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*Automated Report*

## Technical Report for

**AECOM, INC.**

**N6274223F0104 RH Fire Suppression System**

**60697810**

**SGS Job Number: FC5890**

**Sampling Date: 05/05/23**



### Report to:

**AECOM, Inc**  
**7595 Technology Way**  
**Denver, CO 80237**  
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**ATTN: Katie Abbott**

**Total number of pages in report: 42**



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**

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001)  
DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177),  
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Test results relate only to samples analyzed.



May 17, 2023

Katie Abbott  
AECOM  
7595 Technology Way  
Denver, CO 80237

RE: SGS North America Inc. - Orlando job FC5890 Reissue

Dear Katie,

The results for samples FC5890-1 (AF-RHMW02-WGN01LF-2305W1) and FC5890-2 (AF-RHMW02-WGFD01LF-2305W1) changed as the interference moved when re-analyzed on the other instrument. The changes are incorporated in the revised report for sample delivery group FC5890

SGS North America Inc. - Orlando apologizes for any inconvenience this may have caused. Please feel free to contact us if we can be of further assistance.

Sincerely,

SGS North America, Inc. - Orlando

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## Sample Summary

AECOM, INC.

Job No: FC5890

N6274223F0104 RH Fire Suppression System  
Project No: 60697810

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
FC5890-1	05/05/23	09:55	GAMY05/06/23	AQ	Ground Water	AF-RHMW02-WGN01LF-2305W1
FC5890-2	05/05/23	09:55	GAMY05/06/23	AQ	Ground Water	AF-RHMW02-WGFD01LF-2305W1
FC5890-3	05/05/23	11:25	GAMY05/06/23	AQ	Ground Water	AF-RHMW03-WGN01LF-2305W1

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** AECOM, INC.

**Job No:** FC5890

**Site:** N6274223F0104 RH Fire Suppression System

**Report Revised Date:** 5/17/2023 4:31:58 PM

On 05/06/2023, 3 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 2.6 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC5890 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:** OP96784

Sample(s) FC5890-1MS, FC5890-2DUP were used as the QC samples indicated.

RPD(s) for Duplicate for 6:2 Fluorotelomer sulfonate are outside control limits for sample OP96784-DUP. Probable cause is due to sample non-homogeneity.

FC5890-1: Confirmation run.

FC5890-2: Confirmation run.

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 revised May 17, 2023 by:

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

## Summary of Hits

**Job Number:** FC5890  
**Account:** AECOM, INC.  
**Project:** N6274223F0104 RH Fire Suppression System  
**Collected:** 05/05/23



Lab Sample ID	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FC5890-1	AF-RHMW02-WGN01LF-2305W1					
Perfluoroheptanoic acid		0.56 J	3.6	1.8	ng/l	EPA DRAFT 1633
FC5890-2	AF-RHMW02-WGFD01LF-2305W1					
Perfluorohexanoic acid		0.57 J	3.6	1.8	ng/l	EPA DRAFT 1633
Perfluoroheptanoic acid		0.71 J	3.6	1.8	ng/l	EPA DRAFT 1633
FC5890-3	AF-RHMW03-WGN01LF-2305W1					
Perfluorobutanoic acid		1.8 J	15	3.8	ng/l	EPA DRAFT 1633
Perfluoropentanoic acid		3.3 J	7.5	1.9	ng/l	EPA DRAFT 1633
Perfluorohexanoic acid		2.0 J	3.8	1.9	ng/l	EPA DRAFT 1633
Perfluoroheptanoic acid		1.6 J	3.8	1.9	ng/l	EPA DRAFT 1633
6:2 Fluorotelomer sulfonate		5.3 J	19	7.5	ng/l	EPA DRAFT 1633

**Sample Results**

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**Report of Analysis**

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### Report of Analysis

Client Sample ID:	AF-RHMW02-WGN01LF-2305W1		
Lab Sample ID:	FC5890-1	Date Sampled:	05/05/23
Matrix:	AQ - Ground Water	Date Received:	05/06/23
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	6Q17752.D	1	05/12/23 15:38	MV	05/08/23 10:30	OP96784	S6Q268
Run #2 <sup>a</sup>	4Q44179.D	1	05/10/23 00:27	MV	05/08/23 10:30	OP96784	S4Q639

	Initial Volume	Final Volume
Run #1	550 ml	5.0 ml
Run #2	550 ml	5.0 ml

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

375-22-4	Perfluorobutanoic acid	3.6 U	15	3.6	1.7	ng/l	
2706-90-3	Perfluoropentanoic acid	1.8 U	7.3	1.8	0.85	ng/l	
307-24-4	Perfluorohexanoic acid	1.8 U	3.6	1.8	0.45	ng/l	
375-85-9	Perfluoroheptanoic acid	0.56	3.6	1.8	0.45	ng/l	J
335-67-1	Perfluorooctanoic acid	0.91 U	3.6	0.91	0.45	ng/l	
375-95-1	Perfluorononanoic acid	1.8 U	3.6	1.8	0.55	ng/l	
335-76-2	Perfluorodecanoic acid	1.8 U	3.6	1.8	0.45	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	3.6	1.8	0.55	ng/l	
307-55-1	Perfluorododecanoic acid	1.8 U	3.6	1.8	0.55	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.8 U	3.6	1.8	0.76	ng/l	
376-06-7	Perfluorotetradecanoic acid	1.8 U	3.6	1.8	0.45	ng/l	

#### PERFLUOROALKYL SULFONIC ACIDS

375-73-5	Perfluorobutanesulfonic acid	1.8 U	3.6	1.8	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	3.6	1.8	0.64	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	1.8 U	3.6	1.8	0.45	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.8 U	3.6	1.8	0.49	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.8 U	3.6	1.8	0.52	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	3.6	1.8	0.58	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	7.3 U	18	7.3	2.9	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	7.3 U	18	7.3	3.2	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	7.3 U	18	7.3	3.7	ng/l	

#### PERFLUOROOCCTANE SULFONAMIDES

754-91-6	PFOSA	1.8 U	3.6	1.8	0.61	ng/l	
31506-32-8	MeFOSA	3.6 U	7.3	3.6	0.91	ng/l	
4151-50-2	EtFOSA	3.6 U	7.3	3.6	0.91	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-RHMW02-WGN01LF-2305W1		Date Sampled:	05/05/23
Lab Sample ID:	FC5890-1	Date Received:	05/06/23	
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	0.91	ng/l	
2991-50-6	EtFOSAA	3.6 U	4.5	3.6	1.2	ng/l	

**PERFLUOROOCCTANE SULFONAMIDO ETHANOLS**

24448-09-7	MeFOSE	18 U	36	18	4.0	ng/l	
1691-99-2	EtFOSE	18 U	36	18	6.7	ng/l	

**PER and POLYFLUOROETHER CARBOXYLIC ACIDS**

13252-13-6	HFPO-DA (GenX)	1.8 U	3.6	1.8	0.91	ng/l	
919005-14-4	ADONA	3.6 U	7.3	3.6	1.7	ng/l	
377-73-1	PFMPA	1.8 U	7.3	1.8	0.91	ng/l	
863090-89-5	PFMBA	3.6 U	7.3	3.6	1.0	ng/l	
151772-58-6	NFDHA	3.6 U	7.3	3.6	1.1	ng/l	

**PER and POLYFLUOROETHER SULFONIC ACIDS**

756426-58-1	9Cl-PF3ONS (F-53B Major)	3.6 U	7.3	3.6	1.3	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.6 U	7.3	3.6	1.6	ng/l	
113507-82-7	PFEESA	1.8 U	7.3	1.8	0.71	ng/l	

**FLUOROTELOMER CARBOXYLIC ACIDS**

356-02-5	3:3 Fluorotelomer carboxylate	9.1 U	18	9.1	4.1	ng/l	
914637-49-3	5:3 Fluorotelomer carboxylate	18 U	91	18	7.9	ng/l	
812-70-4	7:3 Fluorotelomer carboxylate	18 U	91	18	7.1	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	68%	66%	20-150%
	13C5-PFPeA	95%	87%	20-150%
	13C5-PFHxA	115%	114%	20-150%
	13C4-PFHpA	115%	120%	20-150%
	13C8-PFOA	107%	114%	20-150%
	13C9-PFNA	120%	106%	20-150%
	13C6-PFDA	110%	107%	20-150%
	13C7-PFUnDA	103%	108%	20-150%
	13C2-PFDoDA	88%	93%	20-150%
	13C2-PFTeDA	69%	63%	20-150%
	13C3-PFBS	113%	108%	20-150%
	13C3-PFHxS	118%	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

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## Report of Analysis

Client Sample ID: AF-RHMW02-WGN01LF-2305W1	Date Sampled: 05/05/23
Lab Sample ID: FC5890-1	Date Received: 05/06/23
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	100%	104%	20-150%
	13C8-FOSA	79%	83%	20-150%
	d3-MeFOSA	74%	72%	20-150%
	d5-EtFOSA	71%	71%	20-150%
	d3-MeFOSAA	104%	125%	20-150%
	d5-EtFOSAA	106%	125%	20-150%
	d7-MeFOSE	69%	59%	20-150%
	d9-EtFOSE	74%	61%	20-150%
	13C2-4:2FTS	161%	153%	20-180%
	13C2-6:2FTS	122%	141%	20-180%
	13C2-8:2FTS	105%	118%	20-180%
	13C3-HFPO-DA	90%	85%	20-150%

(a) Confirmation run.

