

# ANALYTICAL REPORT

## PREPARED FOR

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## JOB DESCRIPTION

INTERA - Red-Hill-Incident  
Site H1 PFAS 1633

## JOB NUMBER

380-214755-1

# Eurofins Pomona

## Job Notes

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The test results in this report relate only to the samples as received by the laboratory and meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Drinking Water and Wastewater West, LLC Project Manager.

## Compliance Statement

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report shall not be reproduced except in full, without the written approval of the laboratory.
5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.  
(DW, Water matrices)

## Authorization



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## Definitions/Glossary

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-214755-1  
SDG: Site H1 PFAS 1633

### Qualifiers

#### LCMS

| Qualifier | Qualifier Description                                                                                          |
|-----------|----------------------------------------------------------------------------------------------------------------|
| J         | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

### Glossary

| Abbreviation   | These commonly used abbreviations may or may not be present in this report.                                 |
|----------------|-------------------------------------------------------------------------------------------------------------|
| ☼              | Listed under the "D" column to designate that the result is reported on a dry weight basis                  |
| %R             | Percent Recovery                                                                                            |
| CFL            | Contains Free Liquid                                                                                        |
| CFU            | Colony Forming Unit                                                                                         |
| CNF            | Contains No Free Liquid                                                                                     |
| DER            | Duplicate Error Ratio (normalized absolute difference)                                                      |
| Dil Fac        | Dilution Factor                                                                                             |
| DL             | Detection Limit (DoD/DOE)                                                                                   |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC            | Decision Level Concentration (Radiochemistry)                                                               |
| EDL            | Estimated Detection Limit (Dioxin)                                                                          |
| LOD            | Limit of Detection (DoD/DOE)                                                                                |
| LOQ            | Limit of Quantitation (DoD/DOE)                                                                             |
| MCL            | EPA recommended "Maximum Contaminant Level"                                                                 |
| MDA            | Minimum Detectable Activity (Radiochemistry)                                                                |
| MDC            | Minimum Detectable Concentration (Radiochemistry)                                                           |
| MDL            | Method Detection Limit                                                                                      |
| ML             | Minimum Level (Dioxin)                                                                                      |
| MPN            | Most Probable Number                                                                                        |
| MQL            | Method Quantitation Limit                                                                                   |
| NC             | Not Calculated                                                                                              |
| ND             | Not Detected at the reporting limit (or MDL or EDL if shown)                                                |
| NEG            | Negative / Absent                                                                                           |
| POS            | Positive / Present                                                                                          |
| PQL            | Practical Quantitation Limit                                                                                |
| PRES           | Presumptive                                                                                                 |
| QC             | Quality Control                                                                                             |
| RER            | Relative Error Ratio (Radiochemistry)                                                                       |
| RL             | Reporting Limit or Requested Limit (Radiochemistry)                                                         |
| RPD            | Relative Percent Difference, a measure of the relative difference between two points                        |
| TEF            | Toxicity Equivalent Factor (Dioxin)                                                                         |
| TEQ            | Toxicity Equivalent Quotient (Dioxin)                                                                       |
| TNTC           | Too Numerous To Count                                                                                       |

## Case Narrative

Client: City & County of Honolulu  
Project: INTERA - Red-Hill-Incident

Job ID: 380-214755-1

**Job ID: 380-214755-1**

**Eurofins Pomona**

### **Job Narrative 380-214755-1**

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

### **Receipt**

The sample was received on 5/19/2026 9:20 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.7°C.

### **PFAS**

Method QSM B-24: If aqueous samples were extracted beyond 7 days from collection, NMeFOSE, NEtFOSE, NMeFOSAA, and NEtFOSAA may be affected. If soil or tissue samples were extracted beyond 3 days from collection, NFDHA may be affected. If sample extracts, regardless of matrix, were analyzed beyond 28 days from extraction, 9Cl-PF3ONS and 11Cl-PF3OUdS may be affected. Per DoD Environmental Data Quality Workgroup Memorandum dated March 27, 2025, none of these analytes have associated regulatory limits or toxicity factors, thus any additional uncertainty associated with a holding time exceedance for these analytes will not affect current decision making and the DoD is willing to accept any additional uncertainty.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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## Detection Summary

