

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: FC9720

Sampling Date: 09/18/23



Report to:

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ATTN: Katie Abbott

Total number of pages in report: 36



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 unless noted in the narrative, comments or footnotes.

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),

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: FC9720

N6274223F0104 RH Fire Suppression System
Project No: 60697810

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
FC9720-1	09/18/23	13:35	AYCP 09/20/23	AQ	Ground Water	AF-RHP05-WGN01LF-2309
FC9720-2	09/18/23	14:55	JVCW 09/20/23	AQ	Ground Water	AF-NMW32-WGN01LF-2309

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: AECOM, INC.

Job No: FC9720

Site: N6274223F0104 RH Fire Suppression System

Report Date: 9/26/2023 4:25:11 PM

On 09/20/2023, 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 2 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC9720 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: OP99128

Sample(s) FC9720-1MS, FC9720-2DUP were used as the QC samples indicated.

RPD(s) for Duplicate for Perfluorononanoic acid are outside control limits for sample OP99128-DUP. Probable cause is due to sample non-homogeneity.

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: FC9720
Account: AECOM, INC.
Project: N6274223F0104 RH Fire Suppression System
Collected: 09/18/23



Lab Sample ID	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
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FC9720-1 AF-RHP05-WGN01LF-2309

Perfluorohexanoic acid	1.2 J	3.8	1.9	ng/l	EPA DRAFT 1633
Perfluoroheptanoic acid	1.2 J	3.8	1.9	ng/l	EPA DRAFT 1633
Perfluorooctanoic acid	2.3 J	3.8	0.94	ng/l	EPA DRAFT 1633
Perfluorobutanesulfonic acid	1.1 J	3.8	1.9	ng/l	EPA DRAFT 1633
Perfluorohexanesulfonic acid	5.2	3.8	1.9	ng/l	EPA DRAFT 1633
Perfluorooctanesulfonic acid	3.6 J	3.8	1.9	ng/l	EPA DRAFT 1633

FC9720-2 AF-NMW32-WGN01LF-2309

Perfluorobutanoic acid	4.2 J	15	3.8	ng/l	EPA DRAFT 1633
Perfluoropentanoic acid	5.2 J	7.7	1.9	ng/l	EPA DRAFT 1633
Perfluorohexanoic acid	4.5	3.8	1.9	ng/l	EPA DRAFT 1633
Perfluoroheptanoic acid	3.3 J	3.8	1.9	ng/l	EPA DRAFT 1633
Perfluorooctanoic acid	5.9	3.8	0.96	ng/l	EPA DRAFT 1633
Perfluorobutanesulfonic acid	3.9	3.8	1.9	ng/l	EPA DRAFT 1633
Perfluoropentanesulfonic acid	1.7 J	4.8	3.8	ng/l	EPA DRAFT 1633
Perfluorohexanesulfonic acid	9.7	3.8	1.9	ng/l	EPA DRAFT 1633
Perfluorooctanesulfonic acid	14.7	3.8	1.9	ng/l	EPA DRAFT 1633

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	AF-RHP05-WGN01LF-2309		
Lab Sample ID:	FC9720-1	Date Sampled:	09/18/23
Matrix:	AQ - Ground Water	Date Received:	09/20/23
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	6Q24975.D	1	09/25/23 04:21	MV	09/21/23 09:40	OP99128	S6Q356
Run #2							

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

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

375-22-4	Perfluorobutanoic acid	3.8 U	15	3.8	1.8	ng/l	
2706-90-3	Perfluoropentanoic acid	1.9 U	7.5	1.9	0.89	ng/l	
307-24-4	Perfluorohexanoic acid	1.2	3.8	1.9	0.47	ng/l	J
375-85-9	Perfluoroheptanoic acid	1.2	3.8	1.9	0.47	ng/l	J
335-67-1	Perfluorooctanoic acid	2.3	3.8	0.94	0.47	ng/l	J
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	1.1	3.8	1.9	0.47	ng/l	J
2706-91-4	Perfluoropentanesulfonic acid	3.8 U	4.7	3.8	1.1	ng/l	
355-46-4	Perfluorohexanesulfonic acid	5.2	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	3.6	3.8	1.9	0.51	ng/l	J
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	7.5 U	19	7.5	3.3	ng/l	
39108-34-4	8:2 Fluorotelomer sulfonate	7.5 U	19	7.5	3.9	ng/l	

PERFLUOROOCCTANE SULFONAMIDES

754-91-6	PFOSA	1.9 U	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

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Report of Analysis

Client Sample ID:	AF-RHP05-WGN01LF-2309		
Lab Sample ID:	FC9720-1	Date Sampled:	09/18/23
Matrix:	AQ - Ground Water	Date Received:	09/20/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	Percent Solids:	n/a
Project:	N6274223F0104 RH Fire Suppression System		

