	FC3427-1	Date Sampled:	03/13/23
Matrix:	AQ - Ground Water	Date Received:	03/14/23
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	6Q15069.D	1	03/21/23 05:28	MV	03/16/23 10:00	OP95927	S6Q228
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-2303W2		Date Sampled:	03/13/23
Lab Sample ID:	FC3427-1	Date Received:	03/14/23	
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	106%		20-150%
	13C5-PFPeA	104%		20-150%
	13C5-PFHxA	102%		20-150%
	13C4-PFHpA	104%		20-150%
	13C8-PFOA	105%		20-150%
	13C9-PFNA	103%		20-150%
	13C6-PFDA	101%		20-150%
	13C7-PFUnDA	86%		20-150%
	13C2-PFDoDA	80%		20-150%
	13C2-PFTeDA	80%		20-150%
	13C3-PFBS	110%		20-150%
	13C3-PFHxS	111%		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

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## Report of Analysis

Client Sample ID:	AF-RHMW04-WGN01LF-2303W2	
Lab Sample ID:	FC3427-1	Date Sampled: 03/13/23
Matrix:	AQ - Ground Water	Date Received: 03/14/23
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	93%		20-150%
	13C8-FOSA	98%		20-150%
	d3-MeFOSA	77%		20-150%
	d5-EtFOSA	76%		20-150%
	d3-MeFOSAA	92%		20-150%
	d5-EtFOSAA	84%		20-150%
	d7-MeFOSE	84%		20-150%
	d9-EtFOSE	86%		20-150%
	13C2-4:2FTS	114%		20-150%
	13C2-6:2FTS	124%		20-150%
	13C2-8:2FTS	117%		20-150%
	13C3-HFPO-DA	98%		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-2303W2		
Lab Sample ID:	FC3427-2	Date Sampled:	03/13/23
Matrix:	AQ - Ground Water	Date Received:	03/14/23
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	6Q15070.D	1	03/21/23 05:42	MV	03/16/23 10:00	OP95927	S6Q228
Run #2							

Run #	Initial Volume	Final Volume
Run #1	540 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	3.7 U	19	3.7	1.8	ng/l	
2706-90-3	Perfluoropentanoic acid	3.8	9.3	1.9	0.87	ng/l	J
307-24-4	Perfluorohexanoic acid	1.1	4.6	0.93	0.46	ng/l	J
375-85-9	Perfluoroheptanoic acid	0.93 U	4.6	0.93	0.46	ng/l	
335-67-1	Perfluorooctanoic acid	0.93 U	4.6	0.93	0.46	ng/l	
375-95-1	Perfluorononanoic acid	1.9 U	4.6	1.9	0.56	ng/l	
335-76-2	Perfluorodecanoic acid	0.93 U	4.6	0.93	0.46	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.9 U	4.6	1.9	0.56	ng/l	
307-55-1	Perfluorododecanoic acid	1.9 U	4.6	1.9	0.56	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.9 U	4.6	1.9	0.78	ng/l	
376-06-7	Perfluorotetradecanoic acid	0.93 U	4.6	0.93	0.46	ng/l	

**PERFLUOROALKYL SULFONIC ACIDS**

375-73-5	Perfluorobutanesulfonic acid	0.93 U	4.6	0.93	0.46	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	3.7 U	4.6	3.7	1.0	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.9 U	4.6	1.9	0.65	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	0.93 U	4.6	0.93	0.46	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.9 U	4.6	1.9	0.50	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.9 U	4.6	1.9	0.53	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.9 U	4.6	1.9	0.59	ng/l	
79780-39-5	Perfluorododecanesulfonic aci	3.7 U	4.6	3.7	1.1	ng/l	

**FLUOROTELOMER SULFONIC ACIDS**

757124-72-4	4:2 Fluorotelomer sulfonate	7.4 U	19	7.4	3.0	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	7.4 U	19	7.4	3.2	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	7.4 U	19	7.4	3.8	ng/l	

**PERFLUOROOCCTANE SULFONAMIDES**

754-91-6	PFOSA	1.9 U	4.6	1.9	0.62	ng/l	
31506-32-8	MeFOSA	1.9 U	4.6	1.9	0.93	ng/l	
4151-50-2	EtFOSA	1.9 U	4.6	1.9	0.93	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

4.2  
4

# Report of Analysis

Client Sample ID:	AF-RHMW12A-WGN01LF-2303W2		
Lab Sample ID:	FC3427-2	Date Sampled:	03/13/23
Matrix:	AQ - Ground Water	Date Received:	03/14/23
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	3.7 U	4.6	3.7	0.93	ng/l	
2991-50-6	EtFOSAA	3.7 U	4.6	3.7	1.2	ng/l	

**PERFLUOROOCCTANE SULFONAMIDO ETHANOLS**

24448-09-7	MeFOSE	9.3 U	46	9.3	4.1	ng/l	
1691-99-2	EtFOSE	19 U	46	19	6.9	ng/l	

**PER and POLYFLUOROETHER CARBOXYLIC ACIDS**

13252-13-6	HFPO-DA (GenX)	3.7 U	19	3.7	0.93	ng/l	
919005-14-4	ADONA	3.7 U	19	3.7	1.7	ng/l	
377-73-1	PFMPA	1.9 U	9.3	1.9	0.93	ng/l	
863090-89-5	PFMBA	3.7 U	9.3	3.7	1.1	ng/l	
151772-58-6	NFDHA	3.7 U	9.3	3.7	1.1	ng/l	

**PER and POLYFLUOROETHER SULFONIC ACIDS**

756426-58-1	9Cl-PF3ONS (F-53B Major)	3.7 U	19	3.7	1.3	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.7 U	19	3.7	1.6	ng/l	
113507-82-7	PFEESA	1.9 U	9.3	1.9	0.72	ng/l	

**FLUOROTELOMER CARBOXYLIC ACIDS**

356-02-5	3:3 Fluorotelomer carboxylate	9.3 U	23	9.3	4.2	ng/l	
914637-49-3	5:3 Fluorotelomer carboxylate	19 U	120	19	8.1	ng/l	
812-70-4	7:3 Fluorotelomer carboxylate	19 U	120	19	7.3	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	90%		20-150%
	13C5-PFPeA	107%		20-150%
	13C5-PFHxA	105%		20-150%
	13C4-PFHpA	107%		20-150%
	13C8-PFOA	106%		20-150%
	13C9-PFNA	100%		20-150%
	13C6-PFDA	95%		20-150%
	13C7-PFUnDA	88%		20-150%
	13C2-PFDoDA	72%		20-150%
	13C2-PFTeDA	62%		20-150%
	13C3-PFBS	110%		20-150%
	13C3-PFHxS	104%		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

<b>Client Sample ID:</b>	AF-RHMW12A-WGN01LF-2303W2	
<b>Lab Sample ID:</b>	FC3427-2	<b>Date Sampled:</b> 03/13/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b> 03/14/23
<b>Method:</b>	EPA DRAFT 1633 EPA 1633 DRAFT	<b>Percent Solids:</b> n/a
<b>Project:</b>	N6274223F0104 RH Fire Suppression System	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	86%		20-150%
	13C8-FOSA	92%		20-150%
	d3-MeFOSA	61%		20-150%
	d5-EtFOSA	57%		20-150%
	d3-MeFOSAA	81%		20-150%
	d5-EtFOSAA	81%		20-150%
	d7-MeFOSE	62%		20-150%
	d9-EtFOSE	60%		20-150%
	13C2-4:2FTS	116%		20-150%
	13C2-6:2FTS	117%		20-150%
	13C2-8:2FTS	98%		20-150%
	13C3-HFPO-DA	101%		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-2303W2		
Lab Sample ID:	FC3427-3	Date Sampled:	03/13/23
Matrix:	AQ - Ground Water	Date Received:	03/14/23
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	6Q15072.D	1.2	03/21/23 06:10	MV	03/16/23 10:00	OP95927	S6Q228
Run #2							