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-214755-1  
SDG: Site H1 PFAS 1633

**Client Sample ID: BWS2253-H1-AQ**

**Lab Sample ID: 380-214755-1**

No Detections.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-214755-1  
SDG: Site H1 PFAS 1633

Client Sample ID: BWS2253-H1-AQ

Lab Sample ID: 380-214755-1

Date Collected: 05/18/26 11:20

Matrix: Water

Date Received: 05/19/26 09:20

## Method: DoD 6.0 QSM B-24 - PFAS for QSM 6.0, Table B-24

| Analyte                                                  | Result | Qualifier | RL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------------------------------------------------------|--------|-----------|-----|------|---|----------------|----------------|---------|
| Perfluorobutanoic acid (PFBA)                            | <2.9   |           | 2.9 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| Perfluoropentanoic acid (PFPeA)                          | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| Perfluorohexanoic acid (PFHxA)                           | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| Perfluoroheptanoic acid (PFHpA)                          | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| Perfluorooctanoic acid (PFOA)                            | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| Perfluorononanoic acid (PFNA)                            | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| Perfluorodecanoic acid (PFDA)                            | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| Perfluoroundecanoic acid (PFUnA)                         | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| Perfluorododecanoic acid (PFDoA)                         | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| Perfluorotridecanoic acid (PFTriDA)                      | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| Perfluorotetradecanoic acid (PFTeDA)                     | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| Perfluorobutanesulfonic acid (PFBS)                      | <2.9   |           | 2.9 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| Perfluoropentanesulfonic acid (PFPeS)                    | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| Perfluorohexanesulfonic acid (PFHxS)                     | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| Perfluoroheptanesulfonic acid (PFHpS)                    | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| Perfluorooctanesulfonic acid (PFOS)                      | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| Perfluorononanesulfonic acid (PFNS)                      | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| Perfluorodecanesulfonic acid (PFDS)                      | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| Perfluorododecanesulfonic acid (PFDoS)                   | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)      | <2.9   |           | 2.9 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)      | <2.9   |           | 2.9 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)      | <2.9   |           | 2.9 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| Perfluorooctanesulfonamide (PFOSA)                       | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| N-methylperfluorooctane sulfonamide (NMeFOSA)            | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| N-ethylperfluorooctane sulfonamide (NEtFOSA)             | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)  | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)     | <7.3   |           | 7.3 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)      | <7.3   |           | 7.3 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)           | <1.1   |           | 1.1 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA)              | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| Perfluoro-4-methoxybutanoic acid (PFMBA)                 | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)               | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| Perfluoro-3-methoxypropanoic acid (PFMPA)                | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid       | <1.5   |           | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |

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# Client Sample Results

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-214755-1  
SDG: Site H1 PFAS 1633

