

The results set forth herein are provided by SGS North America Inc.

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Automated Report

Technical Report for

AECOM, INC.

N6274223F0104 RH Fire Suppression System

60697810

SGS Job Number: FC5578

Sampling Date: 04/25/23



Report to:

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Total number of pages in report: 38



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

Norm Farmer
Technical Director

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Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001)
DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177),
AL, AK, AR, CT, IA, KY, MA, MI, MS, ND, NH, NV, OK, OR, IL, UT, VT, WA, WI, WV

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Test results relate only to samples analyzed.

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Sample Summary

AECOM, INC.

Job No: FC5578

N6274223F0104 RH Fire Suppression System
Project No: 60697810

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
FC5578-1	04/25/23	09:50 MM	04/26/23	AQ	Ground Water	AF-HDMW225303-WGN01LF-2304W4
FC5578-2	04/25/23	12:15 MM	04/26/23	AQ	Ground Water	AF-RHMW10-WGN01LF-2304W4

SAMPLE DELIVERY GROUP CASE NARRATIVE

2

Client: AECOM, INC.

Job No: FC5578

Site: N6274223F0104 RH Fire Suppression System

Report Date: 5/5/2023 5:01:39 PM

On 04/26/2023, 2 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 4.8 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC5578 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: OP96603

Sample(s) FC5514-3MS, FC5522-4DUP were used as the QC samples indicated.

Sample(s) FC5578-1 have surrogates outside control limits.

OP96603-BS for d9-EtFOSE: Outside control limits.

OP96603-BS for d7-MeFOSE: Outside control limits.

FC5578-1 for d7-MeFOSE: Outside control limits.

OP96603-LLBS for d9-EtFOSE: Outside control limits.

OP96603-LLBS for d7-MeFOSE: Outside control limits.

Matrix: AQ

Batch ID: OP96698

OP96698-BS: Insufficient sample for MS/MSD.

OP96698-LLBS for d3-MeFOSA: Outside control limits.

OP96698-LLBS for d7-MeFOSE: Outside control limits.

OP96698-LLBS for d9-EtFOSE: Outside control limits.

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

Narrative prepared by:

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

Summary of Hits

Job Number: FC5578
Account: AECOM, INC.
Project: N6274223F0104 RH Fire Suppression System
Collected: 04/25/23



Lab Sample ID	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
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FC5578-1 AF-HDMW225303-WGN01LF-2304W4

No hits reported in this sample.

FC5578-2 AF-RHMW10-WGN01LF-2304W4

No hits reported in this sample.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	AF-HDMW225303-WGN01LF-2304W4		
Lab Sample ID:	FC5578-1	Date Sampled:	04/25/23
Matrix:	AQ - Ground Water	Date Received:	04/26/23
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	6Q17089.D	1	04/28/23 22:00	MV	04/27/23 10:00	OP96603	S6Q258
Run #2	4Q43959.D	1	05/04/23 13:58	NG	05/03/23 14:00	OP96698	S4Q635

Run #	Initial Volume	Final Volume
Run #1	540 ml	5.0 ml
Run #2	540 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	3.7 U	15	3.7	1.8	ng/l	
2706-90-3	Perfluoropentanoic acid	1.9 U	7.4	1.9	0.87	ng/l	
307-24-4	Perfluorohexanoic acid	1.9 U	3.7	1.9	0.46	ng/l	
375-85-9	Perfluoroheptanoic acid	1.9 U	3.7	1.9	0.46	ng/l	
335-67-1	Perfluorooctanoic acid	0.93 U	3.7	0.93	0.46	ng/l	
375-95-1	Perfluorononanoic acid	1.9 U	3.7	1.9	0.56	ng/l	
335-76-2	Perfluorodecanoic acid	1.9 U	3.7	1.9	0.46	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.9 U	3.7	1.9	0.56	ng/l	
307-55-1	Perfluorododecanoic acid	1.9 U	3.7	1.9	0.56	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.9 U	3.7	1.9	0.78	ng/l	
376-06-7	Perfluorotetradecanoic acid	1.9 U	3.7	1.9	0.46	ng/l	

PERFLUOROALKYL SULFONIC ACIDS

375-73-5	Perfluorobutanesulfonic acid	1.9 U	3.7	1.9	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	3.7	1.9	0.65	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	1.9 U	3.7	1.9	0.46	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.9 U	3.7	1.9	0.50	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.9 U	3.7	1.9	0.53	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.9 U	3.7	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	3.7	1.9	0.62	ng/l	
31506-32-8	MeFOSA	3.7 U ^a	7.4	3.7	0.93	ng/l	
4151-50-2	EtFOSA	3.7 U ^a	7.4	3.7	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

4.1
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Report of Analysis

Client Sample ID:	AF-HDMW225303-WGN01LF-2304W4		
Lab Sample ID:	FC5578-1	Date Sampled:	04/25/23
Matrix:	AQ - Ground Water	Date Received:	04/26/23
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	19 U ^a	37	19	4.1	ng/l	
1691-99-2	EtFOSE	19 U ^a	37	19	6.9	ng/l	

PER and POLYFLUOROETHER CARBOXYLIC ACIDS

13252-13-6	HFPO-DA (GenX)	1.9 U	3.7	1.9	0.93	ng/l	
919005-14-4	ADONA	3.7 U	7.4	3.7	1.7	ng/l	
377-73-1	PFMPA	1.9 U	7.4	1.9	0.93	ng/l	
863090-89-5	PFMBA	3.7 U	7.4	3.7	1.1	ng/l	
151772-58-6	NFDHA	3.7 U	7.4	3.7	1.1	ng/l	

PER and POLYFLUOROETHER SULFONIC ACIDS

756426-58-1	9Cl-PF3ONS (F-53B Major)	3.7 U	7.4	3.7	1.3	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.7 U	7.4	3.7	1.6	ng/l	
113507-82-7	PFEESA	1.9 U	7.4	1.9	0.72	ng/l	