Run #	Initial Volume	Final Volume
Run #1	550 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	4.4 U	22	4.4	2.1	ng/l	
2706-90-3	Perfluoropentanoic acid	3.7	11	2.2	1.0	ng/l	J
307-24-4	Perfluorohexanoic acid	1.2	5.5	1.1	0.55	ng/l	J
375-85-9	Perfluoroheptanoic acid	1.1 U	5.5	1.1	0.55	ng/l	
335-67-1	Perfluorooctanoic acid	1.1 U	5.5	1.1	0.55	ng/l	
375-95-1	Perfluorononanoic acid	2.2 U	5.5	2.2	0.67	ng/l	
335-76-2	Perfluorodecanoic acid	1.1 U	5.5	1.1	0.55	ng/l	
2058-94-8	Perfluoroundecanoic acid	2.2 U	5.5	2.2	0.65	ng/l	
307-55-1	Perfluorododecanoic acid	2.2 U	5.5	2.2	0.65	ng/l	
72629-94-8	Perfluorotridecanoic acid	2.2 U	5.5	2.2	0.92	ng/l	
376-06-7	Perfluorotetradecanoic acid	1.1 U	5.5	1.1	0.55	ng/l	

**PERFLUOROALKYL SULFONIC ACIDS**

375-73-5	Perfluorobutanesulfonic acid	1.1 U	5.5	1.1	0.55	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	4.4 U	5.5	4.4	1.2	ng/l	
355-46-4	Perfluorohexanesulfonic acid	2.2 U	5.5	2.2	0.76	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	1.1 U	5.5	1.1	0.55	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	2.2 U	5.5	2.2	0.59	ng/l	
68259-12-1	Perfluorononanesulfonic acid	2.2 U	5.5	2.2	0.62	ng/l	
335-77-3	Perfluorodecanesulfonic acid	2.2 U	5.5	2.2	0.70	ng/l	
79780-39-5	Perfluorododecanesulfonic aci	4.4 U	5.5	4.4	1.2	ng/l	

**FLUOROTELOMER SULFONIC ACIDS**

757124-72-4	4:2 Fluorotelomer sulfonate	8.7 U	22	8.7	3.5	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	8.7 U	22	8.7	3.8	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	8.7 U	22	8.7	4.5	ng/l	

**PERFLUOROOCCTANE SULFONAMIDES**

754-91-6	PFOSA	2.2 U	5.5	2.2	0.73	ng/l	
31506-32-8	MeFOSA	2.2 U	5.5	2.2	1.1	ng/l	
4151-50-2	EtFOSA	2.2 U	5.5	2.2	1.1	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

4.3  
4

# Report of Analysis

Client Sample ID:	AF-RHMW12A-WGFD01LF-2303W2		
Lab Sample ID:	FC3427-3	Date Sampled:	03/13/23
Matrix:	AQ - Ground Water	Date Received:	03/14/23
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	4.4 U	5.5	4.4	1.1	ng/l	
2991-50-6	EtFOSAA	4.4 U	5.5	4.4	1.5	ng/l	

**PERFLUOROOCCTANE SULFONAMIDO ETHANOLS**

24448-09-7	MeFOSE	11 U	55	11	4.8	ng/l	
1691-99-2	EtFOSE	22 U	55	22	8.1	ng/l	

**PER and POLYFLUOROETHER CARBOXYLIC ACIDS**

13252-13-6	HFPO-DA (GenX)	4.4 U	22	4.4	1.1	ng/l	
919005-14-4	ADONA	4.4 U	22	4.4	2.0	ng/l	
377-73-1	PFMPA	2.2 U	11	2.2	1.1	ng/l	
863090-89-5	PFMBA	4.4 U	11	4.4	1.2	ng/l	
151772-58-6	NFDHA	4.4 U	11	4.4	1.3	ng/l	

**PER and POLYFLUOROETHER SULFONIC ACIDS**

756426-58-1	9Cl-PF3ONS (F-53B Major)	4.4 U	22	4.4	1.5	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	4.4 U	22	4.4	1.9	ng/l	
113507-82-7	PFEESA	2.2 U	11	2.2	0.85	ng/l	

**FLUOROTELOMER CARBOXYLIC ACIDS**

356-02-5	3:3 Fluorotelomer carboxylate	11 U	27	11	4.9	ng/l	
914637-49-3	5:3 Fluorotelomer carboxylate	22 U	140	22	9.5	ng/l	
812-70-4	7:3 Fluorotelomer carboxylate	22 U	140	22	8.6	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	85%		20-150%
	13C5-PFPeA	86%		20-150%
	13C5-PFHxA	85%		20-150%
	13C4-PFHpA	88%		20-150%
	13C8-PFOA	92%		20-150%
	13C9-PFNA	84%		20-150%
	13C6-PFDA	78%		20-150%
	13C7-PFUnDA	69%		20-150%
	13C2-PFDoDA	55%		20-150%
	13C2-PFTeDA	56%		20-150%
	13C3-PFBS	82%		20-150%
	13C3-PFHxS	81%		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

<b>Client Sample ID:</b>	AF-RHMW12A-WGFD01LF-2303W2	
<b>Lab Sample ID:</b>	FC3427-3	<b>Date Sampled:</b> 03/13/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b> 03/14/23
<b>Method:</b>	EPA DRAFT 1633 EPA 1633 DRAFT	<b>Percent Solids:</b> n/a
<b>Project:</b>	N6274223F0104 RH Fire Suppression System	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	75%		20-150%
	13C8-FOSA	82%		20-150%
	d3-MeFOSA	62%		20-150%
	d5-EtFOSA	56%		20-150%
	d3-MeFOSAA	70%		20-150%
	d5-EtFOSAA	61%		20-150%
	d7-MeFOSE	60%		20-150%
	d9-EtFOSE	57%		20-150%
	13C2-4:2FTS	86%		20-150%
	13C2-6:2FTS	92%		20-150%
	13C2-8:2FTS	81%		20-150%
	13C3-HFPO-DA	85%		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-2303W2		
Lab Sample ID:	FC3427-4	Date Sampled:	03/13/23
Matrix:	AQ - Ground Water	Date Received:	03/14/23
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	6Q15074.D	1	03/21/23 06:38	MV	03/16/23 10:00	OP95927	S6Q228
Run #2							

Run #	Initial Volume	Final Volume
Run #1	570 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	3.5 U	18	3.5	1.7	ng/l	
2706-90-3	Perfluoropentanoic acid	1.8 U	8.8	1.8	0.82	ng/l	
307-24-4	Perfluorohexanoic acid	0.88 U	4.4	0.88	0.44	ng/l	
375-85-9	Perfluoroheptanoic acid	0.88 U	4.4	0.88	0.44	ng/l	
335-67-1	Perfluorooctanoic acid	0.88 U	4.4	0.88	0.44	ng/l	
375-95-1	Perfluorononanoic acid	1.8 U	4.4	1.8	0.54	ng/l	
335-76-2	Perfluorodecanoic acid	0.88 U	4.4	0.88	0.44	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	4.4	1.8	0.53	ng/l	
307-55-1	Perfluorododecanoic acid	1.8 U	4.4	1.8	0.53	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.8 U	4.4	1.8	0.74	ng/l	
376-06-7	Perfluorotetradecanoic acid	0.88 U	4.4	0.88	0.44	ng/l	