Client Sample ID: BWS2253-H1-AQ

Lab Sample ID: 380-214755-1

Date Collected: 05/18/26 11:20

Matrix: Water

Date Received: 05/19/26 09:20

## Method: DoD 6.0 QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

| Analyte                                                 | Result    | Qualifier | RL       | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------------------------|-----------|-----------|----------|------|---|----------------|----------------|---------|
| 11-Chloroeicosafluoro-3-oxaundecan<br>e-1-sulfonic acid | <1.5      |           | 1.5      | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| Perfluoro (2-ethoxyethane) sulfonic<br>acid (PFEEA)     | <1.5      |           | 1.5      | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 3-Perfluoropropylpropanoic acid (3:3<br>FTCA)           | <2.9      |           | 2.9      | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 3-Perfluoropentylpropanoic acid (5:3<br>FTCA)           | <7.3      |           | 7.3      | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 3-Perfluoroheptylpropanoic acid (7:3<br>FTCA)           | <7.3      |           | 7.3      | ng/L |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| Isotope Dilution                                        | %Recovery | Qualifier | Limits   |      |   | Prepared       | Analyzed       | Dil Fac |
| 13C4 PFBA                                               | 98.2      |           | 5 - 130  |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 13C5 PFPeA                                              | 106       |           | 40 - 130 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 13C5 PFHxA                                              | 104       |           | 40 - 130 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 13C4 PFHpA                                              | 99.4      |           | 40 - 130 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 13C8 PFOA                                               | 107       |           | 40 - 130 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 13C9 PFNA                                               | 105       |           | 40 - 130 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 13C6 PFDA                                               | 94.6      |           | 40 - 130 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 13C7 PFUnA                                              | 75.3      |           | 30 - 130 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 13C2 PFDoA                                              | 67.6      |           | 10 - 130 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 13C2 PFTeDA                                             | 59.7      |           | 10 - 130 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 13C6 PFTriDA                                            | 56.8      |           | 20 - 150 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 13C3 PFBS                                               | 95.0      |           | 40 - 135 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 13C3 PFHxS                                              | 98.6      |           | 40 - 130 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 13C8 PFOS                                               | 103       |           | 40 - 130 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 13C8 PFOSA                                              | 84.6      |           | 40 - 130 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| d3-NMeFOSAA                                             | 84.4      |           | 40 - 170 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| d5-NEtFOSAA                                             | 76.0      |           | 25 - 135 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 13C2 4:2 FTS                                            | 91.9      |           | 40 - 200 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 13C2 6:2 FTS                                            | 91.9      |           | 40 - 200 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 13C2 8:2 FTS                                            | 92.9      |           | 40 - 300 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 13C3 HFPO-DA                                            | 113       |           | 40 - 130 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| d7-N-MeFOSE-M                                           | 58.9      |           | 10 - 130 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| d9-N-EtFOSE-M                                           | 55.7      |           | 10 - 130 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| d5-NEtPFOSA                                             | 56.1      |           | 10 - 130 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| d3-NMePFOSA                                             | 55.5      |           | 10 - 130 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 13C3-3:3 FTCA                                           | 107       |           | 20 - 150 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |
| 13C3-5:3 FTCA                                           | 99.0      |           | 20 - 150 |      |   | 05/21/26 04:58 | 05/22/26 14:54 | 1       |

## Action Limit Summary

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-214755-1  
SDG: Site H1 PFAS 1633

Client Sample ID: BWS2253-H1-AQ

Lab Sample ID: 380-214755-1

### Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

| Analyte                                        | Result | Qualifier | Unit | EPAMCL | RL  | Method   | Prep Type |
|------------------------------------------------|--------|-----------|------|--------|-----|----------|-----------|
|                                                |        |           |      | Limit  |     |          |           |
| Perfluorooctanoic acid (PFOA)                  | <1.5   |           | ng/L | 4      | 1.5 | QSM B-24 | Total/NA  |
| Perfluorononanoic acid (PFNA)                  | <1.5   |           | ng/L | 10     | 1.5 | QSM B-24 | Total/NA  |
| Perfluorohexanesulfonic acid (PFHxS)           | <1.5   |           | ng/L | 10     | 1.5 | QSM B-24 | Total/NA  |
| Perfluorooctanesulfonic acid (PFOS)            | <1.5   |           | ng/L | 4      | 1.5 | QSM B-24 | Total/NA  |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA) | <1.1   |           | ng/L | 10     | 1.1 | QSM B-24 | Total/NA  |

# Isotope Dilution Summary

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-214755-1  
SDG: Site H1 PFAS 1633

