

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: FC6238A

Sampling Date: 05/19/23



Report to:

AECOM, Inc
7595 Technology Way
Denver, CO 80237
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watson.tanji@aecom.com; kristin.rutherford@aecom.com
ATTN: Katie Abbott

Total number of pages in report: 22



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: FC6238A

N6274223F0104 RH Fire Suppression System
Project No: 60697810

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
FC6238-3A	05/19/23	11:40	NHMY05/20/23	AQ	Ground Water	AF-RHMW17D-WGN01LF-2305W3

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: AECOM, INC.

Job No: FC6238A

Site: N6274223F0104 RH Fire Suppression System

Report Date: 7/11/2023 9:05:22 AM

On 05/20/2023, 1 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 3.5 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC6238A 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: OP97092

Sample(s) FC6325-1MS, FC6325-2DUP were used as the QC samples indicated.

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

Narrative prepared by:

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

Summary of Hits

Job Number: FC6238A
Account: AECOM, INC.
Project: N6274223F0104 RH Fire Suppression System
Collected: 05/19/23



Lab Sample ID	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
---------------	------------------	-----------------	-----	-----	-------	--------

FC6238-3A AF-RHMW17D-WGN01LF-2305W3

No hits reported in this sample.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	AF-RHMW17D-WGN01LF-2305W3		
Lab Sample ID:	FC6238-3A	Date Sampled:	05/19/23
Matrix:	AQ - Ground Water	Date Received:	05/20/23
Method:	EPA DRAFT 1633 EPA 1633 DRAFT	Percent Solids:	n/a
Project:	N6274223F0104 RH Fire Suppression System		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6Q18652.D	1	06/01/23 08:59	MV	05/26/23 10:30	OP97092	S6Q279
Run #2							

	Initial Volume	Final Volume
Run #1	60.0 ml	5.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
---------	----------	--------	-----	-----	----	-------	---

PERFLUOROALKYL CARBOXYLIC ACIDS

375-22-4	Perfluorobutanoic acid	33 U	130	33	16	ng/l	
----------	------------------------	------	-----	----	----	------	--

CAS No.	ID Standard Recoveries	Run# 1	Run# 2	Limits
---------	------------------------	--------	--------	--------

	13C4-PFBA	110%		20-150%
--	-----------	------	--	---------

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

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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


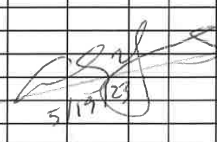
4405 Vineland Road, Suite C-15 Orlando, FL 32811
TEL: 407-425-6700 FAX: 407-425-0707
www.sgs.com

FC6238

COC #: 2305W3AFSG12

SGS - ORLANDO JOB #:

PAGE 1 OF 1

Client / Reporting Information				Project Information				Analytical Information												Matrix Codes
Company Name: AECOM				Project Name: N6274223F0104 RH Fire Suppression System				<div style="text-align: center;">  </div>												DW - Drinking Water
Address: 1001 Bishop St. ste 1600				Street																GW - Ground Water
City: Honolulu State: HI Zip: 96813				City: Honolulu State: Hawaii																WW - Water
Project Contact: Katie Abbott Email: katie.abbott@aecom.com				Project # 60697810																SW - Surface Water
Project Manager: Watson Tanji Email: watson.tanji@aecom.com				Fax #																SO - Soil
Sampler(s) Name(s) (Printed) Sampler 1: Kate Hosten Sampler 2: Matt Finn				Client Purchase Order #				SL - Sludge												
SGS Orlando Sample #	Field ID / Point of Collection	DATE		TIME		SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	NIOH	HCl	NH ₄ OH	HNO ₃	H ₂ SO ₄	MACHZINAC	DI WATER	MEDI	PFAS EPA Draft 1633	LAB USE ONLY	
1	AF-RHMW17S-WGN01LF-2305W3	5/19/23	1030	NH,MY	GW	3			X									X		
2	AF-RHMW17S-WQEB01-2305W3	5/19/23	1115	NH,MY	GW	3			X									X		
																				