**PERFLUOROALKYL SULFONIC ACIDS**

375-73-5	Perfluorobutanesulfonic acid	0.88 U	4.4	0.88	0.44	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	3.5 U	4.4	3.5	0.98	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.8 U	4.4	1.8	0.61	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	0.88 U	4.4	0.88	0.44	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.8 U	4.4	1.8	0.47	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.8 U	4.4	1.8	0.50	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	4.4	1.8	0.56	ng/l	
79780-39-5	Perfluorododecanesulfonic aci	3.5 U	4.4	3.5	1.0	ng/l	

**FLUOROTELOMER SULFONIC ACIDS**

757124-72-4	4:2 Fluorotelomer sulfonate	7.0 U	18	7.0	2.8	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	7.0 U	18	7.0	3.0	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	7.0 U	18	7.0	3.6	ng/l	

**PERFLUOROOCCTANE SULFONAMIDES**

754-91-6	PFOSA	1.8 U	4.4	1.8	0.59	ng/l	
31506-32-8	MeFOSA	1.8 U	4.4	1.8	0.88	ng/l	
4151-50-2	EtFOSA	1.8 U	4.4	1.8	0.88	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-2303W2		Date Sampled:	03/13/23
Lab Sample ID:	FC3427-4		Date Received:	03/14/23
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	3.5 U	4.4	3.5	0.88	ng/l	
2991-50-6	EtFOSAA	3.5 U	4.4	3.5	1.2	ng/l	

**PERFLUOROOCCTANE SULFONAMIDO ETHANOLS**

24448-09-7	MeFOSE	8.8 U	44	8.8	3.8	ng/l	
1691-99-2	EtFOSE	18 U	44	18	6.5	ng/l	

**PER and POLYFLUOROETHER CARBOXYLIC ACIDS**

13252-13-6	HFPO-DA (GenX)	3.5 U	18	3.5	0.88	ng/l	
919005-14-4	ADONA	3.5 U	18	3.5	1.6	ng/l	
377-73-1	PFMPA	1.8 U	8.8	1.8	0.88	ng/l	
863090-89-5	PFMBA	3.5 U	8.8	3.5	1.0	ng/l	
151772-58-6	NFDHA	3.5 U	8.8	3.5	1.1	ng/l	

**PER and POLYFLUOROETHER SULFONIC ACIDS**

756426-58-1	9Cl-PF3ONS (F-53B Major)	3.5 U	18	3.5	1.2	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.5 U	18	3.5	1.5	ng/l	
113507-82-7	PFEESA	1.8 U	8.8	1.8	0.68	ng/l	

**FLUOROTELOMER CARBOXYLIC ACIDS**

356-02-5	3:3 Fluorotelomer carboxylate	8.8 U	22	8.8	4.0	ng/l	
914637-49-3	5:3 Fluorotelomer carboxylate	18 U	110	18	7.7	ng/l	
812-70-4	7:3 Fluorotelomer carboxylate	18 U	110	18	6.9	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
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	13C4-PFBA	98%		20-150%
	13C5-PFPeA	93%		20-150%
	13C5-PFHxA	93%		20-150%
	13C4-PFHpA	93%		20-150%
	13C8-PFOA	94%		20-150%
	13C9-PFNA	93%		20-150%
	13C6-PFDA	101%		20-150%
	13C7-PFUnDA	103%		20-150%
	13C2-PFDoDA	91%		20-150%
	13C2-PFTeDA	87%		20-150%
	13C3-PFBS	103%		20-150%
	13C3-PFHxS	104%		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

<b>Client Sample ID:</b> AF-RHMW06-WGN01LF-2303W2		<b>Date Sampled:</b> 03/13/23
<b>Lab Sample ID:</b> FC3427-4		<b>Date Received:</b> 03/14/23
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> EPA DRAFT 1633 EPA 1633 DRAFT		
<b>Project:</b> N6274223F0104 RH Fire Suppression System		

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C8-PFOS	99%		20-150%
	13C8-FOSA	96%		20-150%
	d3-MeFOSA	76%		20-150%
	d5-EtFOSA	78%		20-150%
	d3-MeFOSAA	88%		20-150%
	d5-EtFOSAA	93%		20-150%
	d7-MeFOSE	92%		20-150%
	d9-EtFOSE	93%		20-150%
	13C2-4:2FTS	114%		20-150%
	13C2-6:2FTS	120%		20-150%
	13C2-8:2FTS	111%		20-150%
	13C3-HFPO-DA	85%		20-150%

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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-2303W2		
Lab Sample ID:	FC3427-5	Date Sampled:	03/13/23
Matrix:	AQ - Ground Water	Date Received:	03/14/23
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	6Q15075.D	1	03/21/23 06:52	MV	03/16/23 10:00	OP95927	S6Q228
Run #2							

Run #	Initial Volume	Final Volume
Run #1	540 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	3.7 U	19	3.7	1.8	ng/l	
2706-90-3	Perfluoropentanoic acid	1.9 U	9.3	1.9	0.87	ng/l	
307-24-4	Perfluorohexanoic acid	0.93 U	4.6	0.93	0.46	ng/l	
375-85-9	Perfluoroheptanoic acid	0.93 U	4.6	0.93	0.46	ng/l	
335-67-1	Perfluorooctanoic acid	0.93 U	4.6	0.93	0.46	ng/l	
375-95-1	Perfluorononanoic acid	1.9 U	4.6	1.9	0.56	ng/l	
335-76-2	Perfluorodecanoic acid	0.93 U	4.6	0.93	0.46	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.9 U	4.6	1.9	0.56	ng/l	
307-55-1	Perfluorododecanoic acid	1.9 U	4.6	1.9	0.56	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.9 U	4.6	1.9	0.78	ng/l	
376-06-7	Perfluorotetradecanoic acid	0.93 U	4.6	0.93	0.46	ng/l	

**PERFLUOROALKYL SULFONIC ACIDS**

375-73-5	Perfluorobutanesulfonic acid	0.93 U	4.6	0.93	0.46	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	3.7 U	4.6	3.7	1.0	ng/l	
355-46-4	Perfluorohexanesulfonic acid	1.9 U	4.6	1.9	0.65	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	0.93 U	4.6	0.93	0.46	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.9 U	4.6	1.9	0.50	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.9 U	4.6	1.9	0.53	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.9 U	4.6	1.9	0.59	ng/l	
79780-39-5	Perfluorododecanesulfonic aci	3.7 U	4.6	3.7	1.1	ng/l	

**FLUOROTELOMER SULFONIC ACIDS**

757124-72-4	4:2 Fluorotelomer sulfonate	7.4 U	19	7.4	3.0	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	7.4 U	19	7.4	3.2	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	7.4 U	19	7.4	3.8	ng/l	

**PERFLUOROOCCTANE SULFONAMIDES**

754-91-6	PFOSA	1.9 U	4.6	1.9	0.62	ng/l	
31506-32-8	MeFOSA	1.9 U	4.6	1.9	0.93	ng/l	
4151-50-2	EtFOSA	1.9 U	4.6	1.9	0.93	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  
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# Report of Analysis

Client Sample ID:	AF-RHMW16-WGN01LF-2303W2		Date Sampled:	03/13/23
Lab Sample ID:	FC3427-5		Date Received:	03/14/23
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	3.7 U	4.6	3.7	0.93	ng/l	
2991-50-6	EtFOSAA	3.7 U	4.6	3.7	1.2	ng/l	