FLUOROTELOMER CARBOXYLIC ACIDS

356-02-5	3:3 Fluorotelomer carboxylate	9.3 U	19	9.3	4.2	ng/l	
914637-49-3	5:3 Fluorotelomer carboxylate	19 U	93	19	8.1	ng/l	
812-70-4	7:3 Fluorotelomer carboxylate	19 U	93	19	7.3	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
	13C4-PFBA	106%	101%	20-150%
	13C5-PFPeA	102%	102%	20-150%
	13C5-PFHxA	101%	100%	20-150%
	13C4-PFHpA	106%	101%	20-150%
	13C8-PFOA	98%	98%	20-150%
	13C9-PFNA	96%	95%	20-150%
	13C6-PFDA	95%	85%	20-150%
	13C7-PFUnDA	81%	88%	20-150%
	13C2-PFDoDA	75%	79%	20-150%
	13C2-PFTeDA	70%	68%	20-150%
	13C3-PFBS	108%	96%	20-150%
	13C3-PFHxS	108%	94%	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

4.1
4

Report of Analysis

Client Sample ID:	AF-HDMW225303-WGN01LF-2304W4		Date Sampled:	04/25/23
Lab Sample ID:	FC5578-1		Date Received:	04/26/23
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	97%	84%	20-150%
	13C8-FOSA	32%	39%	20-150%
	d3-MeFOSA	26%	39%	20-150%
	d5-EtFOSA	26%	41%	20-150%
	d3-MeFOSAA	91%	82%	20-150%
	d5-EtFOSAA	87%	89%	20-150%
	d7-MeFOSE	19% ^b	32%	20-150%
	d9-EtFOSE	23%	35%	20-150%
	13C2-4:2FTS	111%	103%	20-180%
	13C2-6:2FTS	110%	117%	20-180%
	13C2-8:2FTS	101%	96%	20-180%
	13C3-HFPO-DA	96%	97%	20-150%

(a) Result is from Run# 2

(b) Outside control limits.

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-RHMW10-WGN01LF-2304W4		
Lab Sample ID:	FC5578-2	Date Sampled:	04/25/23
Matrix:	AQ - Ground Water	Date Received:	04/26/23
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	6Q17090.D	1	04/28/23 22:15	MV	04/27/23 10:00	OP96603	S6Q258
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	14	3.5	1.7	ng/l	
2706-90-3	Perfluoropentanoic acid	1.8 U	7.0	1.8	0.82	ng/l	
307-24-4	Perfluorohexanoic acid	1.8 U	3.5	1.8	0.44	ng/l	
375-85-9	Perfluoroheptanoic acid	1.8 U	3.5	1.8	0.44	ng/l	
335-67-1	Perfluorooctanoic acid	0.88 U	3.5	0.88	0.44	ng/l	
375-95-1	Perfluorononanoic acid	1.8 U	3.5	1.8	0.54	ng/l	
335-76-2	Perfluorodecanoic acid	1.8 U	3.5	1.8	0.44	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.8 U	3.5	1.8	0.53	ng/l	
307-55-1	Perfluorododecanoic acid	1.8 U	3.5	1.8	0.53	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.8 U	3.5	1.8	0.74	ng/l	
376-06-7	Perfluorotetradecanoic acid	1.8 U	3.5	1.8	0.44	ng/l	

PERFLUOROALKYL SULFONIC ACIDS

375-73-5	Perfluorobutanesulfonic acid	1.8 U	3.5	1.8	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	3.5	1.8	0.61	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	1.8 U	3.5	1.8	0.44	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	1.8 U	3.5	1.8	0.47	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.8 U	3.5	1.8	0.50	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.8 U	3.5	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	3.5	1.8	0.59	ng/l	
31506-32-8	MeFOSA	3.5 U	7.0	3.5	0.88	ng/l	
4151-50-2	EtFOSA	3.5 U	7.0	3.5	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

4.2
4

Report of Analysis

Client Sample ID:	AF-RHMW10-WGN01LF-2304W4		
Lab Sample ID:	FC5578-2	Date Sampled:	04/25/23
Matrix:	AQ - Ground Water	Date Received:	04/26/23
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	3.5 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	18 U	35	18	3.8	ng/l	
1691-99-2	EtFOSE	18 U	35	18	6.5	ng/l	

PER and POLYFLUOROETHER CARBOXYLIC ACIDS

13252-13-6	HFPO-DA (GenX)	1.8 U	3.5	1.8	0.88	ng/l	
919005-14-4	ADONA	3.5 U	7.0	3.5	1.6	ng/l	
377-73-1	PFMPA	1.8 U	7.0	1.8	0.88	ng/l	
863090-89-5	PFMBA	3.5 U	7.0	3.5	1.0	ng/l	
151772-58-6	NFDHA	3.5 U	7.0	3.5	1.1	ng/l	

PER and POLYFLUOROETHER SULFONIC ACIDS

756426-58-1	9Cl-PF3ONS (F-53B Major)	3.5 U	7.0	3.5	1.2	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.5 U	7.0	3.5	1.5	ng/l	
113507-82-7	PFEESA	1.8 U	7.0	1.8	0.68	ng/l	

FLUOROTELOMER CARBOXYLIC ACIDS

356-02-5	3:3 Fluorotelomer carboxylate	8.8 U	18	8.8	4.0	ng/l	
914637-49-3	5:3 Fluorotelomer carboxylate	18 U	88	18	7.7	ng/l	
812-70-4	7:3 Fluorotelomer carboxylate	18 U	88	18	6.9	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
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	13C4-PFBA	110%		20-150%
	13C5-PFPeA	112%		20-150%
	13C5-PFHxA	112%		20-150%
	13C4-PFHpA	111%		20-150%
	13C8-PFOA	105%		20-150%
	13C9-PFNA	110%		20-150%
	13C6-PFDA	99%		20-150%
	13C7-PFUnDA	102%		20-150%
	13C2-PFDoDA	82%		20-150%
	13C2-PFTeDA	83%		20-150%
	13C3-PFBS	107%		20-150%
	13C3-PFHxS	106%		20-150%