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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-RHMW02-WGFD01LF-2305W1		
Lab Sample ID:	FC5890-2	Date Sampled:	05/05/23
Matrix:	AQ - Ground Water	Date Received:	05/06/23
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	6Q17755.D	1	05/12/23 16:21	MV	05/08/23 10:30	OP96784	S6Q268
Run #2 <sup>a</sup>	4Q44181.D	1	05/10/23 00:55	MV	05/08/23 10:30	OP96784	S4Q639

Run #	Initial Volume	Final Volume
Run #1	550 ml	5.0 ml
Run #2	550 ml	5.0 ml

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

375-22-4	Perfluorobutanoic acid	3.6 U	15	3.6	1.7	ng/l	
2706-90-3	Perfluoropentanoic acid	1.8 U	7.3	1.8	0.85	ng/l	
307-24-4	Perfluorohexanoic acid	0.57	3.6	1.8	0.45	ng/l	J
375-85-9	Perfluoroheptanoic acid	0.71	3.6	1.8	0.45	ng/l	J
335-67-1	Perfluorooctanoic acid	0.91 U	3.6	0.91	0.45	ng/l	
375-95-1	Perfluorononanoic acid	1.8 U	3.6	1.8	0.55	ng/l	
335-76-2	Perfluorodecanoic acid	1.8 U	3.6	1.8	0.45	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	3.6	1.8	0.55	ng/l	
307-55-1	Perfluorododecanoic acid	1.8 U	3.6	1.8	0.55	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.8 U	3.6	1.8	0.76	ng/l	
376-06-7	Perfluorotetradecanoic acid	1.8 U	3.6	1.8	0.45	ng/l	

**PERFLUOROALKYL SULFONIC ACIDS**

375-73-5	Perfluorobutanesulfonic acid	1.8 U	3.6	1.8	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	3.6	1.8	0.64	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	1.8 U	3.6	1.8	0.45	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.8 U	3.6	1.8	0.49	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.8 U	3.6	1.8	0.52	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	3.6	1.8	0.58	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	7.3 U	18	7.3	2.9	ng/l	
27619-97-2	6:2 Fluorotelomer sulfonate	7.3 U	18	7.3	3.2	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	7.3 U	18	7.3	3.7	ng/l	

**PERFLUOROOCCTANE SULFONAMIDES**

754-91-6	PFOSA	1.8 U	3.6	1.8	0.61	ng/l	
31506-32-8	MeFOSA	3.6 U	7.3	3.6	0.91	ng/l	
4151-50-2	EtFOSA	3.6 U	7.3	3.6	0.91	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  
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# Report of Analysis

Client Sample ID:	AF-RHMW02-WGFD01LF-2305W1		
Lab Sample ID:	FC5890-2	Date Sampled:	05/05/23
Matrix:	AQ - Ground Water	Date Received:	05/06/23
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	0.91	ng/l	
2991-50-6	EtFOSAA	3.6 U	4.5	3.6	1.2	ng/l	

**PERFLUOROOCCTANE SULFONAMIDO ETHANOLS**

24448-09-7	MeFOSE	18 U	36	18	4.0	ng/l	
1691-99-2	EtFOSE	18 U	36	18	6.7	ng/l	

**PER and POLYFLUOROETHER CARBOXYLIC ACIDS**

13252-13-6	HFPO-DA (GenX)	1.8 U	3.6	1.8	0.91	ng/l	
919005-14-4	ADONA	3.6 U	7.3	3.6	1.7	ng/l	
377-73-1	PFMPA	1.8 U	7.3	1.8	0.91	ng/l	
863090-89-5	PFMBA	3.6 U	7.3	3.6	1.0	ng/l	
151772-58-6	NFDHA	3.6 U	7.3	3.6	1.1	ng/l	

**PER and POLYFLUOROETHER SULFONIC ACIDS**

756426-58-1	9Cl-PF3ONS (F-53B Major)	3.6 U	7.3	3.6	1.3	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.6 U	7.3	3.6	1.6	ng/l	
113507-82-7	PFEESA	1.8 U	7.3	1.8	0.71	ng/l	

**FLUOROTELOMER CARBOXYLIC ACIDS**

356-02-5	3:3 Fluorotelomer carboxylate	9.1 U	18	9.1	4.1	ng/l	
914637-49-3	5:3 Fluorotelomer carboxylate	18 U	91	18	7.9	ng/l	
812-70-4	7:3 Fluorotelomer carboxylate	18 U	91	18	7.1	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	65%	63%	20-150%
	13C5-PFPeA	92%	81%	20-150%
	13C5-PFHxA	110%	107%	20-150%
	13C4-PFHpA	108%	107%	20-150%
	13C8-PFOA	105%	101%	20-150%
	13C9-PFNA	101%	102%	20-150%
	13C6-PFDA	97%	100%	20-150%
	13C7-PFUnDA	97%	102%	20-150%
	13C2-PFDoDA	89%	92%	20-150%
	13C2-PFTeDA	66%	62%	20-150%
	13C3-PFBS	110%	101%	20-150%
	13C3-PFHxS	109%	93%	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

4.2  
4

## Report of Analysis

Client Sample ID:	AF-RHMW02-WGFD01LF-2305W1		Date Sampled:	05/05/23
Lab Sample ID:	FC5890-2		Date Received:	05/06/23
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	101%	101%	20-150%
	13C8-FOSA	78%	84%	20-150%
	d3-MeFOSA	76%	69%	20-150%
	d5-EtFOSA	70%	72%	20-150%
	d3-MeFOSAA	95%	118%	20-150%
	d5-EtFOSAA	104%	126%	20-150%
	d7-MeFOSE	68%	59%	20-150%
	d9-EtFOSE	78%	65%	20-150%
	13C2-4:2FTS	163%	168%	20-180%
	13C2-6:2FTS	122%	128%	20-180%
	13C2-8:2FTS	102%	114%	20-180%
	13C3-HFPO-DA	87%	79%	20-150%

(a) Confirmation run.

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-RHMW03-WGN01LF-2305W1		
Lab Sample ID:	FC5890-3	Date Sampled:	05/05/23
Matrix:	AQ - Ground Water	Date Received:	05/06/23
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	4Q44183.D	1	05/10/23 01:23	MV	05/08/23 10:30	OP96784	S4Q639
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
---------	----------	--------	-----	-----	----	-------	---

**PERFLUOROALKYL CARBOXYLIC ACIDS**

375-22-4	Perfluorobutanoic acid	1.8	15	3.8	1.8	ng/l	J
2706-90-3	Perfluoropentanoic acid	3.3	7.5	1.9	0.89	ng/l	J
307-24-4	Perfluorohexanoic acid	2.0	3.8	1.9	0.47	ng/l	J
375-85-9	Perfluoroheptanoic acid	1.6	3.8	1.9	0.47	ng/l	J
335-67-1	Perfluorooctanoic acid	0.94 U	3.8	0.94	0.47	ng/l	
375-95-1	Perfluorononanoic acid	1.9 U	3.8	1.9	0.58	ng/l	
335-76-2	Perfluorodecanoic acid	1.9 U	3.8	1.9	0.47	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.9 U	3.8	1.9	0.57	ng/l	
307-55-1	Perfluorododecanoic acid	1.9 U	3.8	1.9	0.57	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.9 U	3.8	1.9	0.79	ng/l	
376-06-7	Perfluorotetradecanoic acid	1.9 U	3.8	1.9	0.47	ng/l	

**PERFLUOROALKYL SULFONIC ACIDS**

375-73-5	Perfluorobutanesulfonic acid	1.9 U	3.8	1.9	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	3.8	1.9	0.66	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	1.9 U	3.8	1.9	0.47	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.9 U	3.8	1.9	0.51	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.9 U	3.8	1.9	0.54	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.9 U	3.8	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	5.3	19	7.5	3.3	ng/l	J
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	3.8	1.9	0.63	ng/l	
31506-32-8	MeFOSA	3.8 U	7.5	3.8	0.94	ng/l	
4151-50-2	EtFOSA	3.8 U	7.5	3.8	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-RHMW03-WGN01LF-2305W1		Date Sampled:	05/05/23
Lab Sample ID:	FC5890-3	Date Received:	05/06/23	
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
---------	----------	--------	-----	-----	----	-------	---