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

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

PERFLUOROOCCTANE SULFONAMIDO ETHANOLS

24448-09-7	MeFOSE	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
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	13C4-PFBA	111%		20-150%
	13C5-PFPeA	123%		20-150%
	13C5-PFHxA	127%		20-150%
	13C4-PFHpA	121%		20-150%
	13C8-PFOA	116%		20-150%
	13C9-PFNA	102%		20-150%
	13C6-PFDA	104%		20-150%
	13C7-PFUnDA	103%		20-150%
	13C2-PFDoDA	102%		20-150%
	13C2-PFTeDA	92%		20-150%
	13C3-PFBS	121%		20-150%
	13C3-PFHxS	120%		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-RHP05-WGN01LF-2309		
Lab Sample ID:	FC9720-1	Date Sampled:	09/18/23
Matrix:	AQ - Ground Water	Date Received:	09/20/23
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	103%		20-150%
	13C8-FOSA	89%		20-150%
	d3-MeFOSA	90%		20-150%
	d5-EtFOSA	93%		20-150%
	d3-MeFOSAA	108%		20-150%
	d5-EtFOSAA	101%		20-150%
	d7-MeFOSE	89%		20-150%
	d9-EtFOSE	85%		20-150%
	13C2-4:2FTS	136%		20-180%
	13C2-6:2FTS	119%		20-180%
	13C2-8:2FTS	115%		20-180%
	13C3-HFPO-DA	115%		20-150%

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

Report of Analysis

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Client Sample ID:	AF-NMW32-WGN01LF-2309		
Lab Sample ID:	FC9720-2	Date Sampled:	09/18/23
Matrix:	AQ - Ground Water	Date Received:	09/20/23
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	6Q24977.D	1	09/25/23 04:50	MV	09/21/23 09:40	OP99128	S6Q356
Run #2							

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

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

375-22-4	Perfluorobutanoic acid	4.2	15	3.8	1.8	ng/l	J
2706-90-3	Perfluoropentanoic acid	5.2	7.7	1.9	0.90	ng/l	J
307-24-4	Perfluorohexanoic acid	4.5	3.8	1.9	0.48	ng/l	
375-85-9	Perfluoroheptanoic acid	3.3	3.8	1.9	0.48	ng/l	J
335-67-1	Perfluorooctanoic acid	5.9	3.8	0.96	0.48	ng/l	
375-95-1	Perfluorononanoic acid	1.9 U	3.8	1.9	0.59	ng/l	
335-76-2	Perfluorodecanoic acid	1.9 U	3.8	1.9	0.48	ng/l	
2058-94-8	Perfluoroundecanoic acid	1.9 U	3.8	1.9	0.58	ng/l	
307-55-1	Perfluorododecanoic acid	1.9 U	3.8	1.9	0.58	ng/l	
72629-94-8	Perfluorotridecanoic acid	1.9 U	3.8	1.9	0.81	ng/l	
376-06-7	Perfluorotetradecanoic acid	1.9 U	3.8	1.9	0.48	ng/l	

PERFLUOROALKYL SULFONIC ACIDS

375-73-5	Perfluorobutanesulfonic acid	3.9	3.8	1.9	0.48	ng/l	
2706-91-4	Perfluoropentanesulfonic acid	1.7	4.8	3.8	1.1	ng/l	J
355-46-4	Perfluorohexanesulfonic acid	9.7	3.8	1.9	0.67	ng/l	
375-92-8	Perfluoroheptanesulfonic acid	1.9 U	3.8	1.9	0.48	ng/l	
1763-23-1	Perfluorooctanesulfonic acid	14.7	3.8	1.9	0.52	ng/l	
68259-12-1	Perfluorononanesulfonic acid	1.9 U	3.8	1.9	0.55	ng/l	
335-77-3	Perfluorodecanesulfonic acid	1.9 U	3.8	1.9	0.62	ng/l	
79780-39-5	Perfluorododecanesulfonic aci	3.8 U	4.8	3.8	1.1	ng/l	

FLUOROTELOMER SULFONIC ACIDS

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

PERFLUOROOCCTANE SULFONAMIDES

754-91-6	PFOSA	1.9 U	3.8	1.9	0.64	ng/l	
31506-32-8	MeFOSA	3.8 U	7.7	3.8	0.96	ng/l	
4151-50-2	EtFOSA	3.8 U	7.7	3.8	0.96	ng/l	

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

Report of Analysis

Client Sample ID:	AF-NMW32-WGN01LF-2309		Date Sampled:	09/18/23
Lab Sample ID:	FC9720-2		Date Received:	09/20/23
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	3.8 U	4.8	3.8	0.96	ng/l	
2991-50-6	EtFOSAA	3.8 U	4.8	3.8	1.3	ng/l	

PERFLUOROOCCTANE SULFONAMIDO ETHANOLS

24448-09-7	MeFOSE	19 U	38	19	4.2	ng/l	
1691-99-2	EtFOSE	19 U	38	19	7.1	ng/l	

PER and POLYFLUOROETHER CARBOXYLIC ACIDS

13252-13-6	HFPO-DA (GenX)	1.9 U	3.8	1.9	0.96	ng/l	
919005-14-4	ADONA	3.8 U	7.7	3.8	1.8	ng/l	
377-73-1	PFMPA	1.9 U	7.7	1.9	0.96	ng/l	
863090-89-5	PFMBA	3.8 U	7.7	3.8	1.1	ng/l	
151772-58-6	NFDHA	3.8 U	7.7	3.8	1.2	ng/l	

PER and POLYFLUOROETHER SULFONIC ACIDS

756426-58-1	9Cl-PF3ONS (F-53B Major)	3.8 U	7.7	3.8	1.3	ng/l	
763051-92-9	11Cl-PF3OUdS (F-53B Minor)	3.8 U	7.7	3.8	1.7	ng/l	
113507-82-7	PFEESA	1.9 U	7.7	1.9	0.75	ng/l	