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

Report of Analysis

Client Sample ID:	AF-RHMW10-WGN01LF-2304W4	
Lab Sample ID:	FC5578-2	Date Sampled: 04/25/23
Matrix:	AQ - Ground Water	Date Received: 04/26/23
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	119%		20-150%
	13C8-FOSA	44%		20-150%
	d3-MeFOSA	32%		20-150%
	d5-EtFOSA	31%		20-150%
	d3-MeFOSAA	109%		20-150%
	d5-EtFOSAA	93%		20-150%
	d7-MeFOSE	20%		20-150%
	d9-EtFOSE	23%		20-150%
	13C2-4:2FTS	104%		20-180%
	13C2-6:2FTS	110%		20-180%
	13C2-8:2FTS	100%		20-180%
	13C3-HFPO-DA	102%		20-150%

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

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

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

SGS Sample Receipt Summary

Job Number: FC5578

Client: AECOM

Project: N6274223F0104 RH Fire Suppression System

Date / Time Received: 4/26/2023 9:30:00 AM

Delivery Method: United Cargo/Airspace

Airbill #s: United Cargo AWB #: 016-49142623

Therm ID: IR 1;

Therm CF: -0.1;

of Coolers: 1

Cooler Temps (Raw Measured) °C: Cooler 1: (4.9);

Cooler Temps (Corrected) °C: Cooler 1: (4.8);

Cooler Information

Y or N

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

Trip Blank Information

Y or N N/A

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

Sample Information

Y or N N/A

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

Misc. Information

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

Number of 5035 Field Kits: _____

Number of Lab Filtered Metals: _____

Test Strip Lot #s: pH 0-3 230320

pH 10-12 25BDH07

Other: (Specify) pH 1.0 - 12.0 222221

Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: SHAYLAP

Date: 4/26/2023 9:30:00 AM

Reviewer: CD

Date: 5/1/2023

FC5578: Chain of Custody

Page 3 of 3

QC Evaluation: DOD QSM5.x Limits

Job Number: FC5578
Account: AECOM, INC.
Project: N6274223F0104 RH Fire Suppression System
Collected: 04/25/23

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

* Sample used for QC is not from job FC5578

5.2
5

MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

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

Instrument Blank

Job Number: FC5578
Account: AECOMCOD AECOM, INC.
Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q258-IBLK	6Q17059.D	1	04/28/23	MV	n/a	n/a	S6Q258

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5578-1, FC5578-2

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: FC5578
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q258-IBLK	6Q17059.D	1	04/28/23	MV	n/a	n/a	S6Q258

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5578-1, FC5578-2

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	99% 20-150%
	13C5-PFPeA	98% 20-150%
	13C5-PFHxA	95% 20-150%
	13C4-PFHpA	100% 20-150%
	13C8-PFOA	97% 20-150%
	13C9-PFNA	95% 20-150%
	13C6-PFDA	109% 20-150%
	13C7-PFUnDA	104% 20-150%
	13C2-PFDoDA	102% 20-150%
	13C2-PFTeDA	97% 20-150%
	13C3-PFBS	105% 20-150%
	13C3-PFHxS	101% 20-150%
	13C8-PFOS	115% 20-150%
	13C8-FOSA	112% 20-150%
	d3-MeFOSA	106% 20-150%
	d5-EtFOSA	106% 20-150%
	d3-MeFOSAA	112% 20-150%
	d5-EtFOSAA	111% 20-150%
	d7-MeFOSE	103% 20-150%
	d9-EtFOSE	109% 20-150%
	13C2-4:2FTS	102% 20-180%
	13C2-6:2FTS	109% 20-180%
	13C2-8:2FTS	108% 20-180%
	13C3-HFPO-DA	102% 20-150%

Instrument Blank

Job Number: FC5578
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S4Q635-IBLK	4Q43953.D	1	05/04/23	NG	n/a	n/a	S4Q635

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5578-1

CAS No.	Compound	Result	RL	MDL	Units	Q
31506-32-8	MeFOSA	ND	0.0080	0.0010	ug/l	
4151-50-2	EtFOSA	ND	0.0080	0.0010	ug/l	
24448-09-7	MeFOSE	ND	0.040	0.0044	ug/l	
1691-99-2	EtFOSE	ND	0.040	0.0074	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C4-PFBA	100% 20-150%
	13C5-PFPeA	106% 20-150%
	13C5-PFHxA	102% 20-150%
	13C4-PFHpA	102% 20-150%
	13C8-PFOA	101% 20-150%
	13C9-PFNA	96% 20-150%
	13C6-PFDA	101% 20-150%
	13C7-PFUnDA	100% 20-150%
	13C2-PFDoDA	97% 20-150%
	13C2-PFTeDA	93% 20-150%
	13C3-PFBS	99% 20-150%
	13C3-PFHxS	92% 20-150%
	13C8-PFOS	102% 20-150%
	13C8-FOSA	93% 20-150%
	d3-MeFOSA	94% 20-150%
	d5-EtFOSA	96% 20-150%
	d3-MeFOSAA	103% 20-150%
	d5-EtFOSAA	100% 20-150%
	d7-MeFOSE	82% 20-150%
	d9-EtFOSE	81% 20-150%
	13C2-4:2FTS	117% 20-180%
	13C2-6:2FTS	119% 20-180%
	13C2-8:2FTS	127% 20-180%
	13C3-HFPO-DA	101% 20-150%

Continuing Calibration Blank

Job Number: FC5578
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q258-ICCB	6Q17083.D	1	04/28/23	MV	n/a	n/a	S6Q258

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5578-1, FC5578-2

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	

Continuing Calibration Blank

Job Number: FC5578
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q258-ICCB	6Q17083.D	1	04/28/23	MV	n/a	n/a	S6Q258