**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	19 U	38	19	4.1	ng/l	
1691-99-2	EtFOSE	19 U	38	19	7.0	ng/l	

**PER and POLYFLUOROETHER CARBOXYLIC ACIDS**

13252-13-6	HFPO-DA (GenX)	1.9 U	3.8	1.9	0.94	ng/l	
919005-14-4	ADONA	3.8 U	7.5	3.8	1.8	ng/l	
377-73-1	PFMPA	1.9 U	7.5	1.9	0.94	ng/l	
863090-89-5	PFMBA	3.8 U	7.5	3.8	1.1	ng/l	
151772-58-6	NFDHA	3.8 U	7.5	3.8	1.1	ng/l	

**PER and POLYFLUOROETHER SULFONIC ACIDS**

756426-58-1	9Cl-PF3ONS (F-53B Major)	3.8 U	7.5	3.8	1.3	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.8 U	7.5	3.8	1.7	ng/l	
113507-82-7	PFEESA	1.9 U	7.5	1.9	0.74	ng/l	

**FLUOROTELOMER CARBOXYLIC ACIDS**

356-02-5	3:3 Fluorotelomer carboxylate	9.4 U	19	9.4	4.3	ng/l	
914637-49-3	5:3 Fluorotelomer carboxylate	19 U	94	19	8.2	ng/l	
812-70-4	7:3 Fluorotelomer carboxylate	19 U	94	19	7.4	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	92%		20-150%
	13C5-PFPeA	104%		20-150%
	13C5-PFHxA	109%		20-150%
	13C4-PFHpA	113%		20-150%
	13C8-PFOA	107%		20-150%
	13C9-PFNA	111%		20-150%
	13C6-PFDA	109%		20-150%
	13C7-PFUnDA	101%		20-150%
	13C2-PFDoDA	84%		20-150%
	13C2-PFTeDA	69%		20-150%
	13C3-PFBS	109%		20-150%
	13C3-PFHxS	97%		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-RHMW03-WGN01LF-2305W1		Date Sampled:	05/05/23
Lab Sample ID:	FC5890-3		Date Received:	05/06/23
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	92%		20-150%
	13C8-FOSA	86%		20-150%
	d3-MeFOSA	75%		20-150%
	d5-EtFOSA	75%		20-150%
	d3-MeFOSAA	113%		20-150%
	d5-EtFOSAA	111%		20-150%
	d7-MeFOSE	62%		20-150%
	d9-EtFOSE	64%		20-150%
	13C2-4:2FTS	140%		20-180%
	13C2-6:2FTS	110%		20-180%
	13C2-8:2FTS	123%		20-180%
	13C3-HFPO-DA	92%		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

FC5890

COC #: 2305W1AFSG01

SGS - ORLANDO JOB # :

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Client / Reporting Information			Project Information										Analytical Information				Matrix Codes
Company Name: AECOM			Project Name: N6274223F0104 RH Fire Suppression System														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 Manager: Watson Tanji Email: watson.tanji@aecom.com			Project # 60697810														
Phone #: 303-796-4624 / 808-954-4512			Fax #										PFAS EPA Draft: 1633				
Sampler(s) Name(s) (Printed) Sampler 1: <i>ATB/CC/ALB</i> Sampler 2: <i>WAT YIM</i>			Client Purchase Order #														
SGS Orlando Sample #	Field ID / Point of Collection	DATE	TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	POME	PCD	NOSH	PAC3	PSS3A	MACH-ZNAC	DI WATER	MECH	LAB USE ONLY	
1	AF-RHMW02-WGN01LF-2305W1	5/15/23	0955	GA MY	GW	3		X								X	
2	AF-RHMW02-WGFD01LF-2305W1	5/15/23	0955	GA MY	GW	3		X								X	
																INITIAL ASSESSMENT	<i>SP</i>
																LABEL VERIFICATION	<i>W</i>
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 016-92539145				
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					
1 <i>ATB/CC/ALB</i>		5/15/23		2 <i>ALEX EDWARDS</i>		5/15/23		3 <i>ALEX EDWARDS</i>		5/15/23		4 <i>United Cargo</i>					
5 <i>United Cargo</i>				6 <i>IRH</i>		5/16/23		7				8					
Lab Use Only: Cooler Temperature (s) Celsius (corrected): <i>16.6 IRH</i>													<a href="http://www.sgs.com/en/terms-and-conditions">http://www.sgs.com/en/terms-and-conditions</a>				

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FC5890: Chain of Custody

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SGS North America Inc - Orlando  
Chain of Custody

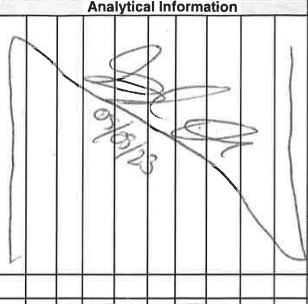
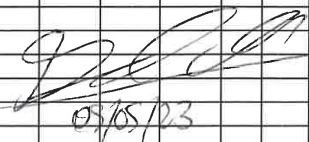
4405 Vineland Road, Suite C-15 Orlando, FL 32811  
TEL: 407-425-6700 FAX: 407-425-0707  
www.sgs.com

FC5890

COC #: 2305W1AFSG02

SGS - ORLANDO JOB # :

PAGE 1 OF 1

Client / Reporting Information		Project Information										Analytical Information										Matrix Codes
Company Name: AECOM		Project Name: N6274223F0104 RH Fire Suppression System																				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 Manager: Watson Tani Email: watson.tani@aecom.com		Project # 60697810																				
Phone #: 303-796-4624 / 808-954-4512		Fax #										PFAS EPA Draft 1633										
Sampler(s) Name(s) (Printed) Sampler 1: <i>GABRIEL ALEX</i> Sampler 2: <i>MATT YM</i>		Client Purchase Order #																				
SGS Orlando Sample #	Field ID / Point of Collection	COLLECTION			CONTAINER INFORMATION										LAB USE ONLY							
		DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	PURGE	PC	NaOH	HNO3	H2SO4	NaOH-ZnAC	DI WATER		WASH						
3	AF-RHMW03-WGN01-LF-2305W1	05/03/23	1125	MY, GA	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 United AWR 016-92539145										
Rush T/A Data Available VIA Email or Lablink		Sample Custody must be documented below each time samples change possession, including courier delivery.																				
1 Relinquished by Sampler/Affiliation <i>Gabriel Alex Aecom</i>	Date Time: <i>05/03/23</i>	2 Received By/Affiliation <i>Alex Edwards A/Ecom</i>	3 Relinquished By/Affiliation <i>Alex Edwards</i>	Date Time: <i>5/10/23</i>	4 Received By/Affiliation <i>United Cargo</i>	5 Relinquished by/Affiliation <i>United Cargo</i>	Date Time: <i>05/06/23 1430</i>	6 Received By/Affiliation <i>[Signature]</i>	7 Relinquished By/Affiliation	Date Time:	8 Received By/Affiliation											
Lab Use Only: Cooler Temperature (e) 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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FC5890: Chain of Custody

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## SGS Sample Receipt Summary

Job Number: FC5890

Client: AECOM

Project: N6274223F0104 RH Fire Suppression System

Date / Time Received: 5/6/2023 2:30:00 PM

Delivery Method: United Cargo/Airspace

Airbill #'s: United Cargo AWB #: 016-92539145

Therm ID: IR 1;

Therm CF: -0.1;

# of Coolers: 1

Cooler Temps (Raw Measured) °C: Cooler 1: (2.7);

Cooler Temps (Corrected) °C: Cooler 1: (2.6);

**Cooler Information**

	Y	or	N
1. Custody Seals Present	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Custody Seals Intact	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Temp criteria achieved	<input checked="" type="checkbox"/>		<input type="checkbox"/>
4. Cooler temp verification	IR Gun		
5. Cooler media	Ice (Bag)		

**Trip Blank Information**

	Y	or	N	N/A
1. Trip Blank present / cooler	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Trip Blank listed on COC	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
	W	or	S	N/A
3. Type Of TB Received	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Sample Information**

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

**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: SHAYLAP

Date: 5/6/2023 2:30:00 PM

Reviewer: SP

Date: 5/7/2023

FC5890: Chain of Custody

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# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC5890  
**Account:** AECOM, INC.  
**Project:** N6274223F0104 RH Fire Suppression System  
**Collected:** 05/05/23

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

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

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\* Sample used for QC is not from job FC5890

