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Automated Report

Technical Report for

AECOM, INC.

N6274223F0104 RH Fire Suppression System

60697810

SGS Job Number: FC6033

Sampling Date: 05/11/23



Report to:

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Total number of pages in report: 35



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)
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Test results relate only to samples analyzed.

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Sample Summary

AECOM, INC.

Job No: FC6033

N6274223F0104 RH Fire Suppression System
Project No: 60697810

| Sample Number | Collected Date | Time By | Received | Matrix Code | Type | Client Sample ID |
|---------------|----------------|---------|--------------|-------------|--------------|---------------------------|
| FC6033-1 | 05/11/23 | 10:15 | AYMY05/12/23 | AQ | Ground Water | AF-RHMW02-WGN01LF-2305W2 |
| FC6033-2 | 05/11/23 | 10:15 | AYMY05/12/23 | AQ | Ground Water | AF-RHMW02-WGFD01LF-2305W2 |
| FC6033-3 | 05/11/23 | 11:45 | MYTN05/12/23 | AQ | Ground Water | AF-RHMW03-WGN01LF-2305W2 |

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: AECOM, INC.

Job No: FC6033

Site: N6274223F0104 RH Fire Suppression System

Report Date: 5/19/2023 2:49:51 PM

On 05/12/2023, 3 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 1.2 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC6033 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: OP96892

Sample(s) FC6066-3MS, FC6066-5DUP, FC6066-3MS were used as the QC samples indicated.

Blank Spike Recovery(s) for 3:3 Fluorotelomer carboxylate are outside control limits.

Matrix Spike Recovery(s) for 3:3 Fluorotelomer carboxylate, PFMBA, PFMPA are outside control limits. Probable cause is due to matrix interference.

FC6033-1 for 3:3 Fluorotelomer carboxylate: Associated BS recovery outside control limits.

FC6033-2 for 3:3 Fluorotelomer carboxylate: Associated BS recovery outside control limits.

FC6033-3 for 3:3 Fluorotelomer carboxylate: Associated BS recovery 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: FC6033
Account: AECOM, INC.
Project: N6274223F0104 RH Fire Suppression System
Collected: 05/11/23



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

FC6033-1 AF-RHMW02-WGN01LF-2305W2

No hits reported in this sample.

FC6033-2 AF-RHMW02-WGFD01LF-2305W2

No hits reported in this sample.

FC6033-3 AF-RHMW03-WGN01LF-2305W2

| | | | | | |
|-----------------------------|-------|-----|-----|------|----------------|
| Perfluoropentanoic acid | 3.6 J | 7.0 | 1.8 | ng/l | EPA DRAFT 1633 |
| Perfluorohexanoic acid | 2.5 J | 3.5 | 1.8 | ng/l | EPA DRAFT 1633 |
| Perfluoroheptanoic acid | 1.7 J | 3.5 | 1.8 | ng/l | EPA DRAFT 1633 |
| 6:2 Fluorotelomer sulfonate | 8.8 J | 18 | 7.0 | ng/l | EPA DRAFT 1633 |

Sample Results

Report of Analysis

Report of Analysis

| | | | |
|-------------------|--|-----------------|----------|
| Client Sample ID: | AF-RHMW02-WGN01LF-2305W2 | | |
| Lab Sample ID: | FC6033-1 | Date Sampled: | 05/11/23 |
| Matrix: | AQ - Ground Water | Date Received: | 05/12/23 |
| 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 | 6Q17948.D | 1 | 05/17/23 14:52 | MV | 05/16/23 11:00 | OP96892 | S6Q271 |
| Run #2 | | | | | | | |

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

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

PERFLUOROALKYL CARBOXYLIC ACIDS

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

PERFLUOROALKYL SULFONIC ACIDS

| | | | | | | | |
|------------|-------------------------------|-------|-----|-----|------|------|--|
| 375-73-5 | Perfluorobutanesulfonic acid | 1.8 U | 3.6 | 1.8 | 0.45 | ng/l | |
| 2706-91-4 | Perfluoropentanesulfonic acid | 3.6 U | 4.5 | 3.6 | 1.0 | ng/l | |
| 355-46-4 | Perfluorohexanesulfonic acid | 1.8 U | 3.6 | 1.8 | 0.64 | ng/l | |
| 375-92-8 | Perfluoroheptanesulfonic acid | 1.8 U | 3.6 | 1.8 | 0.45 | ng/l | |
| 1763-23-1 | Perfluorooctanesulfonic acid | 1.8 U | 3.6 | 1.8 | 0.49 | ng/l | |
| 68259-12-1 | Perfluorononanesulfonic acid | 1.8 U | 3.6 | 1.8 | 0.52 | ng/l | |
| 335-77-3 | Perfluorodecanesulfonic acid | 1.8 U | 3.6 | 1.8 | 0.58 | ng/l | |
| 79780-39-5 | Perfluorododecanesulfonic aci | 3.6 U | 4.5 | 3.6 | 1.0 | ng/l | |

FLUOROTELOMER SULFONIC ACIDS

| | | | | | | | |
|-------------|-----------------------------|-------|----|-----|-----|------|--|
| 757124-72-4 | 4:2 Fluorotelomer sulfonate | 7.3 U | 18 | 7.3 | 2.9 | ng/l | |
| 27619-97-2 | 6:2 Fluorotelomer sulfonate | 7.3 U | 18 | 7.3 | 3.2 | ng/l | |
| 39108-34-4 | 8:2 Fluorotelomer sulfonate | 7.3 U | 18 | 7.3 | 3.7 | ng/l | |

PERFLUOROOCCTANE SULFONAMIDES

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

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

Report of Analysis

| | | | |
|-------------------|--|-----------------|----------|
| Client Sample ID: | AF-RHMW02-WGN01LF-2305W2 | | |
| Lab Sample ID: | FC6033-1 | Date Sampled: | 05/11/23 |
| Matrix: | AQ - Ground Water | Date Received: | 05/12/23 |
| 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 |
|---------|----------|--------|-----|-----|----|-------|---|
|---------|----------|--------|-----|-----|----|-------|---|

PERFLUOROOCCTANE SULFONAMIDOACETIC ACIDS

| | | | | | | | |
|-----------|---------|-------|-----|-----|------|------|--|
| 2355-31-9 | MeFOSAA | 3.6 U | 4.5 | 3.6 | 0.91 | ng/l | |
| 2991-50-6 | EtFOSAA | 3.6 U | 4.5 | 3.6 | 1.2 | ng/l | |

PERFLUOROOCCTANE SULFONAMIDO ETHANOLS

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

PER and POLYFLUOROETHER CARBOXYLIC ACIDS

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

PER and POLYFLUOROETHER SULFONIC ACIDS

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

FLUOROTELOMER CARBOXYLIC ACIDS

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

| CAS No. | ID Standard Recoveries | Run# 1 | Run# 2 | Limits |
|---------|------------------------|--------|--------|---------|
| | 13C4-PFBA | 69% | | 20-150% |
| | 13C5-PFPeA | 95% | | 20-150% |
| | 13C5-PFHxA | 114% | | 20-150% |
| | 13C4-PFHpA | 110% | | 20-150% |
| | 13C8-PFOA | 95% | | 20-150% |
| | 13C9-PFNA | 111% | | 20-150% |
| | 13C6-PFDA | 103% | | 20-150% |
| | 13C7-PFUnDA | 85% | | 20-150% |
| | 13C2-PFDoDA | 86% | | 20-150% |
| | 13C2-PFTeDA | 69% | | 20-150% |
| | 13C3-PFBS | 98% | | 20-150% |
| | 13C3-PFHxS | 108% | | 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
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Report of Analysis

| | | |
|-------------------|--|-------------------------|
| Client Sample ID: | AF-RHMW02-WGN01LF-2305W2 | |
| Lab Sample ID: | FC6033-1 | Date Sampled: 05/11/23 |
| Matrix: | AQ - Ground Water | Date Received: 05/12/23 |
| 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 | 100% | | 20-150% |
| | 13C8-FOSA | 90% | | 20-150% |
| | d3-MeFOSA | 76% | | 20-150% |
| | d5-EtFOSA | 73% | | 20-150% |
| | d3-MeFOSAA | 95% | | 20-150% |
| | d5-EtFOSAA | 91% | | 20-150% |
| | d7-MeFOSE | 76% | | 20-150% |
| | d9-EtFOSE | 85% | | 20-150% |
| | 13C2-4:2FTS | 134% | | 20-180% |
| | 13C2-6:2FTS | 107% | | 20-180% |
| | 13C2-8:2FTS | 100% | | 20-180% |
| | 13C3-HFPO-DA | 88% | | 20-150% |