FLUOROTELOMER CARBOXYLIC ACIDS

356-02-5	3:3 Fluorotelomer carboxylate	9.6 U	19	9.6	4.3	ng/l	
914637-49-3	5:3 Fluorotelomer carboxylate	19 U	96	19	8.4	ng/l	
812-70-4	7:3 Fluorotelomer carboxylate	19 U	96	19	7.5	ng/l	

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
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	13C4-PFBA	95%		20-150%
	13C5-PFPeA	121%		20-150%
	13C5-PFHxA	123%		20-150%
	13C4-PFHpA	127%		20-150%
	13C8-PFOA	114%		20-150%
	13C9-PFNA	121%		20-150%
	13C6-PFDA	120%		20-150%
	13C7-PFUnDA	121%		20-150%
	13C2-PFDoDA	107%		20-150%
	13C2-PFTeDA	95%		20-150%
	13C3-PFBS	117%		20-150%
	13C3-PFHxS	109%		20-150%

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

Report of Analysis

Client Sample ID:	AF-NMW32-WGN01LF-2309		Date Sampled:	09/18/23
Lab Sample ID:	FC9720-2		Date Received:	09/20/23
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	103%		20-150%
	13C8-FOSA	95%		20-150%
	d3-MeFOSA	90%		20-150%
	d5-EtFOSA	90%		20-150%
	d3-MeFOSAA	132%		20-150%
	d5-EtFOSAA	132%		20-150%
	d7-MeFOSE	86%		20-150%
	d9-EtFOSE	88%		20-150%
	13C2-4:2FTS	115%		20-180%
	13C2-6:2FTS	111%		20-180%
	13C2-8:2FTS	110%		20-180%
	13C3-HFPO-DA	111%		20-150%

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

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

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



SGS North America Inc - Orlando

Chain of Custody

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

FC9720

COC #: 2309AFSG33

SGS - ORLANDO JOB #:

PAGE 1 OF 1

Client / Reporting Information		Project Information		SGS - ORLANDO Quote #		SKIFF #											
Company Name: AECOM		Project Name: N6274223F0104 RH Fire Suppression System		Analytical Information		Matrix Codes											
Address: 1001 Bishop St. Ste 1600		Street															
City: Honolulu State: HI Zip: 96813		City Honolulu State Hawaii															
Project Contact: Katie Abbott Email: katie.abbott@aecom.com		Project # 23FO104 - 60697810															
Project Manager: Watson Tanji Email: watson.tanji@aecom.com		Fax #															
Phone #: 303-796-4624 / 808-954-4512		Client Purchase Order # 151253		<div style="border: 1px solid black; padding: 5px;"> <p>PFAS EPA Draft 1633</p> <p style="font-size: 2em; text-align: center;">9/18/23</p> </div>		DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe											
Sampler(s) Name(s) (Printed)		Sampler 1: JJ CW MY Sampler 2:															
SGS Orlando Sample #		Field ID / Point of Collection															
2		AF-NMW32-WGN01LF-2309															
COLLECTION		CONTAINER INFORMATION															
DATE	TIME	SAMPLED BY:	MATRIX					TOTAL # OF BOTTLES	OTHER	INONE	ICI	NICH	INC03	MS04	MAOH-ZNAC	DI WATER	MICH
9/18/23	1455	JJ CW MY	GW					3			X						
Turnaround Time (Business days)		Data Deliverable Information						Comments / Remarks									
10 Day (Business) 7 Day <input checked="" type="checkbox"/> 5 Day 3 Day RUSH 2 Day RUSH 1 Day RUSH Other		Approved By: / Date: <input type="checkbox"/> COMMERCIAL "A" (RESULTS ONLY) <input type="checkbox"/> COMMERCIAL "B" (RESULTS PLUS QC) <input type="checkbox"/> REDT1 (EPA LEVEL 3) <input checked="" type="checkbox"/> FULLT1 (EPA LEVEL 4) <input checked="" type="checkbox"/> EDD'S						EDMS upload database: JBPHE EDMS Coverage: AFFF Assessment Sampling GW									
Rush T/A Data Available VIA Email or Lablink		Sample Custody must be documented below each time samples change possession, including courier delivery.															
Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Date Time:	Relinquished By/Affiliation	Date Time:	Received By/Affiliation	Date Time:										
1 <i>JJ CW MY AECOM</i>	9/18/23 1655	2 <i>Alex Edmonds</i>	9/19/23 0830	3 <i>Alex Edmonds</i>	9/19/23 0830	4 <i>UC</i>											
5 <i>UC</i>		6 <i>JJ CW MY</i>	9/20/23 0830	7		8 <i>SP</i>	5/41R#1										

PFAS_COCS_ALL_09112023-AE.xls Rev 031318

FC9720: Chain of Custody

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5.1
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QC Evaluation: DOD QSM5.x Limits

Job Number: FC9720
Account: AECOM, INC.
Project: N6274223F0104 RH Fire Suppression System
Collected: 09/18/23

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 FC9720

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: FC9720
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q356-IBLK	6Q24927.D	1	09/24/23	MV	n/a	n/a	S6Q356

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC9720-1, FC9720-2

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: FC9720
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q356-IBLK	6Q24927.D	1	09/24/23	MV	n/a	n/a	S6Q356