5.2  
5

## MS Semi-volatiles

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### QC Data Summaries

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**Includes the following where applicable:**

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

# Instrument Blank

Job Number: FC5890  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S4Q639-IBLK	4Q44136.D	1	05/09/23	MV	n/a	n/a	S4Q639

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5890-3

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.016	0.0019	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0080	0.00094	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.00050	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.00050	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.00050	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.00061	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0040	0.00050	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0040	0.00060	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.00060	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.00084	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0040	0.00050	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.00050	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0050	0.0011	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.00070	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0040	0.00050	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.00054	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0040	0.00057	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0040	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	0.0040	0.00067	ug/l	
31506-32-8	MeFOSA	ND	0.0080	0.0010	ug/l	
4151-50-2	EtFOSA	ND	0.0080	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	0.040	0.0044	ug/l	
1691-99-2	EtFOSE	ND	0.040	0.0074	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0040	0.0010	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0019	ug/l	
377-73-1	PFMPA	ND	0.0080	0.0010	ug/l	
863090-89-5	PFMBA	ND	0.0080	0.0011	ug/l	
151772-58-6	NFDHA	ND	0.0080	0.0012	ug/l	
756426-58-19	Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0014	ug/l	
763051-92-91	Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0018	ug/l	

# Instrument Blank

Job Number: FC5890  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S4Q639-IBLK	4Q44136.D	1	05/09/23	MV	n/a	n/a	S4Q639

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5890-3

CAS No.	Compound	Result	RL	MDL	Units	Q
113507-82-7	PFEESA	ND	0.0080	0.00078	ug/l	
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.020	0.0045	ug/l	
914637-49-35:3	Fluorotelomer carboxylate	ND	0.10	0.0087	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.10	0.0079	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C4-PFBA	101% 20-150%
	13C5-PFPeA	105% 20-150%
	13C5-PFHxA	98% 20-150%
	13C4-PFHpA	103% 20-150%
	13C8-PFOA	102% 20-150%
	13C9-PFNA	107% 20-150%
	13C6-PFDA	97% 20-150%
	13C7-PFUnDA	99% 20-150%
	13C2-PFDoDA	97% 20-150%
	13C2-PFTeDA	93% 20-150%
	13C3-PFBS	100% 20-150%
	13C3-PFHxS	93% 20-150%
	13C8-PFOS	104% 20-150%
	13C8-FOSA	109% 20-150%
	d3-MeFOSA	94% 20-150%
	d5-EtFOSA	103% 20-150%
	d3-MeFOSAA	100% 20-150%
	d5-EtFOSAA	108% 20-150%
	d7-MeFOSE	85% 20-150%
	d9-EtFOSE	90% 20-150%
	13C2-4:2FTS	103% 20-180%
	13C2-6:2FTS	111% 20-180%
	13C2-8:2FTS	116% 20-180%
	13C3-HFPO-DA	93% 20-150%

6.1.1

6



# Instrument Blank

Job Number: FC5890  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q268-IBLK	6Q17746.D	1	05/12/23	MV	n/a	n/a	S6Q268

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5890-1, FC5890-2

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.016	0.0019	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0080	0.00094	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.00050	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.00050	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.00050	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.00061	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0040	0.00050	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0040	0.00060	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.00060	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.00084	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0040	0.00050	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.00050	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0050	0.0011	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.00070	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0040	0.00050	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.00054	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0040	0.00057	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0040	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	0.0040	0.00067	ug/l	
31506-32-8	MeFOSA	ND	0.0080	0.0010	ug/l	
4151-50-2	EtFOSA	ND	0.0080	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	0.040	0.0044	ug/l	
1691-99-2	EtFOSE	ND	0.040	0.0074	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0040	0.0010	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0019	ug/l	
377-73-1	PFMPA	ND	0.0080	0.0010	ug/l	
863090-89-5	PFMBA	ND	0.0080	0.0011	ug/l	
151772-58-6	NFDHA	ND	0.0080	0.0012	ug/l	
756426-58-19	Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0014	ug/l	
763051-92-91	Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0018	ug/l	

# Instrument Blank

Job Number: FC5890  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q268-IBLK	6Q17746.D	1	05/12/23	MV	n/a	n/a	S6Q268

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5890-1, FC5890-2

CAS No.	Compound	Result	RL	MDL	Units	Q
113507-82-7	PFEESA	ND	0.0080	0.00078	ug/l	
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.020	0.0045	ug/l	
914637-49-35:3	Fluorotelomer carboxylate	ND	0.10	0.0087	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.10	0.0079	ug/l	

CAS No.	ID Standard Recoveries	Limits	
	13C4-PFBA	100%	20-150%
	13C5-PFPeA	97%	20-150%
	13C5-PFHxA	99%	20-150%
	13C4-PFHpA	101%	20-150%
	13C8-PFOA	105%	20-150%
	13C9-PFNA	96%	20-150%
	13C6-PFDA	118%	20-150%
	13C7-PFUnDA	116%	20-150%
	13C2-PFDoDA	107%	20-150%
	13C2-PFTeDA	108%	20-150%
	13C3-PFBS	106%	20-150%
	13C3-PFHxS	103%	20-150%
	13C8-PFOS	104%	20-150%
	13C8-FOSA	110%	20-150%
	d3-MeFOSA	107%	20-150%
	d5-EtFOSA	102%	20-150%
	d3-MeFOSAA	107%	20-150%
	d5-EtFOSAA	114%	20-150%
	d7-MeFOSE	115%	20-150%
	d9-EtFOSE	103%	20-150%
	13C2-4:2FTS	99%	20-180%
	13C2-6:2FTS	106%	20-180%
	13C2-8:2FTS	100%	20-180%
	13C3-HFPO-DA	98%	20-150%

# Continuing Calibration Blank

Job Number: FC5890  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S4Q639-ICCB	4Q44174.D	1	05/09/23	MV	n/a	n/a	S4Q639

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5890-1, FC5890-2, FC5890-3

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.016	0.0019	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0080	0.00094	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.00050	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.00050	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.00050	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.00061	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0040	0.00050	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0040	0.00060	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.00060	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.00084	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0040	0.00050	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.00050	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0050	0.0011	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.00070	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0040	0.00050	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.00054	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0040	0.00057	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0040	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	0.0040	0.00067	ug/l	
31506-32-8	MeFOSA	ND	0.0080	0.0010	ug/l	
4151-50-2	EtFOSA	ND	0.0080	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	0.040	0.0044	ug/l	
1691-99-2	EtFOSE	ND	0.040	0.0074	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0040	0.0010	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0019	ug/l	
377-73-1	PFMPA	ND	0.0080	0.0010	ug/l	
863090-89-5	PFMBA	ND	0.0080	0.0011	ug/l	
151772-58-6	NFDHA	ND	0.0080	0.0012	ug/l	
756426-58-19	Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0014	ug/l	
763051-92-91	Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0018	ug/l	

# Continuing Calibration Blank

Job Number: FC5890  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S4Q639-ICCB	4Q44174.D	1	05/09/23	MV	n/a	n/a	S4Q639

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5890-1, FC5890-2, FC5890-3

CAS No.	Compound	Result	RL	MDL	Units	Q
113507-82-7	PFEESA	ND	0.0080	0.00078	ug/l	
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.020	0.0045	ug/l	
914637-49-35:3	Fluorotelomer carboxylate	ND	0.10	0.0087	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.10	0.0079	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C4-PFBA	102% 20-150%
	13C5-PFPeA	102% 20-150%
	13C5-PFHxA	100% 20-150%
	13C4-PFHpA	101% 20-150%
	13C8-PFOA	102% 20-150%
	13C9-PFNA	106% 20-150%
	13C6-PFDA	99% 20-150%
	13C7-PFUnDA	108% 20-150%
	13C2-PFDoDA	103% 20-150%
	13C2-PFTeDA	102% 20-150%
	13C3-PFBS	94% 20-150%
	13C3-PFHxS	95% 20-150%
	13C8-PFOS	94% 20-150%
	13C8-FOSA	102% 20-150%
	d3-MeFOSA	88% 20-150%
	d5-EtFOSA	91% 20-150%
	d3-MeFOSAA	107% 20-150%
	d5-EtFOSAA	108% 20-150%
	d7-MeFOSE	76% 20-150%
	d9-EtFOSE	79% 20-150%
	13C2-4:2FTS	115% 20-180%
	13C2-6:2FTS	129% 20-180%
	13C2-8:2FTS	143% 20-180%
	13C3-HFPO-DA	89% 20-150%

# Continuing Calibration Blank

Job Number: FC5890  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S4Q639-ICCB	4Q44185.D	1	05/10/23	MV	n/a	n/a	S4Q639