(a) Associated BS recovery 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-RHMW02-WGFD01LF-2305W2 | | |
| Lab Sample ID: | FC6033-2 | Date Sampled: | 05/11/23 |
| Matrix: | AQ - Ground Water | Date Received: | 05/12/23 |
| 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 | 6Q17949.D | 1 | 05/17/23 15:06 | MV | 05/16/23 11:00 | OP96892 | S6Q271 |
| Run #2 | | | | | | | |

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

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

PERFLUOROALKYL CARBOXYLIC ACIDS

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

PERFLUOROALKYL SULFONIC ACIDS

| | | | | | | | |
|------------|-------------------------------|-------|-----|-----|------|------|--|
| 375-73-5 | Perfluorobutanesulfonic acid | 1.8 U | 3.6 | 1.8 | 0.45 | ng/l | |
| 2706-91-4 | Perfluoropentanesulfonic acid | 3.6 U | 4.5 | 3.6 | 1.0 | ng/l | |
| 355-46-4 | Perfluorohexanesulfonic acid | 1.8 U | 3.6 | 1.8 | 0.64 | ng/l | |
| 375-92-8 | Perfluoroheptanesulfonic acid | 1.8 U | 3.6 | 1.8 | 0.45 | ng/l | |
| 1763-23-1 | Perfluorooctanesulfonic acid | 1.8 U | 3.6 | 1.8 | 0.49 | ng/l | |
| 68259-12-1 | Perfluorononanesulfonic acid | 1.8 U | 3.6 | 1.8 | 0.52 | ng/l | |
| 335-77-3 | Perfluorodecanesulfonic acid | 1.8 U | 3.6 | 1.8 | 0.58 | ng/l | |
| 79780-39-5 | Perfluorododecanesulfonic aci | 3.6 U | 4.5 | 3.6 | 1.0 | ng/l | |

FLUOROTELOMER SULFONIC ACIDS

| | | | | | | | |
|-------------|-----------------------------|-------|----|-----|-----|------|--|
| 757124-72-4 | 4:2 Fluorotelomer sulfonate | 7.3 U | 18 | 7.3 | 2.9 | ng/l | |
| 27619-97-2 | 6:2 Fluorotelomer sulfonate | 7.3 U | 18 | 7.3 | 3.2 | ng/l | |
| 39108-34-4 | 8:2 Fluorotelomer sulfonate | 7.3 U | 18 | 7.3 | 3.7 | ng/l | |

PERFLUOROOCCTANE SULFONAMIDES

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

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

4.2
4

Report of Analysis

| | | | |
|-------------------|--|-----------------|----------|
| Client Sample ID: | AF-RHMW02-WGFD01LF-2305W2 | | |
| Lab Sample ID: | FC6033-2 | Date Sampled: | 05/11/23 |
| Matrix: | AQ - Ground Water | Date Received: | 05/12/23 |
| 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 |
|---------|----------|--------|-----|-----|----|-------|---|
|---------|----------|--------|-----|-----|----|-------|---|

PERFLUOROOCCTANE SULFONAMIDOACETIC ACIDS

| | | | | | | | |
|-----------|---------|-------|-----|-----|------|------|--|
| 2355-31-9 | MeFOSAA | 3.6 U | 4.5 | 3.6 | 0.91 | ng/l | |
| 2991-50-6 | EtFOSAA | 3.6 U | 4.5 | 3.6 | 1.2 | ng/l | |

PERFLUOROOCCTANE SULFONAMIDO ETHANOLS

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

PER and POLYFLUOROETHER CARBOXYLIC ACIDS

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

PER and POLYFLUOROETHER SULFONIC ACIDS

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

FLUOROTELOMER CARBOXYLIC ACIDS

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

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

| | | | | |
|--|-------------|------|--|---------|
| | 13C4-PFBA | 83% | | 20-150% |
| | 13C5-PFPeA | 98% | | 20-150% |
| | 13C5-PFHxA | 114% | | 20-150% |
| | 13C4-PFHpA | 112% | | 20-150% |
| | 13C8-PFOA | 106% | | 20-150% |
| | 13C9-PFNA | 111% | | 20-150% |
| | 13C6-PFDA | 112% | | 20-150% |
| | 13C7-PFUnDA | 99% | | 20-150% |
| | 13C2-PFDoDA | 92% | | 20-150% |
| | 13C2-PFTeDA | 78% | | 20-150% |
| | 13C3-PFBS | 111% | | 20-150% |
| | 13C3-PFHxS | 104% | | 20-150% |

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

Report of Analysis

| | | |
|-------------------|--|-------------------------|
| Client Sample ID: | AF-RHMW02-WGFD01LF-2305W2 | |
| Lab Sample ID: | FC6033-2 | Date Sampled: 05/11/23 |
| Matrix: | AQ - Ground Water | Date Received: 05/12/23 |
| 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 | 92% | | 20-150% |
| | 13C8-FOSA | 91% | | 20-150% |
| | d3-MeFOSA | 75% | | 20-150% |
| | d5-EtFOSA | 72% | | 20-150% |
| | d3-MeFOSAA | 92% | | 20-150% |
| | d5-EtFOSAA | 90% | | 20-150% |
| | d7-MeFOSE | 81% | | 20-150% |
| | d9-EtFOSE | 86% | | 20-150% |
| | 13C2-4:2FTS | 149% | | 20-180% |
| | 13C2-6:2FTS | 112% | | 20-180% |
| | 13C2-8:2FTS | 117% | | 20-180% |
| | 13C3-HFPO-DA | 91% | | 20-150% |

(a) Associated BS recovery 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-RHMW03-WGN01LF-2305W2 | | |
| Lab Sample ID: | FC6033-3 | Date Sampled: | 05/11/23 |
| Matrix: | AQ - Ground Water | Date Received: | 05/12/23 |
| 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 | 6Q17950.D | 1 | 05/17/23 15:21 | MV | 05/16/23 11:00 | OP96892 | S6Q271 |
| 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 |
|---------|----------|--------|-----|-----|----|-------|---|
|---------|----------|--------|-----|-----|----|-------|---|

PERFLUOROALKYL CARBOXYLIC ACIDS

| | | | | | | | |
|------------|-----------------------------|--------|-----|------|------|------|---|
| 375-22-4 | Perfluorobutanoic acid | 3.5 U | 14 | 3.5 | 1.7 | ng/l | |
| 2706-90-3 | Perfluoropentanoic acid | 3.6 | 7.0 | 1.8 | 0.82 | ng/l | J |
| 307-24-4 | Perfluorohexanoic acid | 2.5 | 3.5 | 1.8 | 0.44 | ng/l | J |
| 375-85-9 | Perfluoroheptanoic acid | 1.7 | 3.5 | 1.8 | 0.44 | ng/l | J |
| 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 | 8.8 | 18 | 7.0 | 3.0 | ng/l | J |
| 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

Report of Analysis

| | | |
|-------------------|--|-------------------------|
| Client Sample ID: | AF-RHMW03-WGN01LF-2305W2 | |
| Lab Sample ID: | FC6033-3 | Date Sampled: 05/11/23 |
| Matrix: | AQ - Ground Water | Date Received: 05/12/23 |
| 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