**PERFLUOROOCCTANE SULFONAMIDO ETHANOLS**

24448-09-7	MeFOSE	9.3 U	46	9.3	4.1	ng/l	
1691-99-2	EtFOSE	19 U	46	19	6.9	ng/l	

**PER and POLYFLUOROETHER CARBOXYLIC ACIDS**

13252-13-6	HFPO-DA (GenX)	3.7 U	19	3.7	0.93	ng/l	
919005-14-4	ADONA	3.7 U	19	3.7	1.7	ng/l	
377-73-1	PFMPA	1.9 U	9.3	1.9	0.93	ng/l	
863090-89-5	PFMBA	3.7 U	9.3	3.7	1.1	ng/l	
151772-58-6	NFDHA	3.7 U	9.3	3.7	1.1	ng/l	

**PER and POLYFLUOROETHER SULFONIC ACIDS**

756426-58-1	9Cl-PF3ONS (F-53B Major)	3.7 U	19	3.7	1.3	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.7 U	19	3.7	1.6	ng/l	
113507-82-7	PFEESA	1.9 U	9.3	1.9	0.72	ng/l	

**FLUOROTELOMER CARBOXYLIC ACIDS**

356-02-5	3:3 Fluorotelomer carboxylate	9.3 U	23	9.3	4.2	ng/l	
914637-49-3	5:3 Fluorotelomer carboxylate	19 U	120	19	8.1	ng/l	
812-70-4	7:3 Fluorotelomer carboxylate	19 U	120	19	7.3	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
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	13C4-PFBA	108%		20-150%
	13C5-PFPeA	104%		20-150%
	13C5-PFHxA	104%		20-150%
	13C4-PFHpA	103%		20-150%
	13C8-PFOA	103%		20-150%
	13C9-PFNA	107%		20-150%
	13C6-PFDA	104%		20-150%
	13C7-PFUnDA	91%		20-150%
	13C2-PFDoDA	84%		20-150%
	13C2-PFTeDA	76%		20-150%
	13C3-PFBS	107%		20-150%
	13C3-PFHxS	105%		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-2303W2	
Lab Sample ID:	FC3427-5	Date Sampled: 03/13/23
Matrix:	AQ - Ground Water	Date Received: 03/14/23
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	94%		20-150%
	13C8-FOSA	96%		20-150%
	d3-MeFOSA	75%		20-150%
	d5-EtFOSA	75%		20-150%
	d3-MeFOSAA	86%		20-150%
	d5-EtFOSAA	83%		20-150%
	d7-MeFOSE	85%		20-150%
	d9-EtFOSE	86%		20-150%
	13C2-4:2FTS	121%		20-150%
	13C2-6:2FTS	114%		20-150%
	13C2-8:2FTS	113%		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

**Misc. Forms**

**Custody Documents and Other Forms**

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**Includes the following where applicable:**

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



SGS North America Inc - Orlando  
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, FL 32811  
TEL: 407-425-6700 FAX: 407-425-0707  
www.sgs.com

FC 3427

COC #: 2303W2AFSG08

SGS - ORLANDO JOB # :

PAGE 1 OF 1

Client / Reporting Information		Project Information		SGS - ORLANDO Quote #										SKIFF #	Matrix Codes		
Company Name: AECOM		Project Name: N6274223F0104 RH Fire Suppression System		<div style="position: relative; height: 100px;"> <span style="position: absolute; top: 0; left: 0; font-size: 2em; opacity: 0.5;">Oll</span> <span style="position: absolute; top: 10px; left: 10px; font-size: 1.5em;">3/13/23</span> </div>											DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe		
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 #															
Sampler(s) Name(s) (Printed) Sampler 1: <i>Oliver Shirley</i> Sampler 2: <i>Mariana Degrain</i>		Client Purchase Order #															
SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION		CONTAINER INFORMATION										PFAS EPA Draft 1633	LAB USE ONLY		
	AF-RHMW04-WGN01LF-2303W2	DATE	TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NH4I	HNO3	H2SO4	NH4H-ZnAC	DIWATER	MEDIH	X	
		3/13/23	1010	OS, MS	GW	3			X								
Turnaround Time (Business days)		Data Deliverable Information		Comments / Remarks													
10 Day (Business) 7 Day <input checked="" type="checkbox"/> 5 Day 3 Day RUSH 2 Day RUSH 1 Day RUSH Other		Approved By: / Date: _____ <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													
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:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 Oliver Shirley/AECOM	3/13/23 13:40	Katie Abbott/AECOM	3 Oliver Shirley/AECOM	3/13/23 13:30	Katie Abbott/AECOM	4 Oliver Shirley/AECOM	3/13/23 16:00	Katie Abbott/AECOM	5 Oliver Shirley/AECOM	3/13/23 13:40	Katie Abbott/AECOM	6 Oliver Shirley/AECOM	3/13/23 13:40	Katie Abbott/AECOM	7 Oliver Shirley/AECOM	3/13/23 13:40	Katie Abbott/AECOM
Lab Use Only: Cooler Temperature (s) Celsius (corrected):	http://www.sgs.com/en/terms-and-conditions																

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FC3427: Chain of Custody

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Chain of Custody

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www.sgs.com

FC3427

COC #: 2303W2AFSG05

SGS - ORLANDO JOB #:

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Client / Reporting Information		Project Information		Analytical Information												Matrix Codes	
Company Name: AECOM		Project Name: N627423F0104 RH Fire Suppression System		<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">PFAS EPA Draft 1633</div> <div style="border: 1px solid black; padding: 5px;"> </div> </div>												DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe	
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) <i>GABRIEL A. GARCIA</i> Sampler 1: <i>GABRIEL A. GARCIA</i> Sampler 2: <i>GABRIEL A. GARCIA</i>																	
SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION			CONTAINER INFORMATION												LAB USE ONLY
		DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NOVE	HCl	NO3	NO2	PHOS4	NAGH-ZNAC	DI WATER	MEDH		
2	AF-RHMMW12A-WGN01LF-2303W2	03/13/23	1110	GTA	GW	3		X									X
3	AF-RHMMW12A-WGFD01LF-2303W2	12	12	GTA	GW	3		X									X
Turnaround Time ( Business days)				Data Deliverable Information				Comments / Remarks									
10 Day (Business)		Approved By: / Date:		<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 AFB 016-2761428J									
7 Day																	
5 Day																	
3 Day RUSH																	
2 Day RUSH																	
1 Day RUSH																	
Other																	
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		Date Time:		Relinquished By/Affiliation		Date Time:		Received By/Affiliation		Date Time:		Received By/Affiliation	
1 GABRIEL A. GARCIA/AECOM		03/13/23		2 [Signature] AECOM		03/13/23		3 [Signature] AECOM		03/13/23		4 [Signature] SGS		03/14/23		1600	
5				6				7				8					
Lab Use Only : Cooler Temperature (s) Celsius (corrected):																	
<a href="http://www.sgs.com/en/terms-and-conditions">http://www.sgs.com/en/terms-and-conditions</a>																	

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FC3427: Chain of Custody

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Chain of Custody

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FC3427

COC #: 2303W2AFSG09

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SGS - ORLANDO Quote # SKIFF #

Form with sections: Client / Reporting Information, Project Information, Analytical Information, Matrix Codes, Collection, Container Information, Turnaround Time, Data Deliverable Information, Comments / Remarks, Relinquished/Received, Lab Use Only.