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5578-1, FC5578-2

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	99% 20-150%
	13C5-PFPeA	97% 20-150%
	13C5-PFHxA	100% 20-150%
	13C4-PFHpA	98% 20-150%
	13C8-PFOA	96% 20-150%
	13C9-PFNA	103% 20-150%
	13C6-PFDA	102% 20-150%
	13C7-PFUnDA	105% 20-150%
	13C2-PFDoDA	102% 20-150%
	13C2-PFTeDA	101% 20-150%
	13C3-PFBS	102% 20-150%
	13C3-PFHxS	101% 20-150%
	13C8-PFOS	104% 20-150%
	13C8-FOSA	104% 20-150%
	d3-MeFOSA	97% 20-150%
	d5-EtFOSA	100% 20-150%
	d3-MeFOSAA	105% 20-150%
	d5-EtFOSAA	107% 20-150%
	d7-MeFOSE	106% 20-150%
	d9-EtFOSE	99% 20-150%
	13C2-4:2FTS	99% 20-180%
	13C2-6:2FTS	104% 20-180%
	13C2-8:2FTS	97% 20-180%
	13C3-HFPO-DA	89% 20-150%

Method Blank Summary

Job Number: FC5578
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96603-MB	6Q17074.D	1	04/28/23	MV	04/27/23	OP96603	S6Q258

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5578-1, FC5578-2

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	

Method Blank Summary

Job Number: FC5578
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96603-MB	6Q17074.D	1	04/28/23	MV	04/27/23	OP96603	S6Q258

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5578-1, FC5578-2

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	108% 20-150%
	13C5-PFPeA	110% 20-150%
	13C5-PFHxA	109% 20-150%
	13C4-PFHpA	108% 20-150%
	13C8-PFOA	112% 20-150%
	13C9-PFNA	101% 20-150%
	13C6-PFDA	104% 20-150%
	13C7-PFUnDA	104% 20-150%
	13C2-PFDoDA	94% 20-150%
	13C2-PFTeDA	77% 20-150%
	13C3-PFBS	108% 20-150%
	13C3-PFHxS	112% 20-150%
	13C8-PFOS	103% 20-150%
	13C8-FOSA	41% 20-150%
	d3-MeFOSA	28% 20-150%
	d5-EtFOSA	26% 20-150%
	d3-MeFOSAA	95% 20-150%
	d5-EtFOSAA	90% 20-150%
	d7-MeFOSE	20% 20-150%
	d9-EtFOSE	23% 20-150%
	13C2-4:2FTS	118% 20-180%
	13C2-6:2FTS	115% 20-180%
	13C2-8:2FTS	112% 20-180%
	13C3-HFPO-DA	104% 20-150%

6.1.4
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Method Blank Summary

Job Number: FC5578
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96698-MB	4Q43958.D	1	05/04/23	NG	05/03/23	OP96698	S4Q635

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5578-1

CAS No.	Compound	Result	RL	MDL	Units	Q
31506-32-8	MeFOSA	ND	0.0080	0.0010	ug/l	
4151-50-2	EtFOSA	ND	0.0080	0.0010	ug/l	
24448-09-7	MeFOSE	ND	0.040	0.0044	ug/l	
1691-99-2	EtFOSE	ND	0.040	0.0074	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C4-PFBA	101% 20-150%
	13C5-PFPeA	103% 20-150%
	13C5-PFHxA	102% 20-150%
	13C4-PFHpA	105% 20-150%
	13C8-PFOA	100% 20-150%
	13C9-PFNA	109% 20-150%
	13C6-PFDA	99% 20-150%
	13C7-PFUnDA	96% 20-150%
	13C2-PFDoDA	85% 20-150%
	13C2-PFTeDA	73% 20-150%
	13C3-PFBS	97% 20-150%
	13C3-PFHxS	93% 20-150%
	13C8-PFOS	102% 20-150%
	13C8-FOSA	49% 20-150%
	d3-MeFOSA	41% 20-150%
	d5-EtFOSA	40% 20-150%
	d3-MeFOSAA	102% 20-150%
	d5-EtFOSAA	97% 20-150%
	d7-MeFOSE	32% 20-150%
	d9-EtFOSE	36% 20-150%
	13C2-4:2FTS	115% 20-180%
	13C2-6:2FTS	121% 20-180%
	13C2-8:2FTS	123% 20-180%
	13C3-HFPO-DA	99% 20-150%

Continuing Calibration Blank

Job Number: FC5578
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q258-ICCB	6Q17071.D	1	04/28/23	MV	n/a	n/a	S6Q258

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

OP96603-BS, OP96603-LLBS, OP96603-DUP, OP96603-MB, OP96603-MS

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: FC5578
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q258-ICCB	6Q17071.D	1	04/28/23	MV	n/a	n/a	S6Q258

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

OP96603-BS, OP96603-LLBS, OP96603-DUP, OP96603-MB, OP96603-MS

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	101% 20-150%
	13C5-PFHxA	99% 20-150%
	13C4-PFHpA	98% 20-150%
	13C8-PFOA	91% 20-150%
	13C9-PFNA	108% 20-150%
	13C6-PFDA	96% 20-150%
	13C7-PFUnDA	98% 20-150%
	13C2-PFDoDA	93% 20-150%
	13C2-PFTeDA	92% 20-150%
	13C3-PFBS	106% 20-150%
	13C3-PFHxS	106% 20-150%
	13C8-PFOS	102% 20-150%
	13C8-FOSA	100% 20-150%
	d3-MeFOSAA	103% 20-150%
	d5-EtFOSAA	108% 20-150%
	13C2-4:2FTS	120% 20-180%
	13C2-6:2FTS	109% 20-180%
	13C2-8:2FTS	106% 20-180%

6.1.6

6

Blank Spike Summary

Job Number: FC5578
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96603-LLBS	6Q17073.D	1	04/28/23	MV	04/27/23	OP96603	S6Q258