Turnaround Time (Business days)				Data Deliverable Information				Comments / Remarks												
10 Day (Business) _____ 7 Day _____ <input checked="" type="checkbox"/> 5 Day _____ 3 Day RUSH _____ 2 Day RUSH _____ 1 Day RUSH _____ Other _____				Approved By: / Date: _____ <input type="checkbox"/> COMMERCIAL "A" (RESULTS ONLY) <input type="checkbox"/> COMMERCIAL "B" (RESULTS PLUS QC) <input type="checkbox"/> REDT1 (EPA LEVEL 3) <input checked="" type="checkbox"/> FULLT1 (EPA LEVEL 4) <input checked="" type="checkbox"/> EDD'S				EDMS upload database: JBPHE EDMS Coverage: AFFF Assessment Sampling GW United AWR 016-27919430												
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 1 Andy Young / AECOM		Date Time: 5/19/23 1425		Received By/Affiliation 2 I Can Sam AECOM				Relinquished By/Affiliation 3 I Can Sam AECOM				Date Time: 5/19/23 1455		Received By/Affiliation 4 [Signature] SGS 20MAY23						
Relinquished by/Affiliation 5		Date Time: 6		Received By/Affiliation 6				Relinquished By/Affiliation 7				Date Time: 8		Received By/Affiliation 8						
Lab Use Only: Cooler Temperature (s) Celsius (corrected): 3.6° [Signature]																				
http://www.sgs.com/en/terms-and-conditions																				

PFAS_COCS_ALL.xls Rev 031318

FC6238A: Chain of Custody

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SGS North America Inc - Orlando
Chain of Custody

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

FC6238
COC #: 2305W3AFSG11

SGS - ORLANDO JOB #:

PAGE 1 OF 1

Form containing Client/Reporting Information, Project Information, Analytical Information, Matrix Codes, Collection and Container Information, Turnaround Time, Data Deliverable Information, Comments/Remarks, and Relinquished/Received tables.

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PFAS_COCs_ALL.xls Rev 031318

FC6238A: Chain of Custody

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Chain of Custody

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

SGS - ORLANDO JOB # :

PAGE 1 OF 1

Client / Reporting Information		Project Information				Analytical Information										Matrix Codes		
Company Name: AECOM		Project Name: N6274223F0104 RH Fire Suppression System				PFAFAS EPA Draft 1683 										DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe		
Address: 1001 Bishop St. ste 1600		Street																
City: Honolulu State: HI Zip: 96813		City: Honolulu State: Hawaii																
Project Contact: Katie Abbott Email: katie.abbott@aecom.com		Project # 60697810																
Project Manager: Watson Tanji Email: watson.tanji@aecom.com		Fax #																
Sampler(s) Name(s) (Printed) Sampler 1: <i>Nate Hagston</i> Sampler 2: <i>Matt Tim</i>		Client Purchase Order #														LAB USE ONLY		
SGS Orlando Sample #	Field ID / Point of Collection	DATE	TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	NOVE	FULL	INCH	INCH3	INCH4	INCH-ZINC	DI WATER	MESH			
5	AF-RHMW17-WGN01LF-2305W3	5/19/23	1300	NH MY	GW	3		X										
				INITIAL ASSESSMENT														
				LABEL VERIFICATION														
Turnaround Time (Business days)				Data Deliverable Information						Comments / Remarks								
10 Day (Business)		Approved By: / Date:		<input type="checkbox"/> COMMERCIAL "A" (RESULTS ONLY) <input type="checkbox"/> COMMERCIAL "B" (RESULTS PLUS QC) <input type="checkbox"/> REDT1 (EPA LEVEL 3) <input checked="" type="checkbox"/> FULLT1 (EPA LEVEL 4) <input checked="" type="checkbox"/> EDD'S						EDMS upload database: JBPHE EDMS Coverage: AFFF Assessment Sampling GW United AWB 616-27919430								
7 Day																		
5 Day																		
3 Day RUSH																		
2 Day RUSH																		
1 Day RUSH																		
Other																		
Rush T/A Data Available VIA Email or Lablink																		
Sample Custody must be documented below each time samples change possession, including courier delivery.																		
Relinquished by Sampler/Affiliation		Date Time:		Received By/Affiliation				Date Time:		Received By/Affiliation				Date Time:				
1 Andy Young / AECOM		5/19/23 1725		2 Ken Giam AECOM				5/19/23 1755		4 [Signature] SGS				5/20/23				
Relinquished by/Affiliation		Date Time:		Received By/Affiliation				Date Time:		Received By/Affiliation				Date Time:				
5				6						7				8				
Lab Use Only : Cooler Temperature (s) Celsius (corrected): 3.6° 16°C																		
http://www.sgs.com/en/terms-and-conditions																		

PFAS_COCs_ALL.xls Rev 031318



SGS Sample Receipt Summary

Job Number: FC6238

Client: AECOM

Project: N6274223F0104 RH Fire Suppression System

Date / Time Received: 5/20/2023 2:20:00 PM

Delivery Method: United Cargo/Airspace

Airbill #'s: United Cargo AWB #: 016-27919430

Therm ID: IR 1;