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Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, FL 32811  
TEL: 407-425-6700 FAX: 407-425-0707  
www.sgs.com

FC 3427

COC #: 2303W2AFSG06

SGS - ORLANDO JOB # :

PAGE 1 OF 1

Client / Reporting Information		Project Information		SGS - ORLANDO Quote #												SKIFF #
Company Name: AECOM		Project Name: N6274223F0104 RH Fire Suppression System		Analytical Information												Matrix Codes
Address: 1001 Bishop St. Ste 1600		Street														DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe
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 #														
Sampler(s) Name(s) (Printed): Sampler 1: GABRIEL ALLEN (COC)		Client Purchase Order #		PFAS EPA Draft: 1633												LAB USE ONLY
SGS Orlando Sample #	Field ID / Point of Collection	DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NH3	HNO3	H2SO4	NH4OH-ZnAc	DI WATER	MICH	
5	AF-RHMW16-WGN01LF-2303W2	03/13/23	1430	GA	GW	3			X							
Turnaround Time ( Business days)				Data Deliverable Information				Comments / Remarks								
10 Day (Business)		Approved By: / Date:		<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 ANB 016-27614285								
7 Day																
5 Day																
3 Day RUSH																
2 Day RUSH																
1 Day RUSH																
Other																
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 GABRIEL ALLEN / AECOM		Date Time: 03/13/23		Received By/Affiliation Katie Abbott AECOM		Date Time: 03/13/23		Relinquished By/Affiliation Katie Abbott AECOM		Date Time: 03/13/23		Received By/Affiliation Katie Abbott AECOM		Date Time: 03/13/23		
Relinquished by/Affiliation		Date Time:		Received By/Affiliation		Date Time:		Relinquished By/Affiliation		Date Time:		Received By/Affiliation		Date Time:		
5				6				7				8				
Lab Use Only: Cooler Temperature (s) Celsius (corrected):												http://www.sgs.com/en/terms-and-conditions				

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FC3427: Chain of Custody

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## SGS Sample Receipt Summary

Job Number: FC3427

Client: AECOM

Project: N6274223F0104 RH Fire Suppression System

Date / Time Received: 3/14/2023 4:00:00 PM

Delivery Method: United Cargo/Airspace

Airbill #'s: United Cargo AWB #: 016-27614285

Therm ID: IR 1;

Therm CF: 0.2;

# of Coolers: 1

Cooler Temps (Raw Measured) °C: Cooler 1: (1.2);

Cooler Temps (Corrected) °C: Cooler 1: (1.4);

**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 230315 pH 10-12 219813A Other: (Specify) \_\_\_\_\_  
 Residual Chlorine Test Strip Lot #: \_\_\_\_\_

Comments

SM001  
Rev. Date 05/24/17

Technician: TORYW

Date: 3/14/2023 4:00:00 PM

Reviewer: CD

Date: 3/18/2023

**FC3427: Chain of Custody**

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5

# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC3427  
**Account:** AECOM, INC.  
**Project:** N6274223F0104 RH Fire Suppression System  
**Collected:** 03/13/23

QC Sample ID	CAS#	Analyte	Sample Result Type	Result Type	Units	Limits
--------------	------	---------	--------------------	-------------	-------	--------

No DOD QSM5.x Limits found for methods in this job.

---

\* Sample used for QC is not from job FC3427

5.2  
5

## MS Semi-volatiles

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### QC Data Summaries

---

**Includes the following where applicable:**

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

# Instrument Blank

Job Number: FC3427  
Account: AECOMCOD AECOM, INC.  
Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q228-IBLK	6Q15016.D	1	03/20/23	MV	n/a	n/a	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3427-1, FC3427-2, FC3427-3, FC3427-4, FC3427-5

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 acid	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	

# Instrument Blank

Job Number: FC3427  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q228-IBLK	6Q15016.D	1	03/20/23	MV	n/a	n/a	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3427-1, FC3427-2, FC3427-3, FC3427-4, FC3427-5

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	100%	20-150%
	13C5-PFPeA	97%	20-150%
	13C5-PFHxA	95%	20-150%
	13C4-PFHpA	96%	20-150%
	13C8-PFOA	99%	20-150%
	13C9-PFNA	104%	20-150%
	13C6-PFDA	117%	20-150%
	13C7-PFUnDA	119%	20-150%
	13C2-PFDoDA	112%	20-150%
	13C2-PFTeDA	118%	20-150%
	13C3-PFBS	104%	20-150%
	13C3-PFHxS	102%	20-150%
	13C8-PFOS	98%	20-150%
	13C8-FOSA	111%	20-150%
	d3-MeFOSA	106%	20-150%
	d5-EtFOSA	114%	20-150%
	d3-MeFOSAA	91%	20-150%
	d5-EtFOSAA	95%	20-150%
	d7-MeFOSE	118%	20-150%
	d9-EtFOSE	120%	20-150%
	13C2-4:2FTS	103%	20-150%
	13C2-6:2FTS	97%	20-150%
	13C2-8:2FTS	96%	20-150%
	13C3-HFPO-DA	92%	20-150%

6.1.1

6

# Continuing Calibration Blank

Job Number: FC3427  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q228-ICCB	6Q15065.D	1	03/21/23	MV	n/a	n/a	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3427-1, FC3427-2, FC3427-3, FC3427-4, FC3427-5

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	



# Continuing Calibration Blank

Job Number: FC3427  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q228-ICCB	6Q15065.D	1	03/21/23	MV	n/a	n/a	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3427-1, FC3427-2, FC3427-3, FC3427-4, FC3427-5

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	100%	20-150%
	13C5-PFPeA	98%	20-150%
	13C5-PFHxA	97%	20-150%
	13C4-PFHpA	99%	20-150%
	13C8-PFOA	100%	20-150%
	13C9-PFNA	92%	20-150%
	13C6-PFDA	102%	20-150%
	13C7-PFUnDA	108%	20-150%
	13C2-PFDoDA	109%	20-150%
	13C2-PFTeDA	108%	20-150%
	13C3-PFBS	101%	20-150%
	13C3-PFHxS	93%	20-150%
	13C8-PFOS	96%	20-150%
	13C8-FOSA	100%	20-150%
	d3-MeFOSA	97%	20-150%
	d5-EtFOSA	97%	20-150%
	d3-MeFOSAA	100%	20-150%
	d5-EtFOSAA	98%	20-150%
	d7-MeFOSE	105%	20-150%
	d9-EtFOSE	105%	20-150%
	13C2-4:2FTS	109%	20-150%
	13C2-6:2FTS	111%	20-150%
	13C2-8:2FTS	101%	20-150%
	13C3-HFPO-DA	95%	20-150%

# Method Blank Summary

Job Number: FC3427  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP95927-MB	6Q15068.D	1	03/21/23	MV	03/16/23	OP95927	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3427-1, FC3427-2, FC3427-3, FC3427-4, FC3427-5

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: FC3427  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP95927-MB	6Q15068.D	1	03/21/23	MV	03/16/23	OP95927	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3427-1, FC3427-2, FC3427-3, FC3427-4, FC3427-5

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	109% 20-150%
	13C5-PFPeA	108% 20-150%
	13C5-PFHxA	105% 20-150%
	13C4-PFHpA	107% 20-150%
	13C8-PFOA	106% 20-150%
	13C9-PFNA	105% 20-150%
	13C6-PFDA	96% 20-150%
	13C7-PFUnDA	88% 20-150%
	13C2-PFDoDA	73% 20-150%
	13C2-PFTeDA	77% 20-150%
	13C3-PFBS	110% 20-150%
	13C3-PFHxS	108% 20-150%
	13C8-PFOS	93% 20-150%
	13C8-FOSA	93% 20-150%
	d3-MeFOSA	74% 20-150%
	d5-EtFOSA	73% 20-150%
	d3-MeFOSAA	85% 20-150%
	d5-EtFOSAA	78% 20-150%
	d7-MeFOSE	87% 20-150%
	d9-EtFOSE	89% 20-150%
	13C2-4:2FTS	121% 20-150%
	13C2-6:2FTS	125% 20-150%
	13C2-8:2FTS	106% 20-150%
	13C3-HFPO-DA	104% 20-150%