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5578-1, FC5578-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.03	0.0303	101	40-150
2706-90-3	Perfluoropentanoic acid	0.015	0.0149	99	40-150
307-24-4	Perfluorohexanoic acid	0.0075	0.0072	96	40-150
375-85-9	Perfluoroheptanoic acid	0.0075	0.0077	103	40-150
335-67-1	Perfluorooctanoic acid	0.0075	0.0089	119	40-150
375-95-1	Perfluorononanoic acid	0.0075	0.0076	101	40-150
335-76-2	Perfluorodecanoic acid	0.0075	0.0077	103	40-150
2058-94-8	Perfluoroundecanoic acid	0.0075	0.0074	99	40-150
307-55-1	Perfluorododecanoic acid	0.0075	0.0073	97	40-150
72629-94-8	Perfluorotridecanoic acid	0.0075	0.0074	99	40-150
376-06-7	Perfluorotetradecanoic acid	0.0075	0.0082	109	40-150
375-73-5	Perfluorobutanesulfonic acid	0.00665	0.0068	102	40-150
2706-91-4	Perfluoropentanesulfonic acid	0.00706	0.0075	106	40-150
355-46-4	Perfluorohexanesulfonic acid	0.00686	0.0074	108	40-150
375-92-8	Perfluoroheptanesulfonic acid	0.00715	0.0072	101	40-150
1763-23-1	Perfluorooctanesulfonic acid	0.00696	0.0063	91	40-150
68259-12-1	Perfluorononanesulfonic acid	0.00722	0.0072	100	40-150
335-77-3	Perfluorodecanesulfonic acid	0.00724	0.0073	101	40-150
79780-39-5	Perfluorododecanesulfonic aci	0.00728	0.0059	81	40-150
757124-72-44:2	Fluorotelomer sulfonate	0.0281	0.0286	102	40-150
27619-97-2	6:2 Fluorotelomer sulfonate	0.0285	0.0277	97	40-150
39108-34-4	8:2 Fluorotelomer sulfonate	0.0288	0.0305	106	40-150
754-91-6	PFOSA	0.0075	0.0083	111	40-150
31506-32-8	MeFOSA	0.015	0.0147	98	40-150
4151-50-2	EtFOSA	0.015	0.0159	106	40-150
2355-31-9	MeFOSAA	0.0075	0.0077	103	40-150
2991-50-6	EtFOSAA	0.0075	0.0068	91	40-150
24448-09-7	MeFOSE	0.0375	0.0398	106	40-150
1691-99-2	EtFOSE	0.0375	0.0342	91	40-150
13252-13-6	HFPO-DA (GenX)	0.015	0.0146	97	40-150
919005-14-4	ADONA	0.0142	0.0147	104	40-150
377-73-1	PFMPA	0.015	0.0146	97	40-150
863090-89-5	PFMBA	0.015	0.0150	100	40-150
151772-58-6	NFDHA	0.015	0.0145	97	40-150
756426-58-19	Cl-PF3ONS (F-53B Major)	0.014	0.0148	106	40-150
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.0142	0.0139	98	40-150

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FC5578
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96603-LLBS	6Q17073.D	1	04/28/23	MV	04/27/23	OP96603	S6Q258

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5578-1, FC5578-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
113507-82-7	PFEESA	0.0134	0.0132	99	40-150
356-02-5	3:3 Fluorotelomer carboxylate	0.0375	0.0313	83	40-150
914637-49-35:3	Fluorotelomer carboxylate	0.188	0.160	85	40-150
812-70-4	7:3 Fluorotelomer carboxylate	0.188	0.155	83	40-150

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	109%	20-150%
	13C5-PFPeA	105%	20-150%
	13C5-PFHxA	103%	20-150%
	13C4-PFHpA	104%	20-150%
	13C8-PFOA	96%	20-150%
	13C9-PFNA	103%	20-150%
	13C6-PFDA	119%	20-150%
	13C7-PFUnDA	114%	20-150%
	13C2-PFDoDA	105%	20-150%
	13C2-PFTeDA	87%	20-150%
	13C3-PFBS	109%	20-150%
	13C3-PFHxS	105%	20-150%
	13C8-PFOS	106%	20-150%
	13C8-FOSA	42%	20-150%
	d3-MeFOSA	30%	20-150%
	d5-EtFOSA	24%	20-150%
	d3-MeFOSAA	109%	20-150%
	d5-EtFOSAA	108%	20-150%
	d7-MeFOSE	16%* a	20-150%
	d9-EtFOSE	19%* a	20-150%
	13C2-4:2FTS	112%	20-180%
	13C2-6:2FTS	112%	20-180%
	13C2-8:2FTS	108%	20-180%
	13C3-HFPO-DA	99%	20-150%

(a) Outside control limits.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FC5578
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96698-LLBS	4Q43957.D	1	05/04/23	NG	05/03/23	OP96698	S4Q635

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5578-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
31506-32-8	MeFOSA	0.015	0.0143	95	40-150
4151-50-2	EtFOSA	0.015	0.0136	91	40-150
24448-09-7	MeFOSE	0.0375	0.0335	89	40-150
1691-99-2	EtFOSE	0.0375	0.0353	94	40-150

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	79%	20-150%
	13C5-PFPeA	78%	20-150%
	13C5-PFHxA	74%	20-150%
	13C4-PFHpA	76%	20-150%
	13C8-PFOA	77%	20-150%
	13C9-PFNA	73%	20-150%
	13C6-PFDA	69%	20-150%
	13C7-PFUnDA	70%	20-150%
	13C2-PFDoDA	64%	20-150%
	13C2-PFTeDA	55%	20-150%
	13C3-PFBS	85%	20-150%
	13C3-PFHxS	83%	20-150%
	13C8-PFOS	82%	20-150%
	13C8-FOSA	26%	20-150%
	d3-MeFOSA	19%* a	20-150%
	d5-EtFOSA	22%	20-150%
	d3-MeFOSAA	70%	20-150%
	d5-EtFOSAA	70%	20-150%
	d7-MeFOSE	17%* a	20-150%
	d9-EtFOSE	19%* a	20-150%
	13C2-4:2FTS	84%	20-180%
	13C2-6:2FTS	79%	20-180%
	13C2-8:2FTS	95%	20-180%
	13C3-HFPO-DA	71%	20-150%

(a) Outside control limits.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FC5578
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96603-BS	6Q17072.D	1	04/28/23	MV	04/27/23	OP96603	S6Q258