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5890-1, FC5890-2, FC5890-3

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.016	0.0019	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0080	0.00094	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.00050	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.00050	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.00050	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.00061	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0040	0.00050	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0040	0.00060	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.00060	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.00084	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0040	0.00050	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.00050	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0050	0.0011	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.00070	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0040	0.00050	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.00054	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0040	0.00057	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0040	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	0.0040	0.00067	ug/l	
31506-32-8	MeFOSA	ND	0.0080	0.0010	ug/l	
4151-50-2	EtFOSA	ND	0.0080	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	0.040	0.0044	ug/l	
1691-99-2	EtFOSE	ND	0.040	0.0074	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0040	0.0010	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0019	ug/l	
377-73-1	PFMPA	ND	0.0080	0.0010	ug/l	
863090-89-5	PFMBA	ND	0.0080	0.0011	ug/l	
151772-58-6	NFDHA	ND	0.0080	0.0012	ug/l	
756426-58-19	Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0014	ug/l	
763051-92-91	Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0018	ug/l	

# Continuing Calibration Blank

Job Number: FC5890  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S4Q639-ICCB	4Q44185.D	1	05/10/23	MV	n/a	n/a	S4Q639

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5890-1, FC5890-2, FC5890-3

CAS No.	Compound	Result	RL	MDL	Units	Q
113507-82-7	PFEESA	ND	0.0080	0.00078	ug/l	
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.020	0.0045	ug/l	
914637-49-35:3	Fluorotelomer carboxylate	ND	0.10	0.0087	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.10	0.0079	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C4-PFBA	103% 20-150%
	13C5-PFPeA	99% 20-150%
	13C5-PFHxA	100% 20-150%
	13C4-PFHpA	101% 20-150%
	13C8-PFOA	101% 20-150%
	13C9-PFNA	101% 20-150%
	13C6-PFDA	107% 20-150%
	13C7-PFUnDA	109% 20-150%
	13C2-PFDoDA	105% 20-150%
	13C2-PFTeDA	98% 20-150%
	13C3-PFBS	101% 20-150%
	13C3-PFHxS	104% 20-150%
	13C8-PFOS	91% 20-150%
	13C8-FOSA	95% 20-150%
	d3-MeFOSA	89% 20-150%
	d5-EtFOSA	87% 20-150%
	d3-MeFOSAA	106% 20-150%
	d5-EtFOSAA	114% 20-150%
	d7-MeFOSE	74% 20-150%
	d9-EtFOSE	77% 20-150%
	13C2-4:2FTS	148% 20-180%
	13C2-6:2FTS	146% 20-180%
	13C2-8:2FTS	153% 20-180%
	13C3-HFPO-DA	89% 20-150%

# Method Blank Summary

Job Number: FC5890  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96784-MB	4Q44177.D	1	05/09/23	MV	05/08/23	OP96784	S4Q639

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5890-1, FC5890-2, FC5890-3

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.016	0.0019	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0080	0.00094	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.00050	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.00050	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.00050	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.00061	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0040	0.00050	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0040	0.00060	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.00060	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.00084	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0040	0.00050	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.00050	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0050	0.0011	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.00070	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0040	0.00050	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.00054	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0040	0.00057	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0040	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	0.0040	0.00067	ug/l	
31506-32-8	MeFOSA	ND	0.0080	0.0010	ug/l	
4151-50-2	EtFOSA	ND	0.0080	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	0.040	0.0044	ug/l	
1691-99-2	EtFOSE	ND	0.040	0.0074	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0040	0.0010	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0019	ug/l	
377-73-1	PFMPA	ND	0.0080	0.0010	ug/l	
863090-89-5	PFMBA	ND	0.0080	0.0011	ug/l	
151772-58-6	NFDHA	ND	0.0080	0.0012	ug/l	
756426-58-19	Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0014	ug/l	
763051-92-91	Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0018	ug/l	

# Method Blank Summary

Job Number: FC5890  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96784-MB	4Q44177.D	1	05/09/23	MV	05/08/23	OP96784	S4Q639

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5890-1, FC5890-2, FC5890-3

CAS No.	Compound	Result	RL	MDL	Units	Q
113507-82-7	PFEESA	ND	0.0080	0.00078	ug/l	
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.020	0.0045	ug/l	
914637-49-35:3	Fluorotelomer carboxylate	ND	0.10	0.0087	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.10	0.0079	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C4-PFBA	113% 20-150%
	13C5-PFPeA	115% 20-150%
	13C5-PFHxA	113% 20-150%
	13C4-PFHpA	111% 20-150%
	13C8-PFOA	110% 20-150%
	13C9-PFNA	109% 20-150%
	13C6-PFDA	115% 20-150%
	13C7-PFUnDA	113% 20-150%
	13C2-PFDoDA	107% 20-150%
	13C2-PFTeDA	92% 20-150%
	13C3-PFBS	108% 20-150%
	13C3-PFHxS	105% 20-150%
	13C8-PFOS	110% 20-150%
	13C8-FOSA	92% 20-150%
	d3-MeFOSA	80% 20-150%
	d5-EtFOSA	85% 20-150%
	d3-MeFOSAA	128% 20-150%
	d5-EtFOSAA	117% 20-150%
	d7-MeFOSE	70% 20-150%
	d9-EtFOSE	75% 20-150%
	13C2-4:2FTS	154% 20-180%
	13C2-6:2FTS	147% 20-180%
	13C2-8:2FTS	153% 20-180%
	13C3-HFPO-DA	100% 20-150%



# Method Blank Summary

Job Number: FC5890  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96784-MB	6Q17751.D	1	05/12/23	MV	05/08/23	OP96784	S6Q268

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5890-1, FC5890-2, FC5890-3

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.016	0.0019	ug/l	
2706-90-3	Perfluoropentanoic acid	ND	0.0080	0.00094	ug/l	
307-24-4	Perfluorohexanoic acid	ND	0.0040	0.00050	ug/l	
375-85-9	Perfluoroheptanoic acid	ND	0.0040	0.00050	ug/l	
335-67-1	Perfluorooctanoic acid	ND	0.0040	0.00050	ug/l	
375-95-1	Perfluorononanoic acid	ND	0.0040	0.00061	ug/l	
335-76-2	Perfluorodecanoic acid	ND	0.0040	0.00050	ug/l	
2058-94-8	Perfluoroundecanoic acid	ND	0.0040	0.00060	ug/l	
307-55-1	Perfluorododecanoic acid	ND	0.0040	0.00060	ug/l	
72629-94-8	Perfluorotridecanoic acid	ND	0.0040	0.00084	ug/l	
376-06-7	Perfluorotetradecanoic acid	ND	0.0040	0.00050	ug/l	
375-73-5	Perfluorobutanesulfonic acid	ND	0.0040	0.00050	ug/l	
2706-91-4	Perfluoropentanesulfonic acid	ND	0.0050	0.0011	ug/l	
355-46-4	Perfluorohexanesulfonic acid	ND	0.0040	0.00070	ug/l	
375-92-8	Perfluoroheptanesulfonic acid	ND	0.0040	0.00050	ug/l	
1763-23-1	Perfluorooctanesulfonic acid	ND	0.0040	0.00054	ug/l	
68259-12-1	Perfluorononanesulfonic acid	ND	0.0040	0.00057	ug/l	
335-77-3	Perfluorodecanesulfonic acid	ND	0.0040	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	0.0040	0.00067	ug/l	
31506-32-8	MeFOSA	ND	0.0080	0.0010	ug/l	
4151-50-2	EtFOSA	ND	0.0080	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	0.040	0.0044	ug/l	
1691-99-2	EtFOSE	ND	0.040	0.0074	ug/l	
13252-13-6	HFPO-DA (GenX)	ND	0.0040	0.0010	ug/l	
919005-14-4	ADONA	ND	0.0080	0.0019	ug/l	
377-73-1	PFMPA	ND	0.0080	0.0010	ug/l	
863090-89-5	PFMBA	ND	0.0080	0.0011	ug/l	
151772-58-6	NFDHA	ND	0.0080	0.0012	ug/l	
756426-58-19	Cl-PF3ONS (F-53B Major)	ND	0.0080	0.0014	ug/l	
763051-92-91	Cl-PF3OUdS (F-53B Minor)	ND	0.0080	0.0018	ug/l	

# Method Blank Summary

Job Number: FC5890  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96784-MB	6Q17751.D	1	05/12/23	MV	05/08/23	OP96784	S6Q268