# Blank Spike Summary

Job Number: FC3427  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP95927-LLBS	6Q15067.D	1	03/21/23	MV	03/16/23	OP95927	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3427-1, FC3427-2, FC3427-3, FC3427-4, FC3427-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.04	0.0336	84	40-150
2706-90-3	Perfluoropentanoic acid	0.02	0.0168	84	40-150
307-24-4	Perfluorohexanoic acid	0.01	0.0089	89	40-150
375-85-9	Perfluoroheptanoic acid	0.01	0.0089	89	40-150
335-67-1	Perfluorooctanoic acid	0.01	0.0087	87	40-150
375-95-1	Perfluorononanoic acid	0.01	0.0088	88	40-150
335-76-2	Perfluorodecanoic acid	0.01	0.0095	95	40-150
2058-94-8	Perfluoroundecanoic acid	0.01	0.0076	76	40-150
307-55-1	Perfluorododecanoic acid	0.01	0.0079	79	40-150
72629-94-8	Perfluorotridecanoic acid	0.01	0.0078	78	40-150
376-06-7	Perfluorotetradecanoic acid	0.01	0.0087	87	40-150
375-73-5	Perfluorobutanesulfonic acid	0.00887	0.0073	82	40-150
2706-91-4	Perfluoropentanesulfonic acid	0.00941	0.0080	85	40-150
355-46-4	Perfluorohexanesulfonic acid	0.00914	0.0079	86	40-150
375-92-8	Perfluoroheptanesulfonic acid	0.00953	0.0085	89	40-150
1763-23-1	Perfluorooctanesulfonic acid	0.00928	0.0081	87	40-150
68259-12-1	Perfluorononanesulfonic acid	0.00962	0.0084	87	40-150
335-77-3	Perfluorodecanesulfonic acid	0.00965	0.0082	85	40-150
79780-39-5	Perfluorododecanesulfonic aci	0.0097	0.0075	77	40-150
757124-72-44:2	Fluorotelomer sulfonate	0.0375	0.0321	86	40-150
27619-97-2	6:2 Fluorotelomer sulfonate	0.038	0.0323	85	40-150
39108-34-4	8:2 Fluorotelomer sulfonate	0.0384	0.0426	111	40-150
754-91-6	PFOSA	0.01	0.0091	91	40-150
31506-32-8	MeFOSA	0.01	0.0082	82	40-150
4151-50-2	EtFOSA	0.01	0.0085	85	40-150
2355-31-9	MeFOSAA	0.01	0.0092	92	40-150
2991-50-6	EtFOSAA	0.01	0.0086	86	40-150
24448-09-7	MeFOSE	0.1	0.0842	84	40-150
1691-99-2	EtFOSE	0.1	0.0848	85	40-150
13252-13-6	HFPO-DA (GenX)	0.04	0.0343	86	40-150
919005-14-4	ADONA	0.0378	0.0337	89	40-150
377-73-1	PFMPA	0.02	0.0176	88	40-150
863090-89-5	PFMBA	0.02	0.0173	87	40-150
151772-58-6	NFDHA	0.02	0.0166	83	40-150
756426-58-19	Cl-PF3ONS (F-53B Major)	0.0374	0.0312	83	40-150
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.0378	0.0316	84	40-150

\* = Outside of Control Limits.

# Blank Spike Summary

Job Number: FC3427  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP95927-LLBS	6Q15067.D	1	03/21/23	MV	03/16/23	OP95927	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3427-1, FC3427-2, FC3427-3, FC3427-4, FC3427-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
113507-82-7	PFEESA	0.0178	0.0144	81	40-150
356-02-5	3:3 Fluorotelomer carboxylate	0.05	0.0391	78	40-150
914637-49-35:3	Fluorotelomer carboxylate	0.25	0.224	90	40-150
812-70-4	7:3 Fluorotelomer carboxylate	0.25	0.226	90	40-150

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	113%	20-150%
	13C5-PFPeA	114%	20-150%
	13C5-PFHxA	113%	20-150%
	13C4-PFHpA	111%	20-150%
	13C8-PFOA	109%	20-150%
	13C9-PFNA	105%	20-150%
	13C6-PFDA	104%	20-150%
	13C7-PFUnDA	117%	20-150%
	13C2-PFDoDA	109%	20-150%
	13C2-PFTeDA	93%	20-150%
	13C3-PFBS	120%	20-150%
	13C3-PFHxS	115%	20-150%
	13C8-PFOS	109%	20-150%
	13C8-FOSA	109%	20-150%
	d3-MeFOSA	87%	20-150%
	d5-EtFOSA	84%	20-150%
	d3-MeFOSAA	106%	20-150%
	d5-EtFOSAA	105%	20-150%
	d7-MeFOSE	98%	20-150%
	d9-EtFOSE	97%	20-150%
	13C2-4:2FTS	128%	20-150%
	13C2-6:2FTS	128%	20-150%
	13C2-8:2FTS	116%	20-150%
	13C3-HFPO-DA	108%	20-150%

\* = Outside of Control Limits.

# Blank Spike Summary

Job Number: FC3427  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP95927-BS	6Q15066.D	1	03/21/23	MV	03/16/23	OP95927	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3427-1, FC3427-2, FC3427-3, FC3427-4, FC3427-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.1	0.0789	79	40-150
2706-90-3	Perfluoropentanoic acid	0.05	0.0387	77	40-150
307-24-4	Perfluorohexanoic acid	0.025	0.0200	80	40-150
375-85-9	Perfluoroheptanoic acid	0.025	0.0201	80	40-150
335-67-1	Perfluorooctanoic acid	0.025	0.0193	77	40-150
375-95-1	Perfluorononanoic acid	0.025	0.0190	76	40-150
335-76-2	Perfluorodecanoic acid	0.025	0.0212	85	40-150
2058-94-8	Perfluoroundecanoic acid	0.025	0.0199	80	40-150
307-55-1	Perfluorododecanoic acid	0.025	0.0189	76	40-150
72629-94-8	Perfluorotridecanoic acid	0.025	0.0188	75	40-150
376-06-7	Perfluorotetradecanoic acid	0.025	0.0218	87	40-150
375-73-5	Perfluorobutanesulfonic acid	0.0222	0.0171	77	40-150
2706-91-4	Perfluoropentanesulfonic acid	0.0235	0.0192	82	40-150
355-46-4	Perfluorohexanesulfonic acid	0.0229	0.0182	80	40-150
375-92-8	Perfluoroheptanesulfonic acid	0.0238	0.0186	78	40-150
1763-23-1	Perfluorooctanesulfonic acid	0.0232	0.0186	80	40-150
68259-12-1	Perfluorononanesulfonic acid	0.0241	0.0195	81	40-150
335-77-3	Perfluorodecanesulfonic acid	0.0241	0.0194	80	40-150
79780-39-5	Perfluorododecanesulfonic aci	0.0243	0.0178	73	40-150
757124-72-44:2	Fluorotelomer sulfonate	0.0938	0.0756	81	40-150
27619-97-2	6:2 Fluorotelomer sulfonate	0.095	0.0820	86	40-150
39108-34-4	8:2 Fluorotelomer sulfonate	0.096	0.0946	99	40-150
754-91-6	PFOSA	0.025	0.0222	89	40-150
31506-32-8	MeFOSA	0.025	0.0223	89	40-150
4151-50-2	EtFOSA	0.025	0.0201	80	40-150
2355-31-9	MeFOSAA	0.025	0.0187	75	40-150
2991-50-6	EtFOSAA	0.025	0.0182	73	40-150
24448-09-7	MeFOSE	0.25	0.194	78	40-150
1691-99-2	EtFOSE	0.25	0.205	82	40-150
13252-13-6	HFPO-DA (GenX)	0.1	0.0789	79	40-150
919005-14-4	ADONA	0.0945	0.0821	87	40-150
377-73-1	PFMPA	0.05	0.0409	82	40-150
863090-89-5	PFMBA	0.05	0.0408	82	40-150
151772-58-6	NFDHA	0.05	0.0400	80	40-150
756426-58-19	Cl-PF3ONS (F-53B Major)	0.0935	0.0731	78	40-150
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.0945	0.0728	77	40-150