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5578-1, FC5578-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.1	0.100	100	40-150
2706-90-3	Perfluoropentanoic acid	0.05	0.0505	101	40-150
307-24-4	Perfluorohexanoic acid	0.025	0.0236	94	40-150
375-85-9	Perfluoroheptanoic acid	0.025	0.0255	102	40-150
335-67-1	Perfluorooctanoic acid	0.025	0.0247	99	40-150
375-95-1	Perfluorononanoic acid	0.025	0.0248	99	40-150
335-76-2	Perfluorodecanoic acid	0.025	0.0257	103	40-150
2058-94-8	Perfluoroundecanoic acid	0.025	0.0234	94	40-150
307-55-1	Perfluorododecanoic acid	0.025	0.0263	105	40-150
72629-94-8	Perfluorotridecanoic acid	0.025	0.0247	99	40-150
376-06-7	Perfluorotetradecanoic acid	0.025	0.0237	95	40-150
375-73-5	Perfluorobutanesulfonic acid	0.0222	0.0216	97	40-150
2706-91-4	Perfluoropentanesulfonic acid	0.0235	0.0233	99	40-150
355-46-4	Perfluorohexanesulfonic acid	0.0229	0.0216	95	40-150
375-92-8	Perfluoroheptanesulfonic acid	0.0238	0.0253	106	40-150
1763-23-1	Perfluorooctanesulfonic acid	0.0232	0.0259	112	40-150
68259-12-1	Perfluorononanesulfonic acid	0.0241	0.0256	106	40-150
335-77-3	Perfluorodecanesulfonic acid	0.0241	0.0256	106	40-150
79780-39-5	Perfluorododecanesulfonic aci	0.0243	0.0221	91	40-150
757124-72-44:2	Fluorotelomer sulfonate	0.0938	0.106	113	40-150
27619-97-2	6:2 Fluorotelomer sulfonate	0.095	0.0859	90	40-150
39108-34-4	8:2 Fluorotelomer sulfonate	0.096	0.100	104	40-150
754-91-6	PFOSA	0.025	0.0288	115	40-150
31506-32-8	MeFOSA	0.05	0.0518	104	40-150
4151-50-2	EtFOSA	0.05	0.0502	100	40-150
2355-31-9	MeFOSAA	0.025	0.0256	102	40-150
2991-50-6	EtFOSAA	0.025	0.0233	93	40-150
24448-09-7	MeFOSE	0.125	0.130	104	40-150
1691-99-2	EtFOSE	0.125	0.121	97	40-150
13252-13-6	HFPO-DA (GenX)	0.05	0.0508	102	40-150
919005-14-4	ADONA	0.0473	0.0477	101	40-150
377-73-1	PFMPA	0.05	0.0490	98	40-150
863090-89-5	PFMBA	0.05	0.0498	100	40-150
151772-58-6	NFDHA	0.05	0.0506	101	40-150
756426-58-19	Cl-PF3ONS (F-53B Major)	0.0468	0.0505	108	40-150
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.0473	0.0479	101	40-150

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FC5578
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96603-BS	6Q17072.D	1	04/28/23	MV	04/27/23	OP96603	S6Q258

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5578-1, FC5578-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
113507-82-7	PFEESA	0.0445	0.0437	98	40-150
356-02-5	3:3 Fluorotelomer carboxylate	0.125	0.0985	79	40-150
914637-49-35:3	Fluorotelomer carboxylate	0.625	0.524	84	40-150
812-70-4	7:3 Fluorotelomer carboxylate	0.625	0.473	76	40-150

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	107%	20-150%
	13C5-PFPeA	104%	20-150%
	13C5-PFHxA	104%	20-150%
	13C4-PFHpA	102%	20-150%
	13C8-PFOA	107%	20-150%
	13C9-PFNA	109%	20-150%
	13C6-PFDA	112%	20-150%
	13C7-PFUnDA	103%	20-150%
	13C2-PFDoDA	98%	20-150%
	13C2-PFTeDA	87%	20-150%
	13C3-PFBS	111%	20-150%
	13C3-PFHxS	109%	20-150%
	13C8-PFOS	108%	20-150%
	13C8-FOSA	49%	20-150%
	d3-MeFOSA	44%	20-150%
	d5-EtFOSA	42%	20-150%
	d3-MeFOSAA	114%	20-150%
	d5-EtFOSAA	114%	20-150%
	d7-MeFOSE	15%* a	20-150%
	d9-EtFOSE	16%* a	20-150%
	13C2-4:2FTS	101%	20-180%
	13C2-6:2FTS	115%	20-180%
	13C2-8:2FTS	101%	20-180%
	13C3-HFPO-DA	98%	20-150%

(a) Outside control limits.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FC5578
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96698-BS ^a	4Q43956.D	1	05/04/23	NG	05/03/23	OP96698	S4Q635

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5578-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
31506-32-8	MeFOSA	0.05	0.0516	103	40-150
4151-50-2	EtFOSA	0.05	0.0482	96	40-150
24448-09-7	MeFOSE	0.125	0.120	96	40-150
1691-99-2	EtFOSE	0.125	0.124	99	40-150

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	106%	20-150%
	13C5-PFPeA	109%	20-150%
	13C5-PFHxA	102%	20-150%
	13C4-PFHpA	105%	20-150%
	13C8-PFOA	104%	20-150%
	13C9-PFNA	109%	20-150%
	13C6-PFDA	100%	20-150%
	13C7-PFUnDA	99%	20-150%
	13C2-PFDoDA	92%	20-150%
	13C2-PFTeDA	79%	20-150%
	13C3-PFBS	104%	20-150%
	13C3-PFHxS	101%	20-150%
	13C8-PFOS	105%	20-150%
	13C8-FOSA	49%	20-150%
	d3-MeFOSA	36%	20-150%
	d5-EtFOSA	38%	20-150%
	d3-MeFOSAA	110%	20-150%
	d5-EtFOSAA	109%	20-150%
	d7-MeFOSE	32%	20-150%
	d9-EtFOSE	34%	20-150%
	13C2-4:2FTS	111%	20-180%
	13C2-6:2FTS	115%	20-180%
	13C2-8:2FTS	123%	20-180%
	13C3-HFPO-DA	104%	20-150%

(a) Insufficient sample for MS/MSD.