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5890-1, FC5890-2, FC5890-3

CAS No.	Compound	Result	RL	MDL	Units	Q
113507-82-7	PFEESA	ND	0.0080	0.00078	ug/l	
356-02-5	3:3 Fluorotelomer carboxylate	ND	0.020	0.0045	ug/l	
914637-49-35:3	Fluorotelomer carboxylate	ND	0.10	0.0087	ug/l	
812-70-4	7:3 Fluorotelomer carboxylate	ND	0.10	0.0079	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C4-PFBA	113% 20-150%
	13C5-PFPeA	118% 20-150%
	13C5-PFHxA	116% 20-150%
	13C4-PFHpA	114% 20-150%
	13C8-PFOA	108% 20-150%
	13C9-PFNA	108% 20-150%
	13C6-PFDA	116% 20-150%
	13C7-PFUnDA	114% 20-150%
	13C2-PFDoDA	105% 20-150%
	13C2-PFTeDA	103% 20-150%
	13C3-PFBS	118% 20-150%
	13C3-PFHxS	109% 20-150%
	13C8-PFOS	134% 20-150%
	13C8-FOSA	91% 20-150%
	d3-MeFOSA	93% 20-150%
	d5-EtFOSA	95% 20-150%
	d3-MeFOSAA	110% 20-150%
	d5-EtFOSAA	123% 20-150%
	d7-MeFOSE	90% 20-150%
	d9-EtFOSE	98% 20-150%
	13C2-4:2FTS	117% 20-180%
	13C2-6:2FTS	116% 20-180%
	13C2-8:2FTS	117% 20-180%
	13C3-HFPO-DA	113% 20-150%

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# Blank Spike Summary

Job Number: FC5890  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96784-LLBS	4Q44176.D	1	05/09/23	MV	05/08/23	OP96784	S4Q639

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5890-1, FC5890-2, FC5890-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.03	0.0268	89	40-150
2706-90-3	Perfluoropentanoic acid	0.015	0.0131	87	40-150
307-24-4	Perfluorohexanoic acid	0.0075	0.0067	89	40-150
375-85-9	Perfluoroheptanoic acid	0.0075	0.0067	89	40-150
335-67-1	Perfluorooctanoic acid	0.0075	0.0063	84	40-150
375-95-1	Perfluorononanoic acid	0.0075	0.0067	89	40-150
335-76-2	Perfluorodecanoic acid	0.0075	0.0067	89	40-150
2058-94-8	Perfluoroundecanoic acid	0.0075	0.0077	103	40-150
307-55-1	Perfluorododecanoic acid	0.0075	0.0064	85	40-150
72629-94-8	Perfluorotridecanoic acid	0.0075	0.0068	91	40-150
376-06-7	Perfluorotetradecanoic acid	0.0075	0.0065	87	40-150
375-73-5	Perfluorobutanesulfonic acid	0.00665	0.0058	87	40-150
2706-91-4	Perfluoropentanesulfonic acid	0.00706	0.0061	86	40-150
355-46-4	Perfluorohexanesulfonic acid	0.00686	0.0065	95	40-150
375-92-8	Perfluoroheptanesulfonic acid	0.00715	0.0063	88	40-150
1763-23-1	Perfluorooctanesulfonic acid	0.00696	0.0064	92	40-150
68259-12-1	Perfluorononanesulfonic acid	0.00722	0.0064	89	40-150
335-77-3	Perfluorodecanesulfonic acid	0.00724	0.0062	86	40-150
79780-39-5	Perfluorododecanesulfonic aci	0.00728	0.0061	84	40-150
757124-72-44:2	Fluorotelomer sulfonate	0.0281	0.0238	85	40-150
27619-97-2	6:2 Fluorotelomer sulfonate	0.0285	0.0259	91	40-150
39108-34-4	8:2 Fluorotelomer sulfonate	0.0288	0.0298	103	40-150
754-91-6	PFOSA	0.0075	0.0072	96	40-150
31506-32-8	MeFOSA	0.015	0.0141	94	40-150
4151-50-2	EtFOSA	0.015	0.0141	94	40-150
2355-31-9	MeFOSAA	0.0075	0.0070	93	40-150
2991-50-6	EtFOSAA	0.0075	0.0061	81	40-150
24448-09-7	MeFOSE	0.0375	0.0356	95	40-150
1691-99-2	EtFOSE	0.0375	0.0289	77	40-150
13252-13-6	HFPO-DA (GenX)	0.015	0.0138	92	40-150
919005-14-4	ADONA	0.0142	0.0139	98	40-150
377-73-1	PFMPA	0.015	0.0138	92	40-150
863090-89-5	PFMBA	0.015	0.0134	89	40-150
151772-58-6	NFDHA	0.015	0.0103	69	40-150
756426-58-19	Cl-PF3ONS (F-53B Major)	0.014	0.0138	98	40-150
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.0142	0.0131	92	40-150

\* = Outside of Control Limits.

# Blank Spike Summary

Job Number: FC5890  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96784-LLBS	4Q44176.D	1	05/09/23	MV	05/08/23	OP96784	S4Q639

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5890-1, FC5890-2, FC5890-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
113507-82-7	PFEESA	0.0134	0.0121	91	40-150
356-02-5	3:3 Fluorotelomer carboxylate	0.0375	0.0251	67	40-150
914637-49-35:3	Fluorotelomer carboxylate	0.188	0.164	87	40-150
812-70-4	7:3 Fluorotelomer carboxylate	0.188	0.187	100	40-150

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	112%	20-150%
	13C5-PFPeA	116%	20-150%
	13C5-PFHxA	113%	20-150%
	13C4-PFHpA	116%	20-150%
	13C8-PFOA	115%	20-150%
	13C9-PFNA	110%	20-150%
	13C6-PFDA	109%	20-150%
	13C7-PFUnDA	106%	20-150%
	13C2-PFDoDA	103%	20-150%
	13C2-PFTeDA	94%	20-150%
	13C3-PFBS	105%	20-150%
	13C3-PFHxS	104%	20-150%
	13C8-PFOS	108%	20-150%
	13C8-FOSA	73%	20-150%
	d3-MeFOSA	68%	20-150%
	d5-EtFOSA	72%	20-150%
	d3-MeFOSAA	114%	20-150%
	d5-EtFOSAA	112%	20-150%
	d7-MeFOSE	52%	20-150%
	d9-EtFOSE	59%	20-150%
	13C2-4:2FTS	144%	20-180%
	13C2-6:2FTS	145%	20-180%
	13C2-8:2FTS	132%	20-180%
	13C3-HFPO-DA	102%	20-150%

\* = Outside of Control Limits.

# Blank Spike Summary

Job Number: FC5890  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96784-BS	4Q44175.D	1	05/09/23	MV	05/08/23	OP96784	S4Q639

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5890-1, FC5890-2, FC5890-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.1	0.0895	90	40-150
2706-90-3	Perfluoropentanoic acid	0.05	0.0456	91	40-150
307-24-4	Perfluorohexanoic acid	0.025	0.0223	89	40-150
375-85-9	Perfluoroheptanoic acid	0.025	0.0232	93	40-150
335-67-1	Perfluorooctanoic acid	0.025	0.0218	87	40-150
375-95-1	Perfluorononanoic acid	0.025	0.0230	92	40-150
335-76-2	Perfluorodecanoic acid	0.025	0.0229	92	40-150
2058-94-8	Perfluoroundecanoic acid	0.025	0.0231	92	40-150
307-55-1	Perfluorododecanoic acid	0.025	0.0226	90	40-150
72629-94-8	Perfluorotridecanoic acid	0.025	0.0219	88	40-150
376-06-7	Perfluorotetradecanoic acid	0.025	0.0236	94	40-150
375-73-5	Perfluorobutanesulfonic acid	0.0222	0.0197	89	40-150
2706-91-4	Perfluoropentanesulfonic acid	0.0235	0.0206	88	40-150
355-46-4	Perfluorohexanesulfonic acid	0.0229	0.0222	97	40-150
375-92-8	Perfluoroheptanesulfonic acid	0.0238	0.0219	92	40-150
1763-23-1	Perfluorooctanesulfonic acid	0.0232	0.0223	96	40-150
68259-12-1	Perfluorononanesulfonic acid	0.0241	0.0219	91	40-150
335-77-3	Perfluorodecanesulfonic acid	0.0241	0.0215	89	40-150
79780-39-5	Perfluorododecanesulfonic aci	0.0243	0.0197	81	40-150
757124-72-44:2	Fluorotelomer sulfonate	0.0938	0.0879	94	40-150
27619-97-2	6:2 Fluorotelomer sulfonate	0.095	0.0866	91	40-150
39108-34-4	8:2 Fluorotelomer sulfonate	0.096	0.0939	98	40-150
754-91-6	PFOSA	0.025	0.0225	90	40-150
31506-32-8	MeFOSA	0.05	0.0496	99	40-150
4151-50-2	EtFOSA	0.05	0.0461	92	40-150
2355-31-9	MeFOSAA	0.025	0.0203	81	40-150
2991-50-6	EtFOSAA	0.025	0.0208	83	40-150
24448-09-7	MeFOSE	0.125	0.109	87	40-150
1691-99-2	EtFOSE	0.125	0.114	91	40-150
13252-13-6	HFPO-DA (GenX)	0.05	0.0477	95	40-150
919005-14-4	ADONA	0.0473	0.0485	103	40-150
377-73-1	PFMPA	0.05	0.0469	94	40-150
863090-89-5	PFMBA	0.05	0.0452	90	40-150
151772-58-6	NFDHA	0.05	0.0381	76	40-150
756426-58-19	Cl-PF3ONS (F-53B Major)	0.0468	0.0495	106	40-150
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.0473	0.0460	97	40-150

\* = Outside of Control Limits.