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC9720-1, FC9720-2

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	100% 20-150%
	13C5-PFHxA	99% 20-150%
	13C4-PFHpA	104% 20-150%
	13C8-PFOA	101% 20-150%
	13C9-PFNA	91% 20-150%
	13C6-PFDA	104% 20-150%
	13C7-PFUnDA	101% 20-150%
	13C2-PFDoDA	99% 20-150%
	13C2-PFTeDA	97% 20-150%
	13C3-PFBS	97% 20-150%
	13C3-PFHxS	100% 20-150%
	13C8-PFOS	99% 20-150%
	13C8-FOSA	96% 20-150%
	d3-MeFOSAA	92% 20-150%
	d5-EtFOSAA	96% 20-150%
	13C2-4:2FTS	106% 20-180%
	13C2-6:2FTS	106% 20-180%
	13C2-8:2FTS	102% 20-180%

6.1.1
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Instrument Blank

Job Number: FC9720
Account: AECOMCOD AECOM, INC.
Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q356-IBLK	6Q25023.D	1	09/25/23	MV	n/a	n/a	S6Q356

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC9720-1, FC9720-2

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 acid	ND	0.0050	0.0011	ug/l	
757124-72-44:2	Fluorotelomer sulfonate	ND	0.020	0.0032	ug/l	
27619-97-2	6:2 Fluorotelomer sulfonate	ND	0.020	0.0035	ug/l	
39108-34-4	8:2 Fluorotelomer sulfonate	ND	0.020	0.0041	ug/l	
754-91-6	PFOSA	ND	0.0040	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: FC9720
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q356-IBLK	6Q25023.D	1	09/25/23	MV	n/a	n/a	S6Q356

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC9720-1, FC9720-2

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	99% 20-150%
	13C5-PFHxA	96% 20-150%
	13C4-PFHpA	102% 20-150%
	13C8-PFOA	94% 20-150%
	13C9-PFNA	99% 20-150%
	13C6-PFDA	101% 20-150%
	13C7-PFUnDA	110% 20-150%
	13C2-PFDoDA	99% 20-150%
	13C2-PFTeDA	102% 20-150%
	13C3-PFBS	98% 20-150%
	13C3-PFHxS	103% 20-150%
	13C8-PFOS	99% 20-150%
	13C8-FOSA	96% 20-150%
	d3-MeFOSAA	102% 20-150%
	d5-EtFOSAA	96% 20-150%
	13C2-4:2FTS	103% 20-180%
	13C2-6:2FTS	106% 20-180%
	13C2-8:2FTS	99% 20-180%

6.12

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Continuing Calibration Blank

Job Number: FC9720
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q356-ICCB	6Q24970.D	1	09/25/23	MV	n/a	n/a	S6Q356

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC9720-1, FC9720-2

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: FC9720
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q356-ICCB	6Q24970.D	1	09/25/23	MV	n/a	n/a	S6Q356

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC9720-1, FC9720-2

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	106% 20-150%
	13C5-PFHxA	105% 20-150%
	13C4-PFHpA	105% 20-150%
	13C8-PFOA	97% 20-150%
	13C9-PFNA	95% 20-150%
	13C6-PFDA	93% 20-150%
	13C7-PFUnDA	92% 20-150%
	13C2-PFDoDA	91% 20-150%
	13C2-PFTeDA	88% 20-150%
	13C3-PFBS	107% 20-150%
	13C3-PFHxS	103% 20-150%
	13C8-PFOS	105% 20-150%
	13C8-FOSA	99% 20-150%
	d3-MeFOSAA	98% 20-150%
	d5-EtFOSAA	99% 20-150%
	13C2-4:2FTS	111% 20-180%
	13C2-6:2FTS	105% 20-180%
	13C2-8:2FTS	109% 20-180%

Method Blank Summary

Job Number: FC9720
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99128-MB	6Q24973.D	1	09/25/23	MV	09/21/23	OP99128	S6Q356

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC9720-1, FC9720-2

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: FC9720
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99128-MB	6Q24973.D	1	09/25/23	MV	09/21/23	OP99128	S6Q356

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC9720-1, FC9720-2

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	111% 20-150%
	13C5-PFPeA	115% 20-150%
	13C5-PFHxA	113% 20-150%
	13C4-PFHpA	115% 20-150%
	13C8-PFOA	110% 20-150%
	13C9-PFNA	105% 20-150%
	13C6-PFDA	114% 20-150%
	13C7-PFUnDA	110% 20-150%
	13C2-PFDoDA	110% 20-150%
	13C2-PFTeDA	112% 20-150%
	13C3-PFBS	119% 20-150%
	13C3-PFHxS	115% 20-150%
	13C8-PFOS	117% 20-150%
	13C8-FOSA	70% 20-150%
	d3-MeFOSA	78% 20-150%
	d5-EtFOSA	79% 20-150%
	d3-MeFOSAA	113% 20-150%
	d5-EtFOSAA	104% 20-150%
	d7-MeFOSE	68% 20-150%
	d9-EtFOSE	75% 20-150%
	13C2-4:2FTS	117% 20-180%
	13C2-6:2FTS	123% 20-180%
	13C2-8:2FTS	117% 20-180%
	13C3-HFPO-DA	109% 20-150%

6.1.4
6

Continuing Calibration Blank

Job Number: FC9720
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q356-ICCB	6Q25015.D	1	09/25/23	MV	n/a	n/a	S6Q356

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

S6Q356-IBLK

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: FC9720
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q356-ICCB	6Q25015.D	1	09/25/23	MV	n/a	n/a	S6Q356