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: FC5578
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96603-MS	6Q17078.D	1	04/28/23	MV	04/27/23	OP96603	S6Q258
FC5514-3	6Q17077.D	1	04/28/23	MV	04/27/23	OP96603	S6Q258

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5578-1, FC5578-2

CAS No.	Compound	FC5514-3 ug/l	Spike Q	MS ug/l	MS %	Limits
375-22-4	Perfluorobutanoic acid	0.015 U	0.0926	0.0955	103	40-150
2706-90-3	Perfluoropentanoic acid	0.0073 U	0.0463	0.0467	101	40-150
307-24-4	Perfluorohexanoic acid	0.0036 U	0.0231	0.0218	94	40-150
375-85-9	Perfluoroheptanoic acid	0.0036 U	0.0231	0.0251	108	40-150
335-67-1	Perfluorooctanoic acid	0.0036 U	0.0231	0.0249	108	40-150
375-95-1	Perfluorononanoic acid	0.0036 U	0.0231	0.0241	104	40-150
335-76-2	Perfluorodecanoic acid	0.0036 U	0.0231	0.0271	117	40-150
2058-94-8	Perfluoroundecanoic acid	0.0036 U	0.0231	0.0249	108	40-150
307-55-1	Perfluorododecanoic acid	0.0036 U	0.0231	0.0228	98	40-150
72629-94-8	Perfluorotridecanoic acid	0.0036 U	0.0231	0.0236	102	40-150
376-06-7	Perfluorotetradecanoic acid	0.0036 U	0.0231	0.0266	115	40-150
375-73-5	Perfluorobutanesulfonic acid	0.0036 U	0.0205	0.0214	104	40-150
2706-91-4	Perfluoropentanesulfonic acid	0.0045 U	0.0218	0.0246	113	40-150
355-46-4	Perfluorohexanesulfonic acid	0.0036 U	0.0212	0.0229	108	40-150
375-92-8	Perfluoroheptanesulfonic acid	0.0036 U	0.0221	0.0265	120	40-150
1763-23-1	Perfluorooctanesulfonic acid	0.0036 U	0.0215	0.0213	99	40-150
68259-12-1	Perfluorononanesulfonic acid	0.0036 U	0.0223	0.0211	95	40-150
335-77-3	Perfluorodecanesulfonic acid	0.0036 U	0.0223	0.0212	95	40-150
79780-39-5	Perfluorododecanesulfonic aci	0.0045 U	0.0225	0.0216	96	40-150
757124-72-44:2	Fluorotelomer sulfonate	0.018 U	0.0868	0.0929	107	40-150
27619-97-2	6:2 Fluorotelomer sulfonate	0.018 U	0.088	0.105	119	40-150
39108-34-4	8:2 Fluorotelomer sulfonate	0.018 U	0.0889	0.0937	105	40-150
754-91-6	PFOSA	0.0036 U	0.0231	0.0247	107	40-150
31506-32-8	MeFOSA	0.0073 U	0.0463	0.0512	111	40-150
4151-50-2	EtFOSA	0.0073 U	0.0463	0.0428	92	40-150
2355-31-9	MeFOSAA	0.0045 U	0.0231	0.0252	109	40-150
2991-50-6	EtFOSAA	0.0045 U	0.0231	0.0235	102	40-150
24448-09-7	MeFOSE	0.036 U	0.116	0.119	103	40-150
1691-99-2	EtFOSE	0.036 U	0.116	0.121	105	40-150
13252-13-6	HFPO-DA (GenX)	0.0036 U	0.0463	0.0457	99	40-150
919005-14-4	ADONA	0.0073 U	0.0438	0.0457	104	40-150
377-73-1	PFMPA	0.0073 U	0.0463	0.0459	99	40-150
863090-89-5	PFMBA	0.0073 U	0.0463	0.0474	102	40-150
151772-58-6	NFDHA	0.0073 U	0.0463	0.0457	99	40-150
756426-58-19	Cl-PF3ONS (F-53B Major)	0.0073 U	0.0433	0.0391	90	40-150
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.0073 U	0.0438	0.0337	77	40-150

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: FC5578
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96603-MS	6Q17078.D	1	04/28/23	MV	04/27/23	OP96603	S6Q258
FC5514-3	6Q17077.D	1	04/28/23	MV	04/27/23	OP96603	S6Q258

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5578-1, FC5578-2

CAS No.	Compound	FC5514-3 ug/l	Spike Q	MS ug/l	MS %	Limits
113507-82-7	PFEESA	0.0073 U	0.0412	0.0416	101	40-150
356-02-5	3:3 Fluorotelomer carboxylate	0.018 U	0.116	0.0874	76	40-150
914637-49-35:3	Fluorotelomer carboxylate	0.091 U	0.579	0.450	78	40-150
812-70-4	7:3 Fluorotelomer carboxylate	0.091 U	0.579	0.403	70	40-150

CAS No.	ID Standard Recoveries	MS	FC5514-3	Limits
	13C4-PFBA	96%	102%	20-150%
	13C5-PFPeA	107%	105%	20-150%
	13C5-PFHxA	108%	104%	20-150%
	13C4-PFHpA	104%	106%	20-150%
	13C8-PFOA	99%	112%	20-150%
	13C9-PFNA	97%	91%	20-150%
	13C6-PFDA	89%	95%	20-150%
	13C7-PFUnDA	81%	84%	20-150%
	13C2-PFDoDA	77%	74%	20-150%
	13C2-PFTeDA	74%	75%	20-150%
	13C3-PFBS	111%	98%	20-150%
	13C3-PFHxS	100%	100%	20-150%
	13C8-PFOS	88%	98%	20-150%
	13C8-FOSA	39%	51%	20-150%
	d3-MeFOSA	29%	35%	20-150%
	d5-EtFOSA	33%	31%	20-150%
	d3-MeFOSAA	82%	88%	20-150%
	d5-EtFOSAA	77%	80%	20-150%
	d7-MeFOSE	22%	27%	20-150%
	d9-EtFOSE	24%	29%	20-150%
	13C2-4:2FTS	105%	101%	20-180%
	13C2-6:2FTS	99%	103%	20-180%
	13C2-8:2FTS	94%	95%	20-180%
	13C3-HFPO-DA	100%	103%	20-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: FC5578
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96603-DUP	6Q17080.D	1	04/28/23	MV	04/27/23	OP96603	S6Q258
FC5522-4	6Q17087.D	1	04/28/23	MV	04/27/23	OP96603	S6Q258