Therm CF: -0.1;

of Coolers: 1

Cooler Temps (Raw Measured) °C: Cooler 1: (3.6);

Cooler Temps (Corrected) °C: Cooler 1: (3.5);

Cooler Information

Y or N

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

Trip Blank Information

Y or N N/A

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

Sample Information

Y or N N/A

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

Misc. Information

Number of Encores: 25-Gram _____ 5-Gram _____ Number of 5035 Field Kits: _____ Number of Lab Filtered Metals: _____
 Test Strip Lot #s: pH 0-3 230320 pH 10-12 _____ Other: (Specify) pH 1.0 - 12.0 222221
 Residual Chlorine Test Strip Lot #: _____

Comments

SM001
Rev. Date 05/24/17

Technician: TORYW

Date: 5/20/2023 2:20:00 PM

Reviewer: CD

Date: 5/22/2023

FC6238A: Chain of Custody

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QC Evaluation: DOD QSM5.x Limits

Job Number: FC6238A
Account: AECOM, INC.
Project: N6274223F0104 RH Fire Suppression System
Collected: 05/19/23

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

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

* Sample used for QC is not from job FC6238A

5.2
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MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: FC6238A
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP97092-MB	6Q18646.D	1	06/01/23	MV	05/26/23	OP97092	S6Q279

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6238-3A

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.016	0.0019	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C4-PFBA	113% 20-150%
	13C5-PFPeA	115% 20-150%
	13C5-PFHxA	112% 20-150%
	13C4-PFHpA	118% 20-150%
	13C8-PFOA	113% 20-150%
	13C9-PFNA	105% 20-150%
	13C6-PFDA	113% 20-150%
	13C7-PFUnDA	114% 20-150%
	13C2-PFDoDA	110% 20-150%
	13C2-PFTeDA	107% 20-150%
	13C3-PFBS	113% 20-150%
	13C3-PFHxS	114% 20-150%
	13C8-PFOS	116% 20-150%
	13C8-FOSA	81% 20-150%
	d3-MeFOSA	82% 20-150%
	d5-EtFOSA	92% 20-150%
	d3-MeFOSAA	115% 20-150%
	d5-EtFOSAA	109% 20-150%
	d7-MeFOSE	74% 20-150%
	d9-EtFOSE	92% 20-150%
	13C2-4:2FTS	127% 20-180%
	13C2-6:2FTS	128% 20-180%
	13C2-8:2FTS	113% 20-180%
	13C3-HFPO-DA	110% 20-150%

6.1.1

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Instrument Blank

Job Number: FC6238A
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q279-IBLK	6Q18594.D	1	05/31/23	MV	n/a	n/a	S6Q279

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

OP97092-BS, OP97092-LLBS, OP97092-DUP1, OP97092-MS, FC5963-8

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.016	0.0019	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C4-PFBA	100% 20-150%
	13C5-PFPeA	103% 20-150%
	13C5-PFHxA	103% 20-150%
	13C4-PFHpA	102% 20-150%
	13C8-PFOA	98% 20-150%
	13C9-PFNA	92% 20-150%
	13C6-PFDA	89% 20-150%
	13C7-PFUnDA	97% 20-150%
	13C2-PFDoDA	97% 20-150%
	13C2-PFTeDA	89% 20-150%
	13C3-PFBS	103% 20-150%
	13C3-PFHxS	103% 20-150%
	13C8-PFOS	96% 20-150%
	13C8-FOSA	105% 20-150%
	d3-MeFOSA	100% 20-150%
	d5-EtFOSA	102% 20-150%
	d3-MeFOSAA	99% 20-150%
	d5-EtFOSAA	102% 20-150%
	d7-MeFOSE	102% 20-150%
	d9-EtFOSE	103% 20-150%
	13C2-4:2FTS	107% 20-180%
	13C2-6:2FTS	104% 20-180%
	13C2-8:2FTS	111% 20-180%
	13C3-HFPO-DA	100% 20-150%

Continuing Calibration Blank

Job Number: FC6238A
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q279-ICCB	6Q18643.D	1	06/01/23	MV	n/a	n/a	S6Q279