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

S6Q356-IBLK

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	106% 20-150%
	13C5-PFHxA	107% 20-150%
	13C4-PFHpA	108% 20-150%
	13C8-PFOA	97% 20-150%
	13C9-PFNA	102% 20-150%
	13C6-PFDA	96% 20-150%
	13C7-PFUnDA	102% 20-150%
	13C2-PFDoDA	96% 20-150%
	13C2-PFTeDA	95% 20-150%
	13C3-PFBS	102% 20-150%
	13C3-PFHxS	108% 20-150%
	13C8-PFOS	91% 20-150%
	13C8-FOSA	97% 20-150%
	d3-MeFOSAA	95% 20-150%
	d5-EtFOSAA	94% 20-150%
	13C2-4:2FTS	109% 20-180%
	13C2-6:2FTS	113% 20-180%
	13C2-8:2FTS	103% 20-180%

Blank Spike Summary

Job Number: FC9720
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99128-LLBS	6Q24972.D	1	09/25/23	MV	09/21/23	OP99128	S6Q356

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC9720-1, FC9720-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.03	0.0277	92	40-150
2706-90-3	Perfluoropentanoic acid	0.015	0.0135	90	40-150
307-24-4	Perfluorohexanoic acid	0.0075	0.0069	92	40-150
375-85-9	Perfluoroheptanoic acid	0.0075	0.0069	92	40-150
335-67-1	Perfluorooctanoic acid	0.0075	0.0068	91	40-150
375-95-1	Perfluorononanoic acid	0.0075	0.0072	96	40-150
335-76-2	Perfluorodecanoic acid	0.0075	0.0069	92	40-150
2058-94-8	Perfluoroundecanoic acid	0.0075	0.0065	87	40-150
307-55-1	Perfluorododecanoic acid	0.0075	0.0072	96	40-150
72629-94-8	Perfluorotridecanoic acid	0.0075	0.0072	96	40-150
376-06-7	Perfluorotetradecanoic acid	0.0075	0.0073	97	40-150
375-73-5	Perfluorobutanesulfonic acid	0.00665	0.0058	87	40-150
2706-91-4	Perfluoropentanesulfonic acid	0.00706	0.0064	91	40-150
355-46-4	Perfluorohexanesulfonic acid	0.00686	0.0061	89	40-150
375-92-8	Perfluoroheptanesulfonic acid	0.00715	0.0064	90	40-150
1763-23-1	Perfluorooctanesulfonic acid	0.00696	0.0059	85	40-150
68259-12-1	Perfluorononanesulfonic acid	0.00722	0.0064	89	40-150
335-77-3	Perfluorodecanesulfonic acid	0.00724	0.0064	88	40-150
79780-39-5	Perfluorododecanesulfonic aci	0.00728	0.0065	89	40-150
757124-72-44:2	Fluorotelomer sulfonate	0.0281	0.0300	107	40-150
27619-97-2	6:2 Fluorotelomer sulfonate	0.0285	0.0262	92	40-150
39108-34-4	8:2 Fluorotelomer sulfonate	0.0288	0.0267	93	40-150
754-91-6	PFOSA	0.0075	0.0069	92	40-150
31506-32-8	MeFOSA	0.015	0.0144	96	40-150
4151-50-2	EtFOSA	0.015	0.0130	87	40-150
2355-31-9	MeFOSAA	0.0075	0.0076	101	40-150
2991-50-6	EtFOSAA	0.0075	0.0065	87	40-150
24448-09-7	MeFOSE	0.0375	0.0341	91	40-150
1691-99-2	EtFOSE	0.0375	0.0337	90	40-150
13252-13-6	HFPO-DA (GenX)	0.015	0.0144	96	40-150
919005-14-4	ADONA	0.0142	0.0146	103	40-150
377-73-1	PFMPA	0.015	0.0133	89	40-150
863090-89-5	PFMBA	0.015	0.0135	90	40-150
151772-58-6	NFDHA	0.015	0.0137	91	40-150
756426-58-19	Cl-PF3ONS (F-53B Major)	0.014	0.0152	108	40-150
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.0142	0.0136	96	40-150

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FC9720
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99128-LLBS	6Q24972.D	1	09/25/23	MV	09/21/23	OP99128	S6Q356

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC9720-1, FC9720-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
113507-82-7	PFEESA	0.0134	0.0120	90	40-150
356-02-5	3:3 Fluorotelomer carboxylate	0.0375	0.0237	63	40-150
914637-49-35:3	Fluorotelomer carboxylate	0.188	0.155	83	40-150
812-70-4	7:3 Fluorotelomer carboxylate	0.188	0.172	92	40-150

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	119%	20-150%
	13C5-PFPeA	126%	20-150%
	13C5-PFHxA	126%	20-150%
	13C4-PFHpA	126%	20-150%
	13C8-PFOA	109%	20-150%
	13C9-PFNA	117%	20-150%
	13C6-PFDA	117%	20-150%
	13C7-PFUnDA	115%	20-150%
	13C2-PFDoDA	106%	20-150%
	13C2-PFTeDA	100%	20-150%
	13C3-PFBS	120%	20-150%
	13C3-PFHxS	120%	20-150%
	13C8-PFOS	129%	20-150%
	13C8-FOSA	91%	20-150%
	d3-MeFOSA	90%	20-150%
	d5-EtFOSA	95%	20-150%
	d3-MeFOSAA	119%	20-150%
	d5-EtFOSAA	130%	20-150%
	d7-MeFOSE	80%	20-150%
	d9-EtFOSE	91%	20-150%
	13C2-4:2FTS	123%	20-180%
	13C2-6:2FTS	132%	20-180%
	13C2-8:2FTS	120%	20-180%
	13C3-HFPO-DA	115%	20-150%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FC9720
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99128-BS	6Q24971.D	1	09/25/23	MV	09/21/23	OP99128	S6Q356