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5578-1, FC5578-2

CAS No.	Compound	FC5522-4 ug/l	DUP Q ug/l	Q	RPD	Limits
375-22-4	Perfluorobutanoic acid	0.015 U	ND		nc	30
2706-90-3	Perfluoropentanoic acid	0.0074 U	ND		nc	30
307-24-4	Perfluorohexanoic acid	0.0037 U	ND		nc	30
375-85-9	Perfluoroheptanoic acid	0.0037 U	ND		nc	30
335-67-1	Perfluorooctanoic acid	0.0037 U	ND		nc	30
375-95-1	Perfluorononanoic acid	0.0037 U	ND		nc	30
335-76-2	Perfluorodecanoic acid	0.0037 U	ND		nc	30
2058-94-8	Perfluoroundecanoic acid	0.0037 U	ND		nc	30
307-55-1	Perfluorododecanoic acid	0.0037 U	ND		nc	30
72629-94-8	Perfluorotridecanoic acid	0.0037 U	ND		nc	30
376-06-7	Perfluorotetradecanoic acid	0.0037 U	ND		nc	30
375-73-5	Perfluorobutanesulfonic acid	0.0037 U	ND		nc	30
2706-91-4	Perfluoropentanesulfonic acid	0.0046 U	ND		nc	30
355-46-4	Perfluorohexanesulfonic acid	0.0037 U	ND		nc	30
375-92-8	Perfluoroheptanesulfonic acid	0.0037 U	ND		nc	30
1763-23-1	Perfluorooctanesulfonic acid	0.0037 U	ND		nc	30
68259-12-1	Perfluorononanesulfonic acid	0.0037 U	ND		nc	30
335-77-3	Perfluorodecanesulfonic acid	0.0037 U	ND		nc	30
79780-39-5	Perfluorododecanesulfonic aci	0.0046 U	ND		nc	30
757124-72-44:2	Fluorotelomer sulfonate	0.019 U	ND		nc	30
27619-97-2	6:2 Fluorotelomer sulfonate	0.019 U	ND		nc	30
39108-34-4	8:2 Fluorotelomer sulfonate	0.019 U	ND		nc	30
754-91-6	PFOSA	0.0037 U	ND		nc	30
31506-32-8	MeFOSA	0.0074 U	ND		nc	30
4151-50-2	EtFOSA	0.0074 U	ND		nc	30
2355-31-9	MeFOSAA	0.0046 U	ND		nc	30
2991-50-6	EtFOSAA	0.0046 U	ND		nc	30
24448-09-7	MeFOSE	0.037 U	ND		nc	30
1691-99-2	EtFOSE	0.037 U	ND		nc	30
13252-13-6	HFPO-DA (GenX)	0.0037 U	ND		nc	30
919005-14-4	ADONA	0.0074 U	ND		nc	30
377-73-1	PFMPA	0.0074 U	ND		nc	30
863090-89-5	PFMBA	0.0074 U	ND		nc	30
151772-58-6	NFDHA	0.0074 U	ND		nc	30
756426-58-19	Cl-PF3ONS (F-53B Major)	0.0074 U	ND		nc	30
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.0074 U	ND		nc	30

* = Outside of Control Limits.

Duplicate Summary

Job Number: FC5578
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP96603-DUP	6Q17080.D	1	04/28/23	MV	04/27/23	OP96603	S6Q258
FC5522-4	6Q17087.D	1	04/28/23	MV	04/27/23	OP96603	S6Q258

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC5578-1, FC5578-2

CAS No.	Compound	FC5522-4 ug/l	DUP Q	ug/l	Q	RPD	Limits
113507-82-7PFEESA		0.0074 U	ND			nc	30
356-02-5	3:3 Fluorotelomer carboxylate	0.019 U	ND			nc	30
914637-49-35:3	Fluorotelomer carboxylate	0.093 U	ND			nc	30
812-70-4	7:3 Fluorotelomer carboxylate	0.093 U	ND			nc	30

CAS No.	ID Standard Recoveries	DUP	FC5522-4	Limits
	13C4-PFBA	98%	100%	20-150%
	13C5-PFPeA	106%	108%	20-150%
	13C5-PFHxA	107%	108%	20-150%
	13C4-PFHpA	102%	107%	20-150%
	13C8-PFOA	107%	105%	20-150%
	13C9-PFNA	106%	101%	20-150%
	13C6-PFDA	96%	94%	20-150%
	13C7-PFUnDA	80%	88%	20-150%
	13C2-PFDoDA	76%	84%	20-150%
	13C2-PFTeDA	68%	77%	20-150%
	13C3-PFBS	112%	102%	20-150%
	13C3-PFHxS	103%	102%	20-150%
	13C8-PFOS	88%	98%	20-150%
	13C8-FOSA	36%	44%	20-150%
	d3-MeFOSA	27%	31%	20-150%
	d5-EtFOSA	27%	33%	20-150%
	d3-MeFOSAA	81%	82%	20-150%
	d5-EtFOSAA	85%	86%	20-150%
	d7-MeFOSE	20%	26%	20-150%
	d9-EtFOSE	24%	27%	20-150%
	13C2-4:2FTS	105%	104%	20-180%
	13C2-6:2FTS	107%	107%	20-180%
	13C2-8:2FTS	99%	98%	20-180%
	13C3-HFPO-DA	98%	100%	20-150%

* = Outside of Control Limits.