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 carboxylat ^a | 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

| | | |
|-------------|------|---------|
| 13C4-PFBA | 80% | 20-150% |
| 13C5-PFPeA | 96% | 20-150% |
| 13C5-PFHxA | 98% | 20-150% |
| 13C4-PFHpA | 97% | 20-150% |
| 13C8-PFOA | 101% | 20-150% |
| 13C9-PFNA | 89% | 20-150% |
| 13C6-PFDA | 104% | 20-150% |
| 13C7-PFUnDA | 87% | 20-150% |
| 13C2-PFDoDA | 80% | 20-150% |
| 13C2-PFTeDA | 74% | 20-150% |
| 13C3-PFBS | 110% | 20-150% |
| 13C3-PFHxS | 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

4.3
4

Report of Analysis

| | | |
|-------------------|--|-------------------------|
| Client Sample ID: | AF-RHMW03-WGN01LF-2305W2 | |
| Lab Sample ID: | FC6033-3 | Date Sampled: 05/11/23 |
| Matrix: | AQ - Ground Water | Date Received: 05/12/23 |
| 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 | 104% | | 20-150% |
| | 13C8-FOSA | 74% | | 20-150% |
| | d3-MeFOSA | 67% | | 20-150% |
| | d5-EtFOSA | 68% | | 20-150% |
| | d3-MeFOSAA | 90% | | 20-150% |
| | d5-EtFOSAA | 97% | | 20-150% |
| | d7-MeFOSE | 66% | | 20-150% |
| | d9-EtFOSE | 78% | | 20-150% |
| | 13C2-4:2FTS | 106% | | 20-180% |
| | 13C2-6:2FTS | 96% | | 20-180% |
| | 13C2-8:2FTS | 95% | | 20-180% |
| | 13C3-HFPO-DA | 98% | | 20-150% |

(a) Associated BS recovery 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

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: 407-425-0700 FAX: 407-425-0707
www.sgs.com

SGS - ORLANDO JOB # :

FC6033
COC #: 2305W2AFSG01

PAGE 1 OF 1

Form containing Client/Reporting Information, Project Information, Analytical Information, Matrix Codes, and Chain of Custody details. Includes handwritten entries for sample collection dates (5/11/23), sampler names (Andy Young), and various checkboxes for data deliverables.

5.1 5

PFAS_COCs_ALL.xls Rev 031318

FC6033: Chain of Custody

Page 1 of 3





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
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FC6033

COC #: 2305W2AFSG02

SGS - ORLANDO JOB # :

PAGE 1 OF 1

| Client / Reporting Information | | | Project Information | | | Analytical Information | | | | | | | | | | Matrix Codes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--------------------------------|--------------|--|-------------------------|--------|--|--|-----------------------------|--|------------|--|-------------------------|--|--|--|---|--------------------------------|------|------|------------|--------|--------------------|-------|------------|----------|------|--------------|------|-------|------------|----------|------|--------------|---|--------------------------|---------|------|--------|----|---|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Company Name: AECOM | | | Project Name: N6274223F0104 RH Fire Suppression System | | | | | | | | | | | | | DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Address: 1001 Bishop St. Ste 1600 | | | Street | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| City: Honolulu State: HI Zip: 96813 | | | City: Honolulu State: Hawaii | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project Contact: Katie Abbott Email: katie.abbott@aecom.com | | | Project # 60697810 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project Manager: Watson Tanji Email: watson.tanji@aecom.com | | | Fax # | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sampler(s) Name(s) (Printed) Sampler 1: Mathrim Sampler 2: Tyler Nishikawa | | | Client Purchase Order # | | | <table border="1"> <tr> <th>SGS Orlando Sample #</th> <th>Field ID / Point of Collection</th> <th>DATE</th> <th>TIME</th> <th>SAMPLED BY</th> <th>MATRIX</th> <th>TOTAL # OF BOTTLES</th> <th>OTHER</th> <th>NONE</th> <th>PCl</th> <th>NO3-</th> <th>NO2-</th> <th>PHOS</th> <th>RESCH</th> <th>AMON-ZINAC</th> <th>DI WATER</th> <th>RECH</th> <th>LAB USE ONLY</th> </tr> <tr> <td>5</td> <td>AF-RHMW03-WGN01LF-2305W2</td> <td>5/11/23</td> <td>1145</td> <td>MY, TN</td> <td>GW</td> <td>3</td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table> | | | | | | | | | | SGS Orlando Sample # | Field ID / Point of Collection | DATE | TIME | SAMPLED BY | MATRIX | TOTAL # OF BOTTLES | OTHER | NONE | PCl | NO3- | NO2- | PHOS | RESCH | AMON-ZINAC | DI WATER | RECH | LAB USE ONLY | 5 | AF-RHMW03-WGN01LF-2305W2 | 5/11/23 | 1145 | MY, TN | GW | 3 | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SGS Orlando Sample # | Field ID / Point of Collection | DATE | TIME | SAMPLED BY | MATRIX | | | | | | | | | | | TOTAL # OF BOTTLES | OTHER | NONE | PCl | NO3- | NO2- | PHOS | RESCH | AMON-ZINAC | DI WATER | RECH | LAB USE ONLY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | AF-RHMW03-WGN01LF-2305W2 | 5/11/23 | 1145 | MY, TN | GW | | | | | | | | | | | 3 | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Turnaround Time (Business days) | | | Data Deliverable Information | | | Comments / Remarks | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 Day (Business) Approved By: / Date: _____ 7 Day _____ <input checked="" type="checkbox"/> 5 Day _____ 3 Day RUSH _____ 2 Day RUSH _____ 1 Day RUSH _____ Other _____ Rush T/A Data Available VIA Email or Lablink | | | <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 Unit # 016 97082763 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample Custody must be documented below each time samples change possession, including courier delivery. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relinquished by Sampler/Affiliation | | Date Time: | | Received By/Affiliation | | Date Time: | | Relinquished By/Affiliation | | Date Time: | | Received By/Affiliation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 Andy Youne / AECOM | | 5/11/23 1201 | | 2 Alex Edwards / AECOM | | 5/11/23 1500 | | 3 Alex Edwards / AECOM | | 5/11/23 | | 4 United Cargo | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 United Cargo | | | | 6 [Signature] / C | | 5/12/23 | | 7 | | | | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lab Use Only: Cooler Temperature (s) Celsius (corrected): _____ http://www.sgs.com/en/terms-and-conditions | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

PFAS_COCS_ALL.xls Rev 031316

FC6033: Chain of Custody

Page 2 of 3



5.1
5

SGS Sample Receipt Summary

Job Number: FC6033

Client: AECOM

Project: N6274223F0104 RH Fire Suppression System

Date / Time Received: 5/12/2023 3:00:00 PM

Delivery Method: United Cargo/Airspace

Airbill #'s: United Cargo AWB #: 016-97082963

Therm ID: IR 1;

Therm CF: -0.1;

of Coolers: 1

Cooler Temps (Raw Measured) °C: Cooler 1: (1.3);

Cooler Temps (Corrected) °C: Cooler 1: (1.2);

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: 5/12/2023 3:00:00 PM

Reviewer: CD

Date: 5/15/2023

FC6033: Chain of Custody

Page 3 of 3

QC Evaluation: DOD QSM5.x Limits

Job Number: FC6033
Account: AECOM, INC.
Project: N6274223F0104 RH Fire Suppression System
Collected: 05/11/23

| 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 FC6033

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: FC6033
Account: AECOMCOD AECOM, INC.
Project: N6274223F0104 RH Fire Suppression System

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| S6Q271-IBLK | 6Q17941.D | 1 | 05/17/23 | MV | n/a | n/a | S6Q271 |