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC9720-1, FC9720-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.1	0.0950	95	40-150
2706-90-3	Perfluoropentanoic acid	0.05	0.0463	93	40-150
307-24-4	Perfluorohexanoic acid	0.025	0.0232	93	40-150
375-85-9	Perfluoroheptanoic acid	0.025	0.0235	94	40-150
335-67-1	Perfluorooctanoic acid	0.025	0.0232	93	40-150
375-95-1	Perfluorononanoic acid	0.025	0.0237	95	40-150
335-76-2	Perfluorodecanoic acid	0.025	0.0213	85	40-150
2058-94-8	Perfluoroundecanoic acid	0.025	0.0237	95	40-150
307-55-1	Perfluorododecanoic acid	0.025	0.0231	92	40-150
72629-94-8	Perfluorotridecanoic acid	0.025	0.0240	96	40-150
376-06-7	Perfluorotetradecanoic acid	0.025	0.0223	89	40-150
375-73-5	Perfluorobutanesulfonic acid	0.0222	0.0209	94	40-150
2706-91-4	Perfluoropentanesulfonic acid	0.0235	0.0222	94	40-150
355-46-4	Perfluorohexanesulfonic acid	0.0229	0.0219	96	40-150
375-92-8	Perfluoroheptanesulfonic acid	0.0238	0.0230	97	40-150
1763-23-1	Perfluorooctanesulfonic acid	0.0232	0.0222	96	40-150
68259-12-1	Perfluorononanesulfonic acid	0.0241	0.0233	97	40-150
335-77-3	Perfluorodecanesulfonic acid	0.0241	0.0240	99	40-150
79780-39-5	Perfluorododecanesulfonic aci	0.0243	0.0238	98	40-150
757124-72-44:2	Fluorotelomer sulfonate	0.0938	0.0892	95	40-150
27619-97-2	6:2 Fluorotelomer sulfonate	0.095	0.0932	98	40-150
39108-34-4	8:2 Fluorotelomer sulfonate	0.096	0.0826	86	40-150
754-91-6	PFOSA	0.025	0.0222	89	40-150
31506-32-8	MeFOSA	0.05	0.0471	94	40-150
4151-50-2	EtFOSA	0.05	0.0473	95	40-150
2355-31-9	MeFOSAA	0.025	0.0207	83	40-150
2991-50-6	EtFOSAA	0.025	0.0212	85	40-150
24448-09-7	MeFOSE	0.125	0.111	89	40-150
1691-99-2	EtFOSE	0.125	0.116	93	40-150
13252-13-6	HFPO-DA (GenX)	0.05	0.0468	94	40-150
919005-14-4	ADONA	0.0473	0.0492	104	40-150
377-73-1	PFMPA	0.05	0.0397	79	40-150
863090-89-5	PFMBA	0.05	0.0453	91	40-150
151772-58-6	NFDHA	0.05	0.0468	94	40-150
756426-58-19	Cl-PF3ONS (F-53B Major)	0.0468	0.0473	101	40-150
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.0473	0.0483	102	40-150

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FC9720
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99128-BS	6Q24971.D	1	09/25/23	MV	09/21/23	OP99128	S6Q356

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC9720-1, FC9720-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
113507-82-7	PFEESA	0.0445	0.0435	98	40-150
356-02-5	3:3 Fluorotelomer carboxylate	0.125	0.112	90	40-150
914637-49-35:3	Fluorotelomer carboxylate	0.625	0.530	85	40-150
812-70-4	7:3 Fluorotelomer carboxylate	0.625	0.588	94	40-150

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	61%	20-150%
	13C5-PFPeA	121%	20-150%
	13C5-PFHxA	119%	20-150%
	13C4-PFHpA	124%	20-150%
	13C8-PFOA	122%	20-150%
	13C9-PFNA	107%	20-150%
	13C6-PFDA	130%	20-150%
	13C7-PFUnDA	126%	20-150%
	13C2-PFDoDA	124%	20-150%
	13C2-PFTeDA	116%	20-150%
	13C3-PFBS	115%	20-150%
	13C3-PFHxS	115%	20-150%
	13C8-PFOS	106%	20-150%
	13C8-FOSA	85%	20-150%
	d3-MeFOSA	88%	20-150%
	d5-EtFOSA	88%	20-150%
	d3-MeFOSAA	114%	20-150%
	d5-EtFOSAA	118%	20-150%
	d7-MeFOSE	72%	20-150%
	d9-EtFOSE	81%	20-150%
	13C2-4:2FTS	128%	20-180%
	13C2-6:2FTS	120%	20-180%
	13C2-8:2FTS	126%	20-180%
	13C3-HFPO-DA	112%	20-150%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: FC9720
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99128-MS	6Q24976.D	1	09/25/23	MV	09/21/23	OP99128	S6Q356
FC9720-1	6Q24975.D	1	09/25/23	MV	09/21/23	OP99128	S6Q356