\* = Outside of Control Limits.

# Blank Spike Summary

Job Number: FC3427  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP95927-BS	6Q15066.D	1	03/21/23	MV	03/16/23	OP95927	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3427-1, FC3427-2, FC3427-3, FC3427-4, FC3427-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
113507-82-7	PFEESA	0.0445	0.0363	82	40-150
356-02-5	3:3 Fluorotelomer carboxylate	0.125	0.0890	71	40-150
914637-49-35:3	Fluorotelomer carboxylate	0.625	0.529	85	40-150
812-70-4	7:3 Fluorotelomer carboxylate	0.625	0.555	89	40-150

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	85%	20-150%
	13C5-PFPeA	123%	20-150%
	13C5-PFHxA	120%	20-150%
	13C4-PFHpA	123%	20-150%
	13C8-PFOA	123%	20-150%
	13C9-PFNA	122%	20-150%
	13C6-PFDA	119%	20-150%
	13C7-PFUnDA	133%	20-150%
	13C2-PFDoDA	129%	20-150%
	13C2-PFTeDA	109%	20-150%
	13C3-PFBS	124%	20-150%
	13C3-PFHxS	118%	20-150%
	13C8-PFOS	126%	20-150%
	13C8-FOSA	121%	20-150%
	d3-MeFOSA	102%	20-150%
	d5-EtFOSA	104%	20-150%
	d3-MeFOSAA	116%	20-150%
	d5-EtFOSAA	115%	20-150%
	d7-MeFOSE	117%	20-150%
	d9-EtFOSE	117%	20-150%
	13C2-4:2FTS	131%	20-150%
	13C2-6:2FTS	129%	20-150%
	13C2-8:2FTS	123%	20-150%
	13C3-HFPO-DA	117%	20-150%

\* = Outside of Control Limits.

# Matrix Spike Summary

Job Number: FC3427  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP95927-MS	6Q15071.D	1.6	03/21/23	MV	03/16/23	OP95927	S6Q228
FC3427-2	6Q15070.D	1	03/21/23	MV	03/16/23	OP95927	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3427-1, FC3427-2, FC3427-3, FC3427-4, FC3427-5

CAS No.	Compound	FC3427-2 ug/l	Spike Q	MS ug/l	MS %	Limits	
375-22-4	Perfluorobutanoic acid	0.019 U		0.0909	0.0848	93	40-150
2706-90-3	Perfluoropentanoic acid	0.0038 J		0.0455	0.0459	93	40-150
307-24-4	Perfluorohexanoic acid	0.0011 J		0.0227	0.0233	98	40-150
375-85-9	Perfluoroheptanoic acid	0.0046 U		0.0227	0.0229	101	40-150
335-67-1	Perfluorooctanoic acid	0.0046 U		0.0227	0.0215	95	40-150
375-95-1	Perfluorononanoic acid	0.0046 U		0.0227	0.0193	85	40-150
335-76-2	Perfluorodecanoic acid	0.0046 U		0.0227	0.0211	93	40-150
2058-94-8	Perfluoroundecanoic acid	0.0046 U		0.0227	0.0243	107	40-150
307-55-1	Perfluorododecanoic acid	0.0046 U		0.0227	0.0207	91	40-150
72629-94-8	Perfluorotridecanoic acid	0.0046 U		0.0227	0.0200	88	40-150
376-06-7	Perfluorotetradecanoic acid	0.0046 U		0.0227	0.0223	98	40-150
375-73-5	Perfluorobutanesulfonic acid	0.0046 U		0.0202	0.0182	90	40-150
2706-91-4	Perfluoropentanesulfonic acid	0.0046 U		0.0214	0.0197	92	40-150
355-46-4	Perfluorohexanesulfonic acid	0.0046 U		0.0208	0.0185	89	40-150
375-92-8	Perfluoroheptanesulfonic acid	0.0046 U		0.0217	0.0217	100	40-150
1763-23-1	Perfluorooctanesulfonic acid	0.0046 U		0.0211	0.0187	89	40-150
68259-12-1	Perfluorononanesulfonic acid	0.0046 U		0.0219	0.0174	80	40-150
335-77-3	Perfluorodecanesulfonic acid	0.0046 U		0.0219	0.0174	79	40-150
79780-39-5	Perfluorododecanesulfonic aci	0.0046 U		0.022	0.0174	79	40-150
757124-72-44:2	Fluorotelomer sulfonate	0.019 U		0.0852	0.0789	93	40-150
27619-97-2	6:2 Fluorotelomer sulfonate	0.019 U		0.0864	0.0833	96	40-150
39108-34-4	8:2 Fluorotelomer sulfonate	0.019 U		0.0873	0.0891	102	40-150
754-91-6	PFOSA	0.0046 U		0.0227	0.0223	98	40-150
31506-32-8	MeFOSA	0.0046 U		0.0227	0.0233	103	40-150
4151-50-2	EtFOSA	0.0046 U		0.0227	0.0215	95	40-150
2355-31-9	MeFOSAA	0.0046 U		0.0227	0.0219	96	40-150
2991-50-6	EtFOSAA	0.0046 U		0.0227	0.0214	94	40-150
24448-09-7	MeFOSE	0.046 U		0.227	0.211	93	40-150
1691-99-2	EtFOSE	0.046 U		0.227	0.207	91	40-150
13252-13-6	HFPO-DA (GenX)	0.019 U		0.0909	0.0838	92	40-150
919005-14-4	ADONA	0.019 U		0.0859	0.0880	102	40-150
377-73-1	PFMPA	0.0093 U		0.0455	0.0436	96	40-150
863090-89-5	PFMBA	0.0093 U		0.0455	0.0433	95	40-150
151772-58-6	NFDHA	0.0093 U		0.0455	0.0434	95	40-150
756426-58-19	Cl-PF3ONS (F-53B Major)	0.019 U		0.085	0.0743	87	40-150
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.019 U		0.0859	0.0643	75	40-150

\* = Outside of Control Limits.