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6033-1, FC6033-2, FC6033-3

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|----------------|--------------------------------|--------|--------|---------|-------|---|
| 375-22-4 | Perfluorobutanoic acid | ND | 0.016 | 0.0019 | ug/l | |
| 2706-90-3 | Perfluoropentanoic acid | ND | 0.0080 | 0.00094 | ug/l | |
| 307-24-4 | Perfluorohexanoic acid | ND | 0.0040 | 0.00050 | ug/l | |
| 375-85-9 | Perfluoroheptanoic acid | ND | 0.0040 | 0.00050 | ug/l | |
| 335-67-1 | Perfluorooctanoic acid | ND | 0.0040 | 0.00050 | ug/l | |
| 375-95-1 | Perfluorononanoic acid | ND | 0.0040 | 0.00061 | ug/l | |
| 335-76-2 | Perfluorodecanoic acid | ND | 0.0040 | 0.00050 | ug/l | |
| 2058-94-8 | Perfluoroundecanoic acid | ND | 0.0040 | 0.00060 | ug/l | |
| 307-55-1 | Perfluorododecanoic acid | ND | 0.0040 | 0.00060 | ug/l | |
| 72629-94-8 | Perfluorotridecanoic acid | ND | 0.0040 | 0.00084 | ug/l | |
| 376-06-7 | Perfluorotetradecanoic acid | ND | 0.0040 | 0.00050 | ug/l | |
| 375-73-5 | Perfluorobutanesulfonic acid | ND | 0.0040 | 0.00050 | ug/l | |
| 2706-91-4 | Perfluoropentanesulfonic acid | ND | 0.0050 | 0.0011 | ug/l | |
| 355-46-4 | Perfluorohexanesulfonic acid | ND | 0.0040 | 0.00070 | ug/l | |
| 375-92-8 | Perfluoroheptanesulfonic acid | ND | 0.0040 | 0.00050 | ug/l | |
| 1763-23-1 | Perfluorooctanesulfonic acid | ND | 0.0040 | 0.00054 | ug/l | |
| 68259-12-1 | Perfluorononanesulfonic acid | ND | 0.0040 | 0.00057 | ug/l | |
| 335-77-3 | Perfluorodecanesulfonic acid | ND | 0.0040 | 0.00064 | ug/l | |
| 79780-39-5 | Perfluorododecanesulfonic 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: FC6033
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| S6Q271-IBLK | 6Q17941.D | 1 | 05/17/23 | MV | n/a | n/a | S6Q271 |

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6033-1, FC6033-2, FC6033-3

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

| CAS No. | ID Standard Recoveries | Limits |
|---------|------------------------|--------------|
| | 13C4-PFBA | 101% 20-150% |
| | 13C5-PFPeA | 100% 20-150% |
| | 13C5-PFHxA | 98% 20-150% |
| | 13C4-PFHpA | 99% 20-150% |
| | 13C8-PFOA | 98% 20-150% |
| | 13C9-PFNA | 97% 20-150% |
| | 13C6-PFDA | 99% 20-150% |
| | 13C7-PFUnDA | 106% 20-150% |
| | 13C2-PFDoDA | 101% 20-150% |
| | 13C2-PFTeDA | 101% 20-150% |
| | 13C3-PFBS | 101% 20-150% |
| | 13C3-PFHxS | 96% 20-150% |
| | 13C8-PFOS | 101% 20-150% |
| | 13C8-FOSA | 111% 20-150% |
| | d3-MeFOSA | 105% 20-150% |
| | d5-EtFOSA | 103% 20-150% |
| | d3-MeFOSAA | 99% 20-150% |
| | d5-EtFOSAA | 111% 20-150% |
| | d7-MeFOSE | 115% 20-150% |
| | d9-EtFOSE | 111% 20-150% |
| | 13C2-4:2FTS | 104% 20-180% |
| | 13C2-6:2FTS | 101% 20-180% |
| | 13C2-8:2FTS | 102% 20-180% |
| | 13C3-HFPO-DA | 99% 20-150% |

6.1.1
6

Method Blank Summary

Job Number: FC6033
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

| | | | | | | | |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
| OP96892-MB | 6Q17947.D | 1 | 05/17/23 | MV | 05/16/23 | OP96892 | S6Q271 |

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6033-1, FC6033-2, FC6033-3

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|----------------|-------------------------------|--------|--------|---------|-------|---|
| 375-22-4 | Perfluorobutanoic acid | ND | 0.016 | 0.0019 | ug/l | |
| 2706-90-3 | Perfluoropentanoic acid | ND | 0.0080 | 0.00094 | ug/l | |
| 307-24-4 | Perfluorohexanoic acid | ND | 0.0040 | 0.00050 | ug/l | |
| 375-85-9 | Perfluoroheptanoic acid | ND | 0.0040 | 0.00050 | ug/l | |
| 335-67-1 | Perfluorooctanoic acid | ND | 0.0040 | 0.00050 | ug/l | |
| 375-95-1 | Perfluorononanoic acid | ND | 0.0040 | 0.00061 | ug/l | |
| 335-76-2 | Perfluorodecanoic acid | ND | 0.0040 | 0.00050 | ug/l | |
| 2058-94-8 | Perfluoroundecanoic acid | ND | 0.0040 | 0.00060 | ug/l | |
| 307-55-1 | Perfluorododecanoic acid | ND | 0.0040 | 0.00060 | ug/l | |
| 72629-94-8 | Perfluorotridecanoic acid | ND | 0.0040 | 0.00084 | ug/l | |
| 376-06-7 | Perfluorotetradecanoic acid | ND | 0.0040 | 0.00050 | ug/l | |
| 375-73-5 | Perfluorobutanesulfonic acid | ND | 0.0040 | 0.00050 | ug/l | |
| 2706-91-4 | Perfluoropentanesulfonic acid | ND | 0.0050 | 0.0011 | ug/l | |
| 355-46-4 | Perfluorohexanesulfonic acid | ND | 0.0040 | 0.00070 | ug/l | |
| 375-92-8 | Perfluoroheptanesulfonic acid | ND | 0.0040 | 0.00050 | ug/l | |
| 1763-23-1 | Perfluorooctanesulfonic acid | ND | 0.0040 | 0.00054 | ug/l | |
| 68259-12-1 | Perfluorononanesulfonic acid | ND | 0.0040 | 0.00057 | ug/l | |
| 335-77-3 | Perfluorodecanesulfonic acid | ND | 0.0040 | 0.00064 | ug/l | |
| 79780-39-5 | Perfluorododecanesulfonic aci | ND | 0.0050 | 0.0011 | ug/l | |
| 757124-72-44:2 | Fluorotelomer sulfonate | ND | 0.020 | 0.0032 | ug/l | |
| 27619-97-2 | 6:2 Fluorotelomer sulfonate | ND | 0.020 | 0.0035 | ug/l | |
| 39108-34-4 | 8:2 Fluorotelomer sulfonate | ND | 0.020 | 0.0041 | ug/l | |
| 754-91-6 | PFOSA | ND | 0.0040 | 0.00067 | ug/l | |
| 31506-32-8 | MeFOSA | ND | 0.0080 | 0.0010 | ug/l | |
| 4151-50-2 | EtFOSA | ND | 0.0080 | 0.0010 | ug/l | |
| 2355-31-9 | MeFOSAA | ND | 0.0050 | 0.0010 | ug/l | |
| 2991-50-6 | EtFOSAA | ND | 0.0050 | 0.0013 | ug/l | |
| 24448-09-7 | MeFOSE | ND | 0.040 | 0.0044 | ug/l | |
| 1691-99-2 | EtFOSE | ND | 0.040 | 0.0074 | ug/l | |
| 13252-13-6 | HFPO-DA (GenX) | ND | 0.0040 | 0.0010 | ug/l | |
| 919005-14-4 | ADONA | ND | 0.0080 | 0.0019 | ug/l | |
| 377-73-1 | PFMPA | ND | 0.0080 | 0.0010 | ug/l | |
| 863090-89-5 | PFMBA | ND | 0.0080 | 0.0011 | ug/l | |
| 151772-58-6 | NFDHA | ND | 0.0080 | 0.0012 | ug/l | |
| 756426-58-19 | Cl-PF3ONS (F-53B Major) | ND | 0.0080 | 0.0014 | ug/l | |
| 763051-92-91 | Cl-PF3OUdS (F-53B Minor) | ND | 0.0080 | 0.0018 | ug/l | |

Method Blank Summary

Job Number: FC6033
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| OP96892-MB | 6Q17947.D | 1 | 05/17/23 | MV | 05/16/23 | OP96892 | S6Q271 |