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC9720-1, FC9720-2

CAS No.	Compound	FC9720-1 ug/l	Spike Q	MS ug/l	MS %	Limits	
375-22-4	Perfluorobutanoic acid	0.015 U		0.0962	0.0921	96	40-150
2706-90-3	Perfluoropentanoic acid	0.0075 U		0.0481	0.0454	94	40-150
307-24-4	Perfluorohexanoic acid	0.0012 J		0.024	0.0235	93	40-150
375-85-9	Perfluoroheptanoic acid	0.0012 J		0.024	0.0246	97	40-150
335-67-1	Perfluorooctanoic acid	0.0023 J		0.024	0.0260	99	40-150
375-95-1	Perfluorononanoic acid	0.0038 U		0.024	0.0219	91	40-150
335-76-2	Perfluorodecanoic acid	0.0038 U		0.024	0.0209	87	40-150
2058-94-8	Perfluoroundecanoic acid	0.0038 U		0.024	0.0226	94	40-150
307-55-1	Perfluorododecanoic acid	0.0038 U		0.024	0.0233	97	40-150
72629-94-8	Perfluorotridecanoic acid	0.0038 U		0.024	0.0233	97	40-150
376-06-7	Perfluorotetradecanoic acid	0.0038 U		0.024	0.0240	100	40-150
375-73-5	Perfluorobutanesulfonic acid	0.0011 J		0.0213	0.0208	92	40-150
2706-91-4	Perfluoropentanesulfonic acid	0.0047 U		0.0226	0.0211	93	40-150
355-46-4	Perfluorohexanesulfonic acid	0.0052		0.022	0.0263	96	40-150
375-92-8	Perfluoroheptanesulfonic acid	0.0038 U		0.0229	0.0217	95	40-150
1763-23-1	Perfluorooctanesulfonic acid	0.0036 J		0.0223	0.0262	101	40-150
68259-12-1	Perfluorononanesulfonic acid	0.0038 U		0.0231	0.0215	93	40-150
335-77-3	Perfluorodecanesulfonic acid	0.0038 U		0.0232	0.0208	90	40-150
79780-39-5	Perfluorododecanesulfonic aci	0.0047 U		0.0233	0.0206	88	40-150
757124-72-44:2	Fluorotelomer sulfonate	0.019 U		0.0901	0.0896	99	40-150
27619-97-2	6:2 Fluorotelomer sulfonate	0.019 U		0.0913	0.0890	97	40-150
39108-34-4	8:2 Fluorotelomer sulfonate	0.019 U		0.0923	0.0895	97	40-150
754-91-6	PFOSA	0.0038 U		0.024	0.0217	90	40-150
31506-32-8	MeFOSA	0.0075 U		0.0481	0.0463	96	40-150
4151-50-2	EtFOSA	0.0075 U		0.0481	0.0441	92	40-150
2355-31-9	MeFOSAA	0.0047 U		0.024	0.0199	83	40-150
2991-50-6	EtFOSAA	0.0047 U		0.024	0.0219	91	40-150
24448-09-7	MeFOSE	0.038 U		0.12	0.104	87	40-150
1691-99-2	EtFOSE	0.038 U		0.12	0.114	95	40-150
13252-13-6	HFPO-DA (GenX)	0.0038 U		0.0481	0.0479	100	40-150
919005-14-4	ADONA	0.0075 U		0.0454	0.0494	109	40-150
377-73-1	PFMPA	0.0075 U		0.0481	0.0425	88	40-150
863090-89-5	PFMBA	0.0075 U		0.0481	0.0428	89	40-150
151772-58-6	NFDHA	0.0075 U		0.0481	0.0450	94	40-150
756426-58-19	Cl-PF3ONS (F-53B Major)	0.0075 U		0.045	0.0447	99	40-150
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.0075 U		0.0454	0.0428	94	40-150

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: FC9720
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99128-MS	6Q24976.D	1	09/25/23	MV	09/21/23	OP99128	S6Q356
FC9720-1	6Q24975.D	1	09/25/23	MV	09/21/23	OP99128	S6Q356

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC9720-1, FC9720-2

CAS No.	Compound	FC9720-1 ug/l	Spike Q	MS ug/l	MS %	Limits
113507-82-7	PFEESA	0.0075 U	0.0428	0.0411	96	40-150
356-02-5	3:3 Fluorotelomer carboxylate	0.019 U	0.12	0.0921	77	40-150
914637-49-35:3	Fluorotelomer carboxylate	0.094 U	0.601	0.523	87	40-150
812-70-4	7:3 Fluorotelomer carboxylate	0.094 U	0.601	0.538	90	40-150

CAS No.	ID Standard Recoveries	MS	FC9720-1	Limits
	13C4-PFBA	98%	111%	20-150%
	13C5-PFPeA	118%	123%	20-150%
	13C5-PFHxA	115%	127%	20-150%
	13C4-PFHpA	113%	121%	20-150%
	13C8-PFOA	108%	116%	20-150%
	13C9-PFNA	106%	102%	20-150%
	13C6-PFDA	108%	104%	20-150%
	13C7-PFUnDA	108%	103%	20-150%
	13C2-PFDoDA	100%	102%	20-150%
	13C2-PFTeDA	89%	92%	20-150%
	13C3-PFBS	106%	121%	20-150%
	13C3-PFHxS	108%	120%	20-150%
	13C8-PFOS	115%	103%	20-150%
	13C8-FOSA	97%	89%	20-150%
	d3-MeFOSA	93%	90%	20-150%
	d5-EtFOSA	98%	93%	20-150%
	d3-MeFOSAA	130%	108%	20-150%
	d5-EtFOSAA	117%	101%	20-150%
	d7-MeFOSE	90%	89%	20-150%
	d9-EtFOSE	95%	85%	20-150%
	13C2-4:2FTS	108%	136%	20-180%
	13C2-6:2FTS	109%	119%	20-180%
	13C2-8:2FTS	110%	115%	20-180%
	13C3-HFPO-DA	106%	115%	20-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: FC9720
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99128-DUP	6Q24978.D	1	09/25/23	MV	09/21/23	OP99128	S6Q356
FC9720-2	6Q24977.D	1	09/25/23	MV	09/21/23	OP99128	S6Q356