# Matrix Spike Summary

Job Number: FC3427  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP95927-MS	6Q15071.D	1.6	03/21/23	MV	03/16/23	OP95927	S6Q228
FC3427-2	6Q15070.D	1	03/21/23	MV	03/16/23	OP95927	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3427-1, FC3427-2, FC3427-3, FC3427-4, FC3427-5

CAS No.	Compound	FC3427-2 ug/l	Spike Q	MS ug/l	MS %	Limits
113507-82-7	PFEESA	0.0093 U	0.0405	0.0368	91	40-150
356-02-5	3:3 Fluorotelomer carboxylate	0.023 U	0.114	0.113	99	40-150
914637-49-35:3	Fluorotelomer carboxylate	0.12 U	0.568	0.561	99	40-150
812-70-4	7:3 Fluorotelomer carboxylate	0.12 U	0.568	0.579	102	40-150

CAS No.	ID Standard Recoveries	MS	FC3427-2	Limits
	13C4-PFBA	96%	90%	20-150%
	13C5-PFPeA	104%	107%	20-150%
	13C5-PFHxA	101%	105%	20-150%
	13C4-PFHpA	100%	107%	20-150%
	13C8-PFOA	106%	106%	20-150%
	13C9-PFNA	96%	100%	20-150%
	13C6-PFDA	97%	95%	20-150%
	13C7-PFUnDA	85%	88%	20-150%
	13C2-PFDoDA	80%	72%	20-150%
	13C2-PFTeDA	76%	62%	20-150%
	13C3-PFBS	103%	110%	20-150%
	13C3-PFHxS	100%	104%	20-150%
	13C8-PFOS	98%	86%	20-150%
	13C8-FOSA	99%	92%	20-150%
	d3-MeFOSA	73%	61%	20-150%
	d5-EtFOSA	67%	57%	20-150%
	d3-MeFOSAA	91%	81%	20-150%
	d5-EtFOSAA	82%	81%	20-150%
	d7-MeFOSE	74%	62%	20-150%
	d9-EtFOSE	72%	60%	20-150%
	13C2-4:2FTS	109%	116%	20-150%
	13C2-6:2FTS	113%	117%	20-150%
	13C2-8:2FTS	104%	98%	20-150%
	13C3-HFPO-DA	95%	101%	20-150%

\* = Outside of Control Limits.

# Duplicate Summary

Job Number: FC3427  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP95927-DUP	6Q15073.D	1	03/21/23	MV	03/16/23	OP95927	S6Q228
FC3427-3	6Q15072.D	1.2	03/21/23	MV	03/16/23	OP95927	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3427-1, FC3427-2, FC3427-3, FC3427-4, FC3427-5

CAS No.	Compound	FC3427-3 ug/l	DUP Q	ug/l	Q	RPD	Limits
375-22-4	Perfluorobutanoic acid	0.022 U		ND		nc	30
2706-90-3	Perfluoropentanoic acid	0.0037 J		0.0039 J	J	5	30
307-24-4	Perfluorohexanoic acid	0.0012 J		0.0012 J	J	0	30
375-85-9	Perfluoroheptanoic acid	0.0055 U		ND		nc	30
335-67-1	Perfluorooctanoic acid	0.0055 U		ND		nc	30
375-95-1	Perfluorononanoic acid	0.0055 U		ND		nc	30
335-76-2	Perfluorodecanoic acid	0.0055 U		ND		nc	30
2058-94-8	Perfluoroundecanoic acid	0.0055 U		ND		nc	30
307-55-1	Perfluorododecanoic acid	0.0055 U		ND		nc	30
72629-94-8	Perfluorotridecanoic acid	0.0055 U		ND		nc	30
376-06-7	Perfluorotetradecanoic acid	0.0055 U		ND		nc	30
375-73-5	Perfluorobutanesulfonic acid	0.0055 U		ND		nc	30
2706-91-4	Perfluoropentanesulfonic acid	0.0055 U		ND		nc	30
355-46-4	Perfluorohexanesulfonic acid	0.0055 U		ND		nc	30
375-92-8	Perfluoroheptanesulfonic acid	0.0055 U		ND		nc	30
1763-23-1	Perfluorooctanesulfonic acid	0.0055 U		ND		nc	30
68259-12-1	Perfluorononanesulfonic acid	0.0055 U		ND		nc	30
335-77-3	Perfluorodecanesulfonic acid	0.0055 U		ND		nc	30
79780-39-5	Perfluorododecanesulfonic aci	0.0055 U		ND		nc	30
757124-72-44:2	Fluorotelomer sulfonate	0.022 U		ND		nc	30
27619-97-2	6:2 Fluorotelomer sulfonate	0.022 U		ND		nc	30
39108-34-4	8:2 Fluorotelomer sulfonate	0.022 U		ND		nc	30
754-91-6	PFOSA	0.0055 U		ND		nc	30
31506-32-8	MeFOSA	0.0055 U		ND		nc	30
4151-50-2	EtFOSA	0.0055 U		ND		nc	30
2355-31-9	MeFOSAA	0.0055 U		ND		nc	30
2991-50-6	EtFOSAA	0.0055 U		ND		nc	30
24448-09-7	MeFOSE	0.055 U		ND		nc	30
1691-99-2	EtFOSE	0.055 U		ND		nc	30
13252-13-6	HFPO-DA (GenX)	0.022 U		ND		nc	30
919005-14-4	ADONA	0.022 U		ND		nc	30
377-73-1	PFMPA	0.011 U		ND		nc	30
863090-89-5	PFMBA	0.011 U		ND		nc	30
151772-58-6	NFDHA	0.011 U		ND		nc	30
756426-58-19	Cl-PF3ONS (F-53B Major)	0.022 U		ND		nc	30
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.022 U		ND		nc	30

\* = Outside of Control Limits.

# Duplicate Summary

Job Number: FC3427  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP95927-DUP	6Q15073.D	1	03/21/23	MV	03/16/23	OP95927	S6Q228
FC3427-3	6Q15072.D	1.2	03/21/23	MV	03/16/23	OP95927	S6Q228

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC3427-1, FC3427-2, FC3427-3, FC3427-4, FC3427-5

CAS No.	Compound	FC3427-3 ug/l	DUP Q ug/l	Q RPD	Limits
113507-82-7	PFEESA	0.011 U	ND	nc	30
356-02-5	3:3 Fluorotelomer carboxylate	0.027 U	ND	nc	30
914637-49-35:3	Fluorotelomer carboxylate	0.14 U	ND	nc	30
812-70-4	7:3 Fluorotelomer carboxylate	0.14 U	ND	nc	30

CAS No.	ID Standard Recoveries	DUP	FC3427-3	Limits
	13C4-PFBA	83%	85%	20-150%
	13C5-PFPeA	99%	86%	20-150%
	13C5-PFHxA	99%	85%	20-150%
	13C4-PFHpA	100%	88%	20-150%
	13C8-PFOA	103%	92%	20-150%
	13C9-PFNA	96%	84%	20-150%
	13C6-PFDA	89%	78%	20-150%
	13C7-PFUnDA	80%	69%	20-150%
	13C2-PFDoDA	71%	55%	20-150%
	13C2-PFTeDA	66%	56%	20-150%
	13C3-PFBS	101%	82%	20-150%
	13C3-PFHxS	101%	81%	20-150%
	13C8-PFOS	83%	75%	20-150%
	13C8-FOSA	92%	82%	20-150%
	d3-MeFOSA	64%	62%	20-150%
	d5-EtFOSA	58%	56%	20-150%
	d3-MeFOSAA	87%	70%	20-150%
	d5-EtFOSAA	76%	61%	20-150%
	d7-MeFOSE	63%	60%	20-150%
	d9-EtFOSE	66%	57%	20-150%
	13C2-4:2FTS	112%	86%	20-150%
	13C2-6:2FTS	112%	92%	20-150%
	13C2-8:2FTS	105%	81%	20-150%
	13C3-HFPO-DA	91%	85%	20-150%

\* = Outside of Control Limits.