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6033-1, FC6033-2, FC6033-3

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

| CAS No. | ID Standard Recoveries | Limits |
|---------|------------------------|--------------|
| | 13C4-PFBA | 110% 20-150% |
| | 13C5-PFPeA | 108% 20-150% |
| | 13C5-PFHxA | 114% 20-150% |
| | 13C4-PFHpA | 114% 20-150% |
| | 13C8-PFOA | 110% 20-150% |
| | 13C9-PFNA | 103% 20-150% |
| | 13C6-PFDA | 106% 20-150% |
| | 13C7-PFUnDA | 103% 20-150% |
| | 13C2-PFDoDA | 98% 20-150% |
| | 13C2-PFTeDA | 97% 20-150% |
| | 13C3-PFBS | 108% 20-150% |
| | 13C3-PFHxS | 110% 20-150% |
| | 13C8-PFOS | 101% 20-150% |
| | 13C8-FOSA | 61% 20-150% |
| | d3-MeFOSA | 62% 20-150% |
| | d5-EtFOSA | 71% 20-150% |
| | d3-MeFOSAA | 103% 20-150% |
| | d5-EtFOSAA | 104% 20-150% |
| | d7-MeFOSE | 60% 20-150% |
| | d9-EtFOSE | 71% 20-150% |
| | 13C2-4:2FTS | 111% 20-180% |
| | 13C2-6:2FTS | 115% 20-180% |
| | 13C2-8:2FTS | 100% 20-180% |
| | 13C3-HFPO-DA | 111% 20-150% |

6.12
6

Continuing Calibration Blank

Job Number: FC6033
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

| | | | | | | | |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
| S6Q271-ICCB | 6Q17955.D | 1 | 05/17/23 | MV | n/a | n/a | S6Q271 |

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

OP96892-DUP

| 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: FC6033
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| S6Q271-ICCB | 6Q17955.D | 1 | 05/17/23 | MV | n/a | n/a | S6Q271 |

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

OP96892-DUP

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

| CAS No. | ID Standard Recoveries | Limits |
|---------|------------------------|--------------|
| | 13C4-PFBA | 102% 20-150% |
| | 13C5-PFPeA | 103% 20-150% |
| | 13C5-PFHxA | 107% 20-150% |
| | 13C4-PFHpA | 104% 20-150% |
| | 13C8-PFOA | 102% 20-150% |
| | 13C9-PFNA | 95% 20-150% |
| | 13C6-PFDA | 92% 20-150% |
| | 13C7-PFUnDA | 101% 20-150% |
| | 13C2-PFDoDA | 99% 20-150% |
| | 13C2-PFTeDA | 99% 20-150% |
| | 13C3-PFBS | 105% 20-150% |
| | 13C3-PFHxS | 97% 20-150% |
| | 13C8-PFOS | 92% 20-150% |
| | 13C8-FOSA | 98% 20-150% |
| | d3-MeFOSA | 89% 20-150% |
| | d5-EtFOSA | 91% 20-150% |
| | d3-MeFOSAA | 82% 20-150% |
| | d5-EtFOSAA | 94% 20-150% |
| | d7-MeFOSE | 104% 20-150% |
| | d9-EtFOSE | 101% 20-150% |
| | 13C2-4:2FTS | 97% 20-180% |
| | 13C2-6:2FTS | 96% 20-180% |
| | 13C2-8:2FTS | 92% 20-180% |
| | 13C3-HFPO-DA | 102% 20-150% |

6.1.3

6

Blank Spike Summary

Job Number: FC6033
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

| | | | | | | | |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
| OP96892-LLBS | 6Q17946.D | 1 | 05/17/23 | MV | 05/16/23 | OP96892 | S6Q271 |

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6033-1, FC6033-2, FC6033-3

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|----------------|-------------------------------|---------------|-------------|----------|--------|
| 375-22-4 | Perfluorobutanoic acid | 0.03 | 0.0285 | 95 | 40-150 |
| 2706-90-3 | Perfluoropentanoic acid | 0.015 | 0.0144 | 96 | 40-150 |
| 307-24-4 | Perfluorohexanoic acid | 0.0075 | 0.0075 | 100 | 40-150 |
| 375-85-9 | Perfluoroheptanoic acid | 0.0075 | 0.0071 | 95 | 40-150 |
| 335-67-1 | Perfluorooctanoic acid | 0.0075 | 0.0070 | 93 | 40-150 |
| 375-95-1 | Perfluorononanoic acid | 0.0075 | 0.0067 | 89 | 40-150 |
| 335-76-2 | Perfluorodecanoic acid | 0.0075 | 0.0070 | 93 | 40-150 |
| 2058-94-8 | Perfluoroundecanoic acid | 0.0075 | 0.0065 | 87 | 40-150 |
| 307-55-1 | Perfluorododecanoic acid | 0.0075 | 0.0067 | 89 | 40-150 |
| 72629-94-8 | Perfluorotridecanoic acid | 0.0075 | 0.0069 | 92 | 40-150 |
| 376-06-7 | Perfluorotetradecanoic acid | 0.0075 | 0.0067 | 89 | 40-150 |
| 375-73-5 | Perfluorobutanesulfonic acid | 0.00665 | 0.0064 | 96 | 40-150 |
| 2706-91-4 | Perfluoropentanesulfonic acid | 0.00706 | 0.0074 | 105 | 40-150 |
| 355-46-4 | Perfluorohexanesulfonic acid | 0.00686 | 0.0069 | 101 | 40-150 |
| 375-92-8 | Perfluoroheptanesulfonic acid | 0.00715 | 0.0069 | 97 | 40-150 |
| 1763-23-1 | Perfluorooctanesulfonic acid | 0.00696 | 0.0066 | 95 | 40-150 |
| 68259-12-1 | Perfluorononanesulfonic acid | 0.00722 | 0.0064 | 89 | 40-150 |
| 335-77-3 | Perfluorodecanesulfonic acid | 0.00724 | 0.0066 | 91 | 40-150 |
| 79780-39-5 | Perfluorododecanesulfonic aci | 0.00728 | 0.0070 | 96 | 40-150 |
| 757124-72-44:2 | Fluorotelomer sulfonate | 0.0281 | 0.0270 | 96 | 40-150 |
| 27619-97-2 | 6:2 Fluorotelomer sulfonate | 0.0285 | 0.0267 | 94 | 40-150 |
| 39108-34-4 | 8:2 Fluorotelomer sulfonate | 0.0288 | 0.0323 | 112 | 40-150 |
| 754-91-6 | PFOSA | 0.0075 | 0.0071 | 95 | 40-150 |
| 31506-32-8 | MeFOSA | 0.015 | 0.0147 | 98 | 40-150 |
| 4151-50-2 | EtFOSA | 0.015 | 0.0118 | 79 | 40-150 |
| 2355-31-9 | MeFOSAA | 0.0075 | 0.0063 | 84 | 40-150 |
| 2991-50-6 | EtFOSAA | 0.0075 | 0.0067 | 89 | 40-150 |
| 24448-09-7 | MeFOSE | 0.0375 | 0.0332 | 89 | 40-150 |
| 1691-99-2 | EtFOSE | 0.0375 | 0.0343 | 91 | 40-150 |
| 13252-13-6 | HFPO-DA (GenX) | 0.015 | 0.0137 | 91 | 40-150 |
| 919005-14-4 | ADONA | 0.0142 | 0.0130 | 92 | 40-150 |
| 377-73-1 | PFMPA | 0.015 | 0.0136 | 91 | 40-150 |
| 863090-89-5 | PFMBA | 0.015 | 0.0133 | 89 | 40-150 |
| 151772-58-6 | NFDHA | 0.015 | 0.0124 | 83 | 40-150 |
| 756426-58-19 | Cl-PF3ONS (F-53B Major) | 0.014 | 0.0139 | 99 | 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: FC6033
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|-----------|----|----------|----|-----------|------------|------------------|
| OP96892-LLBS | 6Q17946.D | 1 | 05/17/23 | MV | 05/16/23 | OP96892 | S6Q271 |