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC9720-1, FC9720-2

CAS No.	Compound	FC9720-2 ug/l	DUP Q	ug/l	Q	RPD	Limits
375-22-4	Perfluorobutanoic acid	0.0042	J	0.0041	J	2	30
2706-90-3	Perfluoropentanoic acid	0.0052	J	0.0055	J	6	30
307-24-4	Perfluorohexanoic acid	0.0045		0.0049		9	30
375-85-9	Perfluoroheptanoic acid	0.0033	J	0.0037		11	30
335-67-1	Perfluorooctanoic acid	0.0059		0.0062		5	30
375-95-1	Perfluorononanoic acid	0.0038	U	0.00060	J	200*	30
335-76-2	Perfluorodecanoic acid	0.0038	U	ND		nc	30
2058-94-8	Perfluoroundecanoic acid	0.0038	U	ND		nc	30
307-55-1	Perfluorododecanoic acid	0.0038	U	ND		nc	30
72629-94-8	Perfluorotridecanoic acid	0.0038	U	ND		nc	30
376-06-7	Perfluorotetradecanoic acid	0.0038	U	ND		nc	30
375-73-5	Perfluorobutanesulfonic acid	0.0039		0.0039		0	30
2706-91-4	Perfluoropentanesulfonic acid	0.0017	J	0.0017	J	0	30
355-46-4	Perfluorohexanesulfonic acid	0.0097		0.0095		2	30
375-92-8	Perfluoroheptanesulfonic acid	0.0038	U	ND		nc	30
1763-23-1	Perfluorooctanesulfonic acid	0.0147		0.0125		16	30
68259-12-1	Perfluorononanesulfonic acid	0.0038	U	ND		nc	30
335-77-3	Perfluorodecanesulfonic acid	0.0038	U	ND		nc	30
79780-39-5	Perfluorododecanesulfonic aci	0.0048	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	0.0038	U	ND		nc	30
31506-32-8	MeFOSA	0.0077	U	ND		nc	30
4151-50-2	EtFOSA	0.0077	U	ND		nc	30
2355-31-9	MeFOSAA	0.0048	U	ND		nc	30
2991-50-6	EtFOSAA	0.0048	U	ND		nc	30
24448-09-7	MeFOSE	0.038	U	ND		nc	30
1691-99-2	EtFOSE	0.038	U	ND		nc	30
13252-13-6	HFPO-DA (GenX)	0.0038	U	ND		nc	30
919005-14-4	ADONA	0.0077	U	ND		nc	30
377-73-1	PFMPA	0.0077	U	ND		nc	30
863090-89-5	PFMBA	0.0077	U	ND		nc	30
151772-58-6	NFDHA	0.0077	U	ND		nc	30
756426-58-19	Cl-PF3ONS (F-53B Major)	0.0077	U	ND		nc	30
763051-92-91	Cl-PF3OUdS (F-53B Minor)	0.0077	U	ND		nc	30

* = Outside of Control Limits.

Duplicate Summary

Job Number: FC9720
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP99128-DUP	6Q24978.D	1	09/25/23	MV	09/21/23	OP99128	S6Q356
FC9720-2	6Q24977.D	1	09/25/23	MV	09/21/23	OP99128	S6Q356

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC9720-1, FC9720-2

CAS No.	Compound	FC9720-2 ug/l	DUP Q ug/l	Q RPD	Limits
113507-82-7	PFEESA	0.0077 U	ND	nc	30
356-02-5	3:3 Fluorotelomer carboxylate	0.019 U	ND	nc	30
914637-49-35:3	Fluorotelomer carboxylate	0.096 U	ND	nc	30
812-70-4	7:3 Fluorotelomer carboxylate	0.096 U	ND	nc	30

CAS No.	ID Standard Recoveries	DUP	FC9720-2	Limits
	13C4-PFBA	93%	95%	20-150%
	13C5-PFPeA	117%	121%	20-150%
	13C5-PFHxA	119%	123%	20-150%
	13C4-PFHpA	117%	127%	20-150%
	13C8-PFOA	106%	114%	20-150%
	13C9-PFNA	95%	121%	20-150%
	13C6-PFDA	114%	120%	20-150%
	13C7-PFUnDA	107%	121%	20-150%
	13C2-PFDoDA	100%	107%	20-150%
	13C2-PFTeDA	90%	95%	20-150%
	13C3-PFBS	113%	117%	20-150%
	13C3-PFHxS	110%	109%	20-150%
	13C8-PFOS	122%	103%	20-150%
	13C8-FOSA	99%	95%	20-150%
	d3-MeFOSA	92%	90%	20-150%
	d5-EtFOSA	90%	90%	20-150%
	d3-MeFOSAA	128%	132%	20-150%
	d5-EtFOSAA	128%	132%	20-150%
	d7-MeFOSE	89%	86%	20-150%
	d9-EtFOSE	86%	88%	20-150%
	13C2-4:2FTS	106%	115%	20-180%
	13C2-6:2FTS	107%	111%	20-180%
	13C2-8:2FTS	111%	110%	20-180%
	13C3-HFPO-DA	113%	111%	20-150%

* = Outside of Control Limits.