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

OP97092-BS, OP97092-LLBS, OP97092-MB, FC5963-8

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.016	0.0019	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C4-PFBA	100% 20-150%
	13C5-PFPeA	103% 20-150%
	13C5-PFHxA	105% 20-150%
	13C4-PFHpA	104% 20-150%
	13C8-PFOA	105% 20-150%
	13C9-PFNA	101% 20-150%
	13C6-PFDA	95% 20-150%
	13C7-PFUnDA	104% 20-150%
	13C2-PFDoDA	96% 20-150%
	13C2-PFTeDA	97% 20-150%
	13C3-PFBS	106% 20-150%
	13C3-PFHxS	102% 20-150%
	13C8-PFOS	98% 20-150%
	13C8-FOSA	100% 20-150%
	d3-MeFOSA	96% 20-150%
	d5-EtFOSA	100% 20-150%
	d3-MeFOSAA	99% 20-150%
	d5-EtFOSAA	102% 20-150%
	d7-MeFOSE	100% 20-150%
	d9-EtFOSE	99% 20-150%
	13C2-4:2FTS	110% 20-180%
	13C2-6:2FTS	112% 20-180%
	13C2-8:2FTS	116% 20-180%
	13C3-HFPO-DA	100% 20-150%

6.1.3

6

Continuing Calibration Blank

Job Number: FC6238A
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
S6Q279-ICCB	6Q18654.D	1	06/01/23	MV	n/a	n/a	S6Q279

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

OP97092-DUP1, OP97092-MS

CAS No.	Compound	Result	RL	MDL	Units	Q
375-22-4	Perfluorobutanoic acid	ND	0.016	0.0019	ug/l	

CAS No.	ID Standard Recoveries	Limits
	13C4-PFBA	99% 20-150%
	13C5-PFPeA	101% 20-150%
	13C5-PFHxA	102% 20-150%
	13C4-PFHpA	105% 20-150%
	13C8-PFOA	106% 20-150%
	13C9-PFNA	96% 20-150%
	13C6-PFDA	91% 20-150%
	13C7-PFUnDA	98% 20-150%
	13C2-PFDoDA	95% 20-150%
	13C2-PFTeDA	93% 20-150%
	13C3-PFBS	102% 20-150%
	13C3-PFHxS	105% 20-150%
	13C8-PFOS	100% 20-150%
	13C8-FOSA	102% 20-150%
	d3-MeFOSA	99% 20-150%
	d5-EtFOSA	104% 20-150%
	d3-MeFOSAA	106% 20-150%
	d5-EtFOSAA	102% 20-150%
	d7-MeFOSE	104% 20-150%
	d9-EtFOSE	99% 20-150%
	13C2-4:2FTS	108% 20-180%
	13C2-6:2FTS	110% 20-180%
	13C2-8:2FTS	115% 20-180%
	13C3-HFPO-DA	98% 20-150%

6.1.4

6

Blank Spike Summary

Job Number: FC6238A
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP97092-LLBS	6Q18645.D	1	06/01/23	MV	05/26/23	OP97092	S6Q279

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6238-3A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.03	0.0320	107	40-150

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	113%	20-150%
	13C5-PFPeA	118%	20-150%
	13C5-PFHxA	122%	20-150%
	13C4-PFHpA	117%	20-150%
	13C8-PFOA	115%	20-150%
	13C9-PFNA	114%	20-150%
	13C6-PFDA	113%	20-150%
	13C7-PFUnDA	116%	20-150%
	13C2-PFDoDA	115%	20-150%
	13C2-PFTeDA	108%	20-150%
	13C3-PFBS	109%	20-150%
	13C3-PFHxS	109%	20-150%
	13C8-PFOS	114%	20-150%
	13C8-FOSA	80%	20-150%
	d3-MeFOSA	81%	20-150%
	d5-EtFOSA	88%	20-150%
	d3-MeFOSAA	122%	20-150%
	d5-EtFOSAA	110%	20-150%
	d7-MeFOSE	76%	20-150%
	d9-EtFOSE	89%	20-150%
	13C2-4:2FTS	111%	20-180%
	13C2-6:2FTS	118%	20-180%
	13C2-8:2FTS	122%	20-180%
	13C3-HFPO-DA	113%	20-150%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FC6238A
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP97092-BS	6Q18644.D	1	06/01/23	MV	05/26/23	OP97092	S6Q279

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6238-3A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
375-22-4	Perfluorobutanoic acid	0.1	0.108	108	40-150