# Blank Spike Summary

Job Number: FC5890  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96784-BS	4Q44175.D	1	05/09/23	MV	05/08/23	OP96784	S4Q639

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5890-1, FC5890-2, FC5890-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
113507-82-7	PFEESA	0.0445	0.0393	88	40-150
356-02-5	3:3 Fluorotelomer carboxylate	0.125	0.0890	71	40-150
914637-49-35:3	Fluorotelomer carboxylate	0.625	0.566	91	40-150
812-70-4	7:3 Fluorotelomer carboxylate	0.625	0.662	106	40-150

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	111%	20-150%
	13C5-PFPeA	113%	20-150%
	13C5-PFHxA	111%	20-150%
	13C4-PFHpA	109%	20-150%
	13C8-PFOA	106%	20-150%
	13C9-PFNA	103%	20-150%
	13C6-PFDA	108%	20-150%
	13C7-PFUnDA	112%	20-150%
	13C2-PFDoDA	106%	20-150%
	13C2-PFTeDA	89%	20-150%
	13C3-PFBS	101%	20-150%
	13C3-PFHxS	100%	20-150%
	13C8-PFOS	106%	20-150%
	13C8-FOSA	74%	20-150%
	d3-MeFOSA	63%	20-150%
	d5-EtFOSA	74%	20-150%
	d3-MeFOSAA	119%	20-150%
	d5-EtFOSAA	117%	20-150%
	d7-MeFOSE	53%	20-150%
	d9-EtFOSE	56%	20-150%
	13C2-4:2FTS	129%	20-180%
	13C2-6:2FTS	143%	20-180%
	13C2-8:2FTS	143%	20-180%
	13C3-HFPO-DA	97%	20-150%

\* = Outside of Control Limits.

# Matrix Spike Summary

Job Number: FC5890  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96784-MS	4Q44180.D	1	05/10/23	MV	05/08/23	OP96784	S4Q639
FC5890-1 <sup>a</sup>	4Q44179.D	1	05/10/23	MV	05/08/23	OP96784	S4Q639
FC5890-1	6Q17752.D	1	05/12/23	MV	05/08/23	OP96784	S6Q268

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5890-1, FC5890-2, FC5890-3

CAS No.	Compound	FC5890-1 ug/l	Spike Q	MS ug/l	MS %	Limits
375-22-4	Perfluorobutanoic acid	0.015 U <sup>b</sup>	0.0926	0.0859	93	40-150
2706-90-3	Perfluoropentanoic acid	0.0073 U <sup>b</sup>	0.0463	0.0544	118	40-150
307-24-4	Perfluorohexanoic acid	0.0036 U <sup>b</sup>	0.0231	0.0215	93	40-150
375-85-9	Perfluoroheptanoic acid	0.00056 U <sup>b</sup>	0.0231	0.0215	90	40-150
335-67-1	Perfluorooctanoic acid	0.0036 U <sup>b</sup>	0.0231	0.0214	92	40-150
375-95-1	Perfluorononanoic acid	0.0036 U <sup>b</sup>	0.0231	0.0195	84	40-150
335-76-2	Perfluorodecanoic acid	0.0036 U <sup>b</sup>	0.0231	0.0201	87	40-150
2058-94-8	Perfluoroundecanoic acid	0.0036 U <sup>b</sup>	0.0231	0.0214	92	40-150
307-55-1	Perfluorododecanoic acid	0.0036 U <sup>b</sup>	0.0231	0.0199	86	40-150
72629-94-8	Perfluorotridecanoic acid	0.0036 U <sup>b</sup>	0.0231	0.0173	75	40-150
376-06-7	Perfluorotetradecanoic acid	0.0036 U <sup>b</sup>	0.0231	0.0212	92	40-150
375-73-5	Perfluorobutanesulfonic acid	0.0036 U <sup>b</sup>	0.0205	0.0177	86	40-150
2706-91-4	Perfluoropentanesulfonic acid	0.0045 U <sup>b</sup>	0.0218	0.0209	96	40-150
355-46-4	Perfluorohexanesulfonic acid	0.0036 U <sup>b</sup>	0.0212	0.0210	99	40-150
375-92-8	Perfluoroheptanesulfonic acid	0.0036 U <sup>b</sup>	0.0221	0.0211	96	40-150
1763-23-1	Perfluorooctanesulfonic acid	0.0036 U <sup>b</sup>	0.0215	0.0213	99	40-150
68259-12-1	Perfluorononanesulfonic acid	0.0036 U <sup>b</sup>	0.0223	0.0191	86	40-150
335-77-3	Perfluorodecanesulfonic acid	0.0036 U <sup>b</sup>	0.0223	0.0177	79	40-150
79780-39-5	Perfluorododecanesulfonic aci	0.0045 U <sup>b</sup>	0.0225	0.0141	63	40-150
757124-72-44:2	Fluorotelomer sulfonate	0.018 U <sup>b</sup>	0.0868	0.0817	94	40-150
27619-97-2	6:2 Fluorotelomer sulfonate	0.018 U <sup>b</sup>	0.088	0.0892	101	40-150
39108-34-4	8:2 Fluorotelomer sulfonate	0.018 U <sup>b</sup>	0.0889	0.0997	112	40-150
754-91-6	PFOSA	0.0036 U <sup>b</sup>	0.0231	0.0223	96	40-150
31506-32-8	MeFOSA	0.0073 U <sup>b</sup>	0.0463	0.0439	95	40-150
4151-50-2	EtFOSA	0.0073 U <sup>b</sup>	0.0463	0.0429	93	40-150
2355-31-9	MeFOSAA	0.0045 U <sup>b</sup>	0.0231	0.0188	81	40-150
2991-50-6	EtFOSAA	0.0045 U <sup>b</sup>	0.0231	0.0199	86	40-150
24448-09-7	MeFOSE	0.036 U <sup>b</sup>	0.116	0.108	93	40-150
1691-99-2	EtFOSE	0.036 U <sup>b</sup>	0.116	0.0976	84	40-150
13252-13-6	HFPO-DA (GenX)	0.0036 U <sup>b</sup>	0.0463	0.0437	94	40-150
919005-14-4	ADONA	0.0073 U <sup>b</sup>	0.0438	0.0520	119	40-150
377-73-1	PFMPA	0.0073 U <sup>b</sup>	0.0463	0.0320	69	40-150
863090-89-5	PFMBA	0.0073 U <sup>b</sup>	0.0463	0.0507	110	40-150
151772-58-6	NFDHA	0.0073 U <sup>b</sup>	0.0463	0.0192	41	40-150
756426-58-19	Cl-PF3ONS (F-53B Major)	0.0073 U <sup>b</sup>	0.0433	0.0432	100	40-150
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.0073 U <sup>b</sup>	0.0438	0.0398	91	40-150

\* = Outside of Control Limits.