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6033-1, FC6033-2, FC6033-3

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|----------------|-------------------------------|------------|----------|-------|--------|
| 113507-82-7 | PFEESA | 0.0134 | 0.0111 | 83 | 40-150 |
| 356-02-5 | 3:3 Fluorotelomer carboxylate | 0.0375 | 0.0295 | 79 | 40-150 |
| 914637-49-35:3 | Fluorotelomer carboxylate | 0.188 | 0.171 | 91 | 40-150 |
| 812-70-4 | 7:3 Fluorotelomer carboxylate | 0.188 | 0.194 | 103 | 40-150 |

| CAS No. | ID Standard Recoveries | BSP | Limits |
|---------|------------------------|------|---------|
| | 13C4-PFBA | 107% | 20-150% |
| | 13C5-PFPeA | 106% | 20-150% |
| | 13C5-PFHxA | 108% | 20-150% |
| | 13C4-PFHpA | 107% | 20-150% |
| | 13C8-PFOA | 108% | 20-150% |
| | 13C9-PFNA | 114% | 20-150% |
| | 13C6-PFDA | 104% | 20-150% |
| | 13C7-PFUnDA | 113% | 20-150% |
| | 13C2-PFDoDA | 106% | 20-150% |
| | 13C2-PFTeDA | 103% | 20-150% |
| | 13C3-PFBS | 108% | 20-150% |
| | 13C3-PFHxS | 99% | 20-150% |
| | 13C8-PFOS | 104% | 20-150% |
| | 13C8-FOSA | 86% | 20-150% |
| | d3-MeFOSA | 78% | 20-150% |
| | d5-EtFOSA | 84% | 20-150% |
| | d3-MeFOSAA | 108% | 20-150% |
| | d5-EtFOSAA | 102% | 20-150% |
| | d7-MeFOSE | 74% | 20-150% |
| | d9-EtFOSE | 84% | 20-150% |
| | 13C2-4:2FTS | 105% | 20-180% |
| | 13C2-6:2FTS | 108% | 20-180% |
| | 13C2-8:2FTS | 101% | 20-180% |
| | 13C3-HFPO-DA | 106% | 20-150% |

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FC6033
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

| | | | | | | | |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
| OP96892-BS | 6Q17945.D | 1 | 05/17/23 | MV | 05/16/23 | OP96892 | S6Q271 |

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6033-1, FC6033-2, FC6033-3

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|----------------|-------------------------------|---------------|-------------|----------|--------|
| 375-22-4 | Perfluorobutanoic acid | 0.1 | 0.0944 | 94 | 40-150 |
| 2706-90-3 | Perfluoropentanoic acid | 0.05 | 0.0476 | 95 | 40-150 |
| 307-24-4 | Perfluorohexanoic acid | 0.025 | 0.0237 | 95 | 40-150 |
| 375-85-9 | Perfluoroheptanoic acid | 0.025 | 0.0258 | 103 | 40-150 |
| 335-67-1 | Perfluorooctanoic acid | 0.025 | 0.0234 | 94 | 40-150 |
| 375-95-1 | Perfluorononanoic acid | 0.025 | 0.0241 | 96 | 40-150 |
| 335-76-2 | Perfluorodecanoic acid | 0.025 | 0.0246 | 98 | 40-150 |
| 2058-94-8 | Perfluoroundecanoic acid | 0.025 | 0.0237 | 95 | 40-150 |
| 307-55-1 | Perfluorododecanoic acid | 0.025 | 0.0237 | 95 | 40-150 |
| 72629-94-8 | Perfluorotridecanoic acid | 0.025 | 0.0240 | 96 | 40-150 |
| 376-06-7 | Perfluorotetradecanoic acid | 0.025 | 0.0230 | 92 | 40-150 |
| 375-73-5 | Perfluorobutanesulfonic acid | 0.0222 | 0.0209 | 94 | 40-150 |
| 2706-91-4 | Perfluoropentanesulfonic acid | 0.0235 | 0.0228 | 97 | 40-150 |
| 355-46-4 | Perfluorohexanesulfonic acid | 0.0229 | 0.0211 | 92 | 40-150 |
| 375-92-8 | Perfluoroheptanesulfonic acid | 0.0238 | 0.0231 | 97 | 40-150 |
| 1763-23-1 | Perfluorooctanesulfonic acid | 0.0232 | 0.0233 | 100 | 40-150 |
| 68259-12-1 | Perfluorononanesulfonic acid | 0.0241 | 0.0237 | 99 | 40-150 |
| 335-77-3 | Perfluorodecanesulfonic acid | 0.0241 | 0.0237 | 98 | 40-150 |
| 79780-39-5 | Perfluorododecanesulfonic aci | 0.0243 | 0.0227 | 94 | 40-150 |
| 757124-72-44:2 | Fluorotelomer sulfonate | 0.0938 | 0.0978 | 104 | 40-150 |
| 27619-97-2 | 6:2 Fluorotelomer sulfonate | 0.095 | 0.0877 | 92 | 40-150 |
| 39108-34-4 | 8:2 Fluorotelomer sulfonate | 0.096 | 0.0939 | 98 | 40-150 |
| 754-91-6 | PFOSA | 0.025 | 0.0241 | 96 | 40-150 |
| 31506-32-8 | MeFOSA | 0.05 | 0.0451 | 90 | 40-150 |
| 4151-50-2 | EtFOSA | 0.05 | 0.0474 | 95 | 40-150 |
| 2355-31-9 | MeFOSAA | 0.025 | 0.0236 | 94 | 40-150 |
| 2991-50-6 | EtFOSAA | 0.025 | 0.0237 | 95 | 40-150 |
| 24448-09-7 | MeFOSE | 0.125 | 0.116 | 93 | 40-150 |
| 1691-99-2 | EtFOSE | 0.125 | 0.110 | 88 | 40-150 |
| 13252-13-6 | HFPO-DA (GenX) | 0.05 | 0.0484 | 97 | 40-150 |
| 919005-14-4 | ADONA | 0.0473 | 0.0438 | 93 | 40-150 |
| 377-73-1 | PFMPA | 0.05 | 0.0212 | 42 | 40-150 |
| 863090-89-5 | PFMBA | 0.05 | 0.0491 | 98 | 40-150 |
| 151772-58-6 | NFDHA | 0.05 | 0.0430 | 86 | 40-150 |
| 756426-58-19 | Cl-PF3ONS (F-53B Major) | 0.0468 | 0.0422 | 90 | 40-150 |
| 763051-92-91 | Cl-PF3OUdS (F-53B Minor) | 0.0473 | 0.0433 | 92 | 40-150 |

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FC6033
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| OP96892-BS | 6Q17945.D | 1 | 05/17/23 | MV | 05/16/23 | OP96892 | S6Q271 |

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6033-1, FC6033-2, FC6033-3

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|----------------|-------------------------------|------------|----------|-------|--------|
| 113507-82-7 | PFEESA | 0.0445 | 0.0389 | 87 | 40-150 |
| 356-02-5 | 3:3 Fluorotelomer carboxylate | 0.125 | 0.0466 | 37* | 40-150 |
| 914637-49-35:3 | Fluorotelomer carboxylate | 0.625 | 0.534 | 85 | 40-150 |
| 812-70-4 | 7:3 Fluorotelomer carboxylate | 0.625 | 0.600 | 96 | 40-150 |

| CAS No. | ID Standard Recoveries | BSP | Limits |
|---------|------------------------|------|---------|
| | 13C4-PFBA | 25% | 20-150% |
| | 13C5-PFPeA | 101% | 20-150% |
| | 13C5-PFHxA | 115% | 20-150% |
| | 13C4-PFHpA | 106% | 20-150% |
| | 13C8-PFOA | 114% | 20-150% |
| | 13C9-PFNA | 98% | 20-150% |
| | 13C6-PFDA | 118% | 20-150% |
| | 13C7-PFUnDA | 109% | 20-150% |
| | 13C2-PFDoDA | 110% | 20-150% |
| | 13C2-PFTeDA | 112% | 20-150% |
| | 13C3-PFBS | 112% | 20-150% |
| | 13C3-PFHxS | 110% | 20-150% |
| | 13C8-PFOS | 112% | 20-150% |
| | 13C8-FOSA | 94% | 20-150% |
| | d3-MeFOSA | 91% | 20-150% |
| | d5-EtFOSA | 89% | 20-150% |
| | d3-MeFOSAA | 108% | 20-150% |
| | d5-EtFOSAA | 114% | 20-150% |
| | d7-MeFOSE | 73% | 20-150% |
| | d9-EtFOSE | 87% | 20-150% |
| | 13C2-4:2FTS | 101% | 20-180% |
| | 13C2-6:2FTS | 115% | 20-180% |
| | 13C2-8:2FTS | 109% | 20-180% |
| | 13C3-HFPO-DA | 109% | 20-150% |