CAS No.	ID Standard Recoveries	BSP	Limits
	13C4-PFBA	27%	20-150%
	13C5-PFPeA	104%	20-150%
	13C5-PFHxA	112%	20-150%
	13C4-PFHpA	110%	20-150%
	13C8-PFOA	109%	20-150%
	13C9-PFNA	108%	20-150%
	13C6-PFDA	106%	20-150%
	13C7-PFUnDA	105%	20-150%
	13C2-PFDoDA	105%	20-150%
	13C2-PFTeDA	100%	20-150%
	13C3-PFBS	110%	20-150%
	13C3-PFHxS	106%	20-150%
	13C8-PFOS	119%	20-150%
	13C8-FOSA	87%	20-150%
	d3-MeFOSA	91%	20-150%
	d5-EtFOSA	93%	20-150%
	d3-MeFOSAA	115%	20-150%
	d5-EtFOSAA	111%	20-150%
	d7-MeFOSE	77%	20-150%
	d9-EtFOSE	91%	20-150%
	13C2-4:2FTS	118%	20-180%
	13C2-6:2FTS	108%	20-180%
	13C2-8:2FTS	120%	20-180%
	13C3-HFPO-DA	108%	20-150%

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: FC6238A
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP97092-MS	6Q18656.D	1	06/01/23	MV	05/26/23	OP97092	S6Q279
FC6325-1	6Q18655.D	1	06/01/23	MV	05/26/23	OP97092	S6Q279

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6238-3A

CAS No.	Compound	FC6325-1 ug/l	Spike Q	MS ug/l	MS %	Limits
375-22-4	Perfluorobutanoic acid	0.015 U	0.0926	0.102	110	40-150

CAS No.	ID Standard Recoveries	MS	FC6325-1	Limits
	13C4-PFBA	76%	101%	20-150%
	13C5-PFPeA	116%	113%	20-150%
	13C5-PFHxA	112%	115%	20-150%
	13C4-PFHpA	116%	115%	20-150%
	13C8-PFOA	118%	115%	20-150%
	13C9-PFNA	113%	109%	20-150%
	13C6-PFDA	113%	112%	20-150%
	13C7-PFUnDA	116%	114%	20-150%
	13C2-PFDoDA	104%	103%	20-150%
	13C2-PFTeDA	98%	100%	20-150%
	13C3-PFBS	107%	117%	20-150%
	13C3-PFHxS	108%	108%	20-150%
	13C8-PFOS	113%	106%	20-150%
	13C8-FOSA	97%	94%	20-150%
	d3-MeFOSA	97%	89%	20-150%
	d5-EtFOSA	100%	91%	20-150%
	d3-MeFOSAA	115%	111%	20-150%
	d5-EtFOSAA	108%	111%	20-150%
	d7-MeFOSE	91%	81%	20-150%
	d9-EtFOSE	104%	91%	20-150%
	13C2-4:2FTS	112%	117%	20-180%
	13C2-6:2FTS	101%	118%	20-180%
	13C2-8:2FTS	115%	124%	20-180%
	13C3-HFPO-DA	114%	111%	20-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: FC6238A
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP97092-DUP1	6Q18658.D	1	06/01/23	MV	05/26/23	OP97092	S6Q279
FC6325-2	6Q18657.D	1	06/01/23	MV	05/26/23	OP97092	S6Q279

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6238-3A

CAS No.	Compound	FC6325-2 ug/l	DUP Q	ug/l	Q	RPD	Limits
375-22-4	Perfluorobutanoic acid	0.014 U	ND			nc	30

CAS No.	ID Standard Recoveries	DUP	FC6325-2	Limits
	13C4-PFBA	112%	114%	20-150%
	13C5-PFPeA	121%	119%	20-150%
	13C5-PFHxA	121%	117%	20-150%
	13C4-PFHpA	119%	121%	20-150%
	13C8-PFOA	119%	117%	20-150%
	13C9-PFNA	112%	112%	20-150%
	13C6-PFDA	112%	118%	20-150%
	13C7-PFUnDA	108%	112%	20-150%
	13C2-PFDoDA	98%	108%	20-150%
	13C2-PFTeDA	101%	102%	20-150%
	13C3-PFBS	117%	122%	20-150%
	13C3-PFHxS	113%	116%	20-150%
	13C8-PFOS	117%	113%	20-150%
	13C8-FOSA	91%	97%	20-150%
	d3-MeFOSA	94%	92%	20-150%
	d5-EtFOSA	95%	97%	20-150%
	d3-MeFOSAA	121%	116%	20-150%
	d5-EtFOSAA	115%	106%	20-150%
	d7-MeFOSE	92%	93%	20-150%
	d9-EtFOSE	103%	103%	20-150%
	13C2-4:2FTS	121%	129%	20-180%
	13C2-6:2FTS	122%	124%	20-180%
	13C2-8:2FTS	119%	119%	20-180%
	13C3-HFPO-DA	120%	118%	20-150%

* = Outside of Control Limits.