# Matrix Spike Summary

Job Number: FC5890  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96784-MS	4Q44180.D	1	05/10/23	MV	05/08/23	OP96784	S4Q639
FC5890-1 <sup>a</sup>	4Q44179.D	1	05/10/23	MV	05/08/23	OP96784	S4Q639
FC5890-1	6Q17752.D	1	05/12/23	MV	05/08/23	OP96784	S6Q268

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5890-1, FC5890-2, FC5890-3

CAS No.	Compound	FC5890-1 ug/l	Spike Q	MS ug/l	MS %	Limits
113507-82-7	PFEESA	0.0073 U <sup>b</sup>	0.0412	0.0357	87	40-150
356-02-5	3:3 Fluorotelomer carboxylate	0.018 U <sup>b</sup>	0.116	0.0606	52	40-150
914637-49-35:3	Fluorotelomer carboxylate	0.091 U <sup>b</sup>	0.579	0.685	118	40-150
812-70-4	7:3 Fluorotelomer carboxylate	0.091 U <sup>b</sup>	0.579	0.782	135	40-150

CAS No.	ID Standard Recoveries	MS	FC5890-1	FC5890-1	Limits
	13C4-PFBA	76%	66%	68%	20-150%
	13C5-PFPeA	88%	87%	95%	20-150%
	13C5-PFHxA	113%	114%	115%	20-150%
	13C4-PFHpA	120%	120%	115%	20-150%
	13C8-PFOA	114%	114%	107%	20-150%
	13C9-PFNA	114%	106%	120%	20-150%
	13C6-PFDA	113%	107%	110%	20-150%
	13C7-PFUnDA	105%	108%	103%	20-150%
	13C2-PFDoDA	101%	93%	88%	20-150%
	13C2-PFTeDA	65%	63%	69%	20-150%
	13C3-PFBS	121%	108%	113%	20-150%
	13C3-PFHxS	106%	106%	118%	20-150%
	13C8-PFOS	100%	104%	100%	20-150%
	13C8-FOSA	104%	83%	79%	20-150%
	d3-MeFOSA	85%	72%	74%	20-150%
	d5-EtFOSA	86%	71%	71%	20-150%
	d3-MeFOSAA	130%	125%	104%	20-150%
	d5-EtFOSAA	127%	125%	106%	20-150%
	d7-MeFOSE	76%	59%	69%	20-150%
	d9-EtFOSE	77%	61%	74%	20-150%
	13C2-4:2FTS	181%* <sup>c</sup>	153%	161%	20-180%
	13C2-6:2FTS	161%	141%	122%	20-180%
	13C2-8:2FTS	127%	118%	105%	20-180%
	13C3-HFPO-DA	89%	85%	90%	20-150%

- (a) Confirmation run.
- (b) Result is from Run #2.
- (c) Outside control limits.

\* = Outside of Control Limits.



# Duplicate Summary

Job Number: FC5890  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96784-DUP	6Q17757.D	1	05/12/23	MV	05/08/23	OP96784	S6Q268
FC5890-2 <sup>a</sup>	4Q44181.D	1	05/10/23	MV	05/08/23	OP96784	S4Q639
FC5890-2	6Q17755.D	1	05/12/23	MV	05/08/23	OP96784	S6Q268

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5890-1, FC5890-2, FC5890-3

CAS No.	Compound	FC5890-2 ug/l	DUP Q ug/l	Q	RPD	Limits
375-22-4	Perfluorobutanoic acid	0.015 U <sup>b</sup>	ND		nc	30
2706-90-3	Perfluoropentanoic acid	0.0073 U <sup>b</sup>	ND		nc	30
307-24-4	Perfluorohexanoic acid	0.00057 U <sup>b</sup>	0.00058 J	2		30
375-85-9	Perfluoroheptanoic acid	0.00071 U <sup>b</sup>	0.00063 J	12		30
335-67-1	Perfluorooctanoic acid	0.0036 U <sup>b</sup>	ND		nc	30
375-95-1	Perfluorononanoic acid	0.0036 U <sup>b</sup>	ND		nc	30
335-76-2	Perfluorodecanoic acid	0.0036 U <sup>b</sup>	ND		nc	30
2058-94-8	Perfluoroundecanoic acid	0.0036 U <sup>b</sup>	ND		nc	30
307-55-1	Perfluorododecanoic acid	0.0036 U <sup>b</sup>	ND		nc	30
72629-94-8	Perfluorotridecanoic acid	0.0036 U <sup>b</sup>	ND		nc	30
376-06-7	Perfluorotetradecanoic acid	0.0036 U <sup>b</sup>	ND		nc	30
375-73-5	Perfluorobutanesulfonic acid	0.0036 U <sup>b</sup>	ND		nc	30
2706-91-4	Perfluoropentanesulfonic acid	0.0045 U <sup>b</sup>	ND		nc	30
355-46-4	Perfluorohexanesulfonic acid	0.0036 U <sup>b</sup>	ND		nc	30
375-92-8	Perfluoroheptanesulfonic acid	0.0036 U <sup>b</sup>	ND		nc	30
1763-23-1	Perfluorooctanesulfonic acid	0.0036 U <sup>b</sup>	ND		nc	30
68259-12-1	Perfluorononanesulfonic acid	0.0036 U <sup>b</sup>	ND		nc	30
335-77-3	Perfluorodecanesulfonic acid	0.0036 U <sup>b</sup>	ND		nc	30
79780-39-5	Perfluorododecanesulfonic aci	0.0045 U <sup>b</sup>	ND		nc	30
757124-72-44:2	Fluorotelomer sulfonate	0.018 U <sup>b</sup>	ND		nc	30
27619-97-2	6:2 Fluorotelomer sulfonate	0.018 U <sup>b</sup>	0.0032 J	200*		30
39108-34-4	8:2 Fluorotelomer sulfonate	0.018 U <sup>b</sup>	ND		nc	30
754-91-6	PFOSA	0.0036 U <sup>b</sup>	ND		nc	30
31506-32-8	MeFOSA	0.0073 U <sup>b</sup>	ND		nc	30
4151-50-2	EtFOSA	0.0073 U <sup>b</sup>	ND		nc	30
2355-31-9	MeFOSAA	0.0045 U <sup>b</sup>	ND		nc	30
2991-50-6	EtFOSAA	0.0045 U <sup>b</sup>	ND		nc	30
24448-09-7	MeFOSE	0.036 U <sup>b</sup>	ND		nc	30
1691-99-2	EtFOSE	0.036 U <sup>b</sup>	ND		nc	30
13252-13-6	HFPO-DA (GenX)	0.0036 U <sup>b</sup>	ND		nc	30
919005-14-4	ADONA	0.0073 U <sup>b</sup>	ND		nc	30
377-73-1	PFMPA	0.0073 U <sup>b</sup>	ND		nc	30
863090-89-5	PFMBA	0.0073 U <sup>b</sup>	ND		nc	30
151772-58-6	NFDHA	0.0073 U <sup>b</sup>	ND		nc	30
756426-58-19	Cl-PF3ONS (F-53B Major)	0.0073 U <sup>b</sup>	ND		nc	30
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.0073 U <sup>b</sup>	ND		nc	30

\* = Outside of Control Limits.

# Duplicate Summary

Job Number: FC5890  
 Account: AECOMCOD AECOM, INC.  
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96784-DUP	6Q17757.D	1	05/12/23	MV	05/08/23	OP96784	S6Q268
FC5890-2 <sup>a</sup>	4Q44181.D	1	05/10/23	MV	05/08/23	OP96784	S4Q639
FC5890-2	6Q17755.D	1	05/12/23	MV	05/08/23	OP96784	S6Q268

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5890-1, FC5890-2, FC5890-3

CAS No.	Compound	FC5890-2 ug/l	DUP Q	ug/l	Q	RPD	Limits
113507-82-7PFEESA		0.0073 U <sup>b</sup>	ND			nc	30
356-02-5	3:3 Fluorotelomer carboxylate	0.018 U <sup>b</sup>	ND			nc	30
914637-49-35:3	Fluorotelomer carboxylate	0.091 U <sup>b</sup>	ND			nc	30
812-70-4	7:3 Fluorotelomer carboxylate	0.091 U <sup>b</sup>	ND			nc	30

CAS No.	ID Standard Recoveries	DUP	FC5890-2	FC5890-2	Limits
	13C4-PFBA	66%	63%	65%	20-150%
	13C5-PFPeA	89%	81%	92%	20-150%
	13C5-PFHxA	109%	107%	110%	20-150%
	13C4-PFHpA	109%	107%	108%	20-150%
	13C8-PFOA	105%	101%	105%	20-150%
	13C9-PFNA	121%	102%	101%	20-150%
	13C6-PFDA	103%	100%	97%	20-150%
	13C7-PFUnDA	95%	102%	97%	20-150%
	13C2-PFDoDA	89%	92%	89%	20-150%
	13C2-PFTeDA	72%	62%	66%	20-150%
	13C3-PFBS	113%	101%	110%	20-150%
	13C3-PFHxS	122%	93%	109%	20-150%
	13C8-PFOS	91%	101%	101%	20-150%
	13C8-FOSA	89%	84%	78%	20-150%
	d3-MeFOSA	76%	69%	76%	20-150%
	d5-EtFOSA	81%	72%	70%	20-150%
	d3-MeFOSAA	99%	118%	95%	20-150%
	d5-EtFOSAA	94%	126%	104%	20-150%
	d7-MeFOSE	74%	59%	68%	20-150%
	d9-EtFOSE	80%	65%	78%	20-150%
	13C2-4:2FTS	166%	168%	163%	20-180%
	13C2-6:2FTS	117%	128%	122%	20-180%
	13C2-8:2FTS	98%	114%	102%	20-180%
	13C3-HFPO-DA	83%	79%	87%	20-150%

(a) Confirmation run.

(b) Result is from Run #2.

\* = Outside of Control Limits.