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: FC6033
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| OP96892-MS | 6Q17953.D | 1 | 05/17/23 | MV | 05/16/23 | OP96892 | S6Q271 |
| FC6066-3 | 6Q17952.D | 1 | 05/17/23 | MV | 05/16/23 | OP96892 | S6Q271 |

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6033-1, FC6033-2, FC6033-3

| CAS No. | Compound | FC6066-3 ug/l | Spike Q | MS ug/l | MS % | Limits |
|----------------|-------------------------------|------------------|------------|------------|---------|--------|
| 375-22-4 | Perfluorobutanoic acid | 0.015 U | 0.0943 | 0.0833 | 88 | 40-150 |
| 2706-90-3 | Perfluoropentanoic acid | 0.0077 U | 0.0472 | 0.0487 | 103 | 40-150 |
| 307-24-4 | Perfluorohexanoic acid | 0.0038 U | 0.0236 | 0.0223 | 95 | 40-150 |
| 375-85-9 | Perfluoroheptanoic acid | 0.0038 U | 0.0236 | 0.0235 | 100 | 40-150 |
| 335-67-1 | Perfluorooctanoic acid | 0.0038 U | 0.0236 | 0.0225 | 95 | 40-150 |
| 375-95-1 | Perfluorononanoic acid | 0.0038 U | 0.0236 | 0.0246 | 104 | 40-150 |
| 335-76-2 | Perfluorodecanoic acid | 0.0038 U | 0.0236 | 0.0237 | 100 | 40-150 |
| 2058-94-8 | Perfluoroundecanoic acid | 0.0038 U | 0.0236 | 0.0235 | 100 | 40-150 |
| 307-55-1 | Perfluorododecanoic acid | 0.0038 U | 0.0236 | 0.0238 | 101 | 40-150 |
| 72629-94-8 | Perfluorotridecanoic acid | 0.0038 U | 0.0236 | 0.0212 | 90 | 40-150 |
| 376-06-7 | Perfluorotetradecanoic acid | 0.0038 U | 0.0236 | 0.0241 | 102 | 40-150 |
| 375-73-5 | Perfluorobutanesulfonic acid | 0.0038 U | 0.0209 | 0.0206 | 98 | 40-150 |
| 2706-91-4 | Perfluoropentanesulfonic acid | 0.0048 U | 0.0222 | 0.0226 | 102 | 40-150 |
| 355-46-4 | Perfluorohexanesulfonic acid | 0.0038 U | 0.0216 | 0.0217 | 101 | 40-150 |
| 375-92-8 | Perfluoroheptanesulfonic acid | 0.0071 | 0.0225 | 0.0314 | 108 | 40-150 |
| 1763-23-1 | Perfluorooctanesulfonic acid | 0.0038 U | 0.0219 | 0.0241 | 110 | 40-150 |
| 68259-12-1 | Perfluorononanesulfonic acid | 0.0038 U | 0.0227 | 0.0225 | 99 | 40-150 |
| 335-77-3 | Perfluorodecanesulfonic acid | 0.0038 U | 0.0228 | 0.0226 | 99 | 40-150 |
| 79780-39-5 | Perfluorododecanesulfonic aci | 0.0048 U | 0.0229 | 0.0138 | 60 | 40-150 |
| 757124-72-44:2 | Fluorotelomer sulfonate | 0.019 U | 0.0884 | 0.0914 | 103 | 40-150 |
| 27619-97-2 | 6:2 Fluorotelomer sulfonate | 0.019 U | 0.0896 | 0.0974 | 109 | 40-150 |
| 39108-34-4 | 8:2 Fluorotelomer sulfonate | 0.019 U | 0.0906 | 0.104 | 115 | 40-150 |
| 754-91-6 | PFOSA | 0.0038 U | 0.0236 | 0.0210 | 89 | 40-150 |
| 31506-32-8 | MeFOSA | 0.0077 U | 0.0472 | 0.0462 | 98 | 40-150 |
| 4151-50-2 | EtFOSA | 0.0077 U | 0.0472 | 0.0437 | 93 | 40-150 |
| 2355-31-9 | MeFOSAA | 0.0048 U | 0.0236 | 0.0252 | 107 | 40-150 |
| 2991-50-6 | EtFOSAA | 0.0048 U | 0.0236 | 0.0217 | 92 | 40-150 |
| 24448-09-7 | MeFOSE | 0.038 U | 0.118 | 0.108 | 92 | 40-150 |
| 1691-99-2 | EtFOSE | 0.038 U | 0.118 | 0.117 | 99 | 40-150 |
| 13252-13-6 | HFPO-DA (GenX) | 0.0038 U | 0.0472 | 0.0474 | 100 | 40-150 |
| 919005-14-4 | ADONA | 0.0077 U | 0.0446 | 0.0486 | 109 | 40-150 |
| 377-73-1 | PFMPA | 0.0077 U | 0.0472 | 0.0126 | 27* | 40-150 |
| 863090-89-5 | PFMBA | 0.0077 U | 0.0472 | 0.0725 | 154* | 40-150 |
| 151772-58-6 | NFDHA | 0.0077 U | 0.0472 | 0.0386 | 82 | 40-150 |
| 756426-58-19 | Cl-PF3ONS (F-53B Major) | 0.0077 U | 0.0441 | 0.0473 | 107 | 40-150 |
| 763051-92-91 | Cl-PF3OUdS (F-53B Minor) | 0.0077 U | 0.0446 | 0.0409 | 92 | 40-150 |

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: FC6033
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|-----------|----|----------|----|-----------|------------|------------------|
| OP96892-MS | 6Q17953.D | 1 | 05/17/23 | MV | 05/16/23 | OP96892 | S6Q271 |
| FC6066-3 | 6Q17952.D | 1 | 05/17/23 | MV | 05/16/23 | OP96892 | S6Q271 |

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6033-1, FC6033-2, FC6033-3

| CAS No. | Compound | FC6066-3 ug/l | Spike Q | MS ug/l | MS % | Limits |
|----------------|-------------------------------|------------------|------------|------------|---------|--------|
| 113507-82-7 | PFEESA | 0.0077 U | 0.042 | 0.0419 | 100 | 40-150 |
| 356-02-5 | 3:3 Fluorotelomer carboxylate | 0.019 U | 0.118 | 0.0374 | 32* | 40-150 |
| 914637-49-35:3 | Fluorotelomer carboxylate | 0.096 U | 0.59 | 0.590 | 100 | 40-150 |
| 812-70-4 | 7:3 Fluorotelomer carboxylate | 0.096 U | 0.59 | 0.623 | 106 | 40-150 |

| CAS No. | ID Standard Recoveries | MS | FC6066-3 | Limits |
|---------|------------------------|-------|----------|---------|
| | 13C4-PFBA | 4%* a | 5%* a | 20-150% |
| | 13C5-PFPeA | 28% | 33% | 20-150% |
| | 13C5-PFHxA | 93% | 103% | 20-150% |
| | 13C4-PFHpA | 102% | 110% | 20-150% |
| | 13C8-PFOA | 105% | 117% | 20-150% |
| | 13C9-PFNA | 98% | 104% | 20-150% |
| | 13C6-PFDA | 101% | 109% | 20-150% |
| | 13C7-PFUnDA | 97% | 90% | 20-150% |
| | 13C2-PFDoDA | 90% | 87% | 20-150% |
| | 13C2-PFTeDA | 67% | 64% | 20-150% |
| | 13C3-PFBS | 106% | 110% | 20-150% |
| | 13C3-PFHxS | 109% | 114% | 20-150% |
| | 13C8-PFOS | 113% | 110% | 20-150% |
| | 13C8-FOSA | 113% | 90% | 20-150% |
| | d3-MeFOSA | 103% | 93% | 20-150% |
| | d5-EtFOSA | 104% | 99% | 20-150% |
| | d3-MeFOSAA | 134% | 146% | 20-150% |
| | d5-EtFOSAA | 150% | 148% | 20-150% |
| | d7-MeFOSE | 89% | 69% | 20-150% |
| | d9-EtFOSE | 95% | 82% | 20-150% |
| | 13C2-4:2FTS | 106% | 107% | 20-180% |
| | 13C2-6:2FTS | 111% | 120% | 20-180% |
| | 13C2-8:2FTS | 107% | 131% | 20-180% |
| | 13C3-HFPO-DA | 87% | 92% | 20-150% |

(a) Outside control limits.

* = Outside of Control Limits.

Duplicate Summary

Job Number: FC6033
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP96892-DUP | 6Q17959.D | 1 | 05/17/23 | MV | 05/16/23 | OP96892 | S6Q271 |
| FC6066-5 | 6Q17958.D | 1 | 05/17/23 | MV | 05/16/23 | OP96892 | S6Q271 |

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6033-1, FC6033-2, FC6033-3

| CAS No. | Compound | FC6066-5 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 | 0.0037 J | 0.0038 | J | 3 | 30 | 30 |
| 307-24-4 | Perfluorohexanoic acid | 0.0024 J | 0.0024 | J | 0 | 30 | 30 |
| 375-85-9 | Perfluoroheptanoic acid | 0.00092 J | 0.0010 | J | 8 | 30 | 30 |
| 335-67-1 | Perfluorooctanoic acid | 0.0036 U | | ND | | nc | 30 |
| 375-95-1 | Perfluorononanoic acid | 0.0036 U | | ND | | nc | 30 |
| 335-76-2 | Perfluorodecanoic acid | 0.0036 U | | ND | | nc | 30 |
| 2058-94-8 | Perfluoroundecanoic acid | 0.0036 U | | ND | | nc | 30 |
| 307-55-1 | Perfluorododecanoic acid | 0.0036 U | | ND | | nc | 30 |
| 72629-94-8 | Perfluorotridecanoic acid | 0.0036 U | | ND | | nc | 30 |
| 376-06-7 | Perfluorotetradecanoic acid | 0.0036 U | | ND | | nc | 30 |
| 375-73-5 | Perfluorobutanesulfonic acid | 0.0036 U | | ND | | nc | 30 |
| 2706-91-4 | Perfluoropentanesulfonic acid | 0.0045 U | | ND | | nc | 30 |
| 355-46-4 | Perfluorohexanesulfonic acid | 0.0036 U | | ND | | nc | 30 |
| 375-92-8 | Perfluoroheptanesulfonic acid | 0.0036 U | | ND | | nc | 30 |
| 1763-23-1 | Perfluorooctanesulfonic acid | 0.0036 U | | ND | | nc | 30 |
| 68259-12-1 | Perfluorononanesulfonic acid | 0.0036 U | | ND | | nc | 30 |
| 335-77-3 | Perfluorodecanesulfonic acid | 0.0036 U | | ND | | nc | 30 |
| 79780-39-5 | Perfluorododecanesulfonic aci | 0.0045 U | | ND | | nc | 30 |
| 757124-72-44:2 | Fluorotelomer sulfonate | 0.018 U | | ND | | nc | 30 |
| 27619-97-2 | 6:2 Fluorotelomer sulfonate | 0.0165 J | 0.0193 | | 16 | 30 | 30 |
| 39108-34-4 | 8:2 Fluorotelomer sulfonate | 0.018 U | | ND | | nc | 30 |
| 754-91-6 | PFOSA | 0.0036 U | | ND | | nc | 30 |
| 31506-32-8 | MeFOSA | 0.0073 U | | ND | | nc | 30 |
| 4151-50-2 | EtFOSA | 0.0073 U | | ND | | nc | 30 |
| 2355-31-9 | MeFOSAA | 0.0045 U | | ND | | nc | 30 |
| 2991-50-6 | EtFOSAA | 0.0045 U | | ND | | nc | 30 |
| 24448-09-7 | MeFOSE | 0.036 U | | ND | | nc | 30 |
| 1691-99-2 | EtFOSE | 0.036 U | | ND | | nc | 30 |
| 13252-13-6 | HFPO-DA (GenX) | 0.0036 U | | ND | | nc | 30 |
| 919005-14-4 | ADONA | 0.0073 U | | ND | | nc | 30 |
| 377-73-1 | PFMPA | 0.0073 U | | ND | | nc | 30 |
| 863090-89-5 | PFMBA | 0.0073 U | | ND | | nc | 30 |
| 151772-58-6 | NFDHA | 0.0073 U | | ND | | nc | 30 |
| 756426-58-19 | Cl-PF3ONS (F-53B Major) | 0.0073 U | | ND | | nc | 30 |
| 763051-92-91 | Cl-PF3OUdS (F-53B Minor) | 0.0073 U | | ND | | nc | 30 |

* = Outside of Control Limits.

Duplicate Summary

Job Number: FC6033
 Account: AECOMCOD AECOM, INC.
 Project: N6274223F0104 RH Fire Suppression System

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|-----------|----|----------|----|-----------|------------|------------------|
| OP96892-DUP | 6Q17959.D | 1 | 05/17/23 | MV | 05/16/23 | OP96892 | S6Q271 |
| FC6066-5 | 6Q17958.D | 1 | 05/17/23 | MV | 05/16/23 | OP96892 | S6Q271 |

The QC reported here applies to the following samples:

Method: EPA DRAFT 1633

FC6033-1, FC6033-2, FC6033-3

| CAS No. | Compound | FC6066-5 ug/l | DUP Q | ug/l | Q | RPD | Limits |
|----------------|-------------------------------|------------------|----------|------|---|-----|--------|
| 113507-82-7 | PFEESA | 0.0073 | U | ND | | nc | 30 |
| 356-02-5 | 3:3 Fluorotelomer carboxylate | 0.018 | U | ND | | nc | 30 |
| 914637-49-35:3 | Fluorotelomer carboxylate | 0.091 | U | ND | | nc | 30 |
| 812-70-4 | 7:3 Fluorotelomer carboxylate | 0.091 | U | ND | | nc | 30 |

| CAS No. | ID Standard Recoveries | DUP | FC6066-5 | Limits |
|---------|------------------------|------|----------|---------|
| | 13C4-PFBA | 90% | 98% | 20-150% |
| | 13C5-PFPeA | 100% | 109% | 20-150% |
| | 13C5-PFHxA | 108% | 114% | 20-150% |
| | 13C4-PFHpA | 104% | 107% | 20-150% |
| | 13C8-PFOA | 105% | 109% | 20-150% |
| | 13C9-PFNA | 93% | 115% | 20-150% |
| | 13C6-PFDA | 92% | 110% | 20-150% |
| | 13C7-PFUnDA | 67% | 85% | 20-150% |
| | 13C2-PFDoDA | 56% | 63% | 20-150% |
| | 13C2-PFTeDA | 37% | 46% | 20-150% |
| | 13C3-PFBS | 108% | 108% | 20-150% |
| | 13C3-PFHxS | 103% | 105% | 20-150% |
| | 13C8-PFOS | 77% | 106% | 20-150% |
| | 13C8-FOSA | 81% | 90% | 20-150% |
| | d3-MeFOSA | 59% | 79% | 20-150% |
| | d5-EtFOSA | 59% | 86% | 20-150% |
| | d3-MeFOSAA | 75% | 113% | 20-150% |
| | d5-EtFOSAA | 79% | 117% | 20-150% |
| | d7-MeFOSE | 61% | 80% | 20-150% |
| | d9-EtFOSE | 64% | 95% | 20-150% |
| | 13C2-4:2FTS | 112% | 111% | 20-180% |
| | 13C2-6:2FTS | 114% | 117% | 20-180% |
| | 13C2-8:2FTS | 81% | 88% | 20-180% |
| | 13C3-HFPO-DA | 101% | 105% | 20-150% |

* = Outside of Control Limits.