## Method: QSM B-24 - PFAS for QSM 6.0, Table B-24

Matrix: Water

Prep Type: Total/NA

|                     |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                        |                        |                     |                    |                    |                    |                     |
|---------------------|------------------------|-------------------------------------------------------|------------------------|------------------------|---------------------|--------------------|--------------------|--------------------|---------------------|
| Lab Sample ID       | Client Sample ID       | PFBA<br>(5-130)                                       | PFPeA<br>(40-130)      | 13C5PHA<br>(40-130)    | C4PFHA<br>(40-130)  | C8PFOA<br>(40-130) | C9PFNA<br>(40-130) | C6PFDA<br>(40-130) | 13C7PUA<br>(30-130) |
| 380-214755-1        | BWS2253-H1-AQ          | 98.2                                                  | 106                    | 104                    | 99.4                | 107                | 105                | 94.6               | 75.3                |
| LCS 320-917911/3-A  | Lab Control Sample     | 93.9                                                  | 98.3                   | 93.7                   | 90.1                | 102                | 97.1               | 100                | 97.3                |
| LCSD 320-917911/4-A | Lab Control Sample Dup | 98.8                                                  | 103                    | 98.5                   | 98.6                | 97.4               | 101                | 90.0               | 79.3                |
| LLCS 320-917911/2-A | Lab Control Sample     | 98.7                                                  | 102                    | 92.8                   | 87.7                | 104                | 95.3               | 98.3               | 94.3                |
| MB 320-917911/1-A   | Method Blank           | 90.2                                                  | 96.5                   | 96.6                   | 94.1                | 101                | 94.2               | 96.2               | 84.4                |
|                     |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                        |                        |                     |                    |                    |                    |                     |
| Lab Sample ID       | Client Sample ID       | PFDaA<br>(10-130)                                     | PFTDA<br>(10-130)      | C6PFTTrDA<br>(20-150)  | C3PFBS<br>(40-135)  | C3PFHS<br>(40-130) | C8PFOS<br>(40-130) | PFOSA<br>(40-130)  | d3NMFOS<br>(40-170) |
| 380-214755-1        | BWS2253-H1-AQ          | 67.6                                                  | 59.7                   | 56.8                   | 95.0                | 98.6               | 103                | 84.6               | 84.4                |
| LCS 320-917911/3-A  | Lab Control Sample     | 83.5                                                  | 70.7                   | 77.2                   | 93.5                | 93.1               | 108                | 74.6               | 85.3                |
| LCSD 320-917911/4-A | Lab Control Sample Dup | 61.2                                                  | 57.9                   | 56.0                   | 88.6                | 90.4               | 97.3               | 66.6               | 70.6                |
| LLCS 320-917911/2-A | Lab Control Sample     | 81.6                                                  | 65.4                   | 75.5                   | 96.2                | 96.0               | 107                | 67.5               | 89.0                |
| MB 320-917911/1-A   | Method Blank           | 78.9                                                  | 65.5                   | 64.9                   | 94.3                | 94.0               | 102                | 62.5               | 79.5                |
|                     |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                        |                        |                     |                    |                    |                    |                     |
| Lab Sample ID       | Client Sample ID       | d5NEFOS<br>(25-135)                                   | M242FTS<br>(40-200)    | M262FTS<br>(40-200)    | M282FTS<br>(40-300) | HFPODA<br>(40-130) | NMFM<br>(10-130)   | NEFM<br>(10-130)   | d5NPFSA<br>(10-130) |
| 380-214755-1        | BWS2253-H1-AQ          | 76.0                                                  | 91.9                   | 91.9                   | 92.9                | 113                | 58.9               | 55.7               | 56.1                |
| LCS 320-917911/3-A  | Lab Control Sample     | 87.8                                                  | 83.7                   | 89.2                   | 100                 | 105                | 82.5               | 79.0               | 70.4                |
| LCSD 320-917911/4-A | Lab Control Sample Dup | 65.4                                                  | 86.4                   | 85.9                   | 85.9                | 111                | 66.8               | 65.9               | 55.7                |
| LLCS 320-917911/2-A | Lab Control Sample     | 82.4                                                  | 84.3                   | 93.0                   | 101                 | 103                | 70.2               | 68.3               | 55.5                |
| MB 320-917911/1-A   | Method Blank           | 73.7                                                  | 85.4                   | 89.6                   | 96.3                | 105                | 62.2               | 60.5               | 60.3                |
|                     |                        | Percent Isotope Dilution Recovery (Acceptance Limits) |                        |                        |                     |                    |                    |                    |                     |
| Lab Sample ID       | Client Sample ID       | d3NMFSA<br>(10-130)                                   | 3:3:3 FTC/<br>(20-150) | 3:5:3 FTC/<br>(20-150) |                     |                    |                    |                    |                     |
| 380-214755-1        | BWS2253-H1-AQ          | 55.5                                                  | 107                    | 99.0                   |                     |                    |                    |                    |                     |
| LCS 320-917911/3-A  | Lab Control Sample     | 66.0                                                  | 95.7                   | 92.4                   |                     |                    |                    |                    |                     |
| LCSD 320-917911/4-A | Lab Control Sample Dup | 52.1                                                  | 104                    | 99.1                   |                     |                    |                    |                    |                     |
| LLCS 320-917911/2-A | Lab Control Sample     | 52.5                                                  | 102                    | 96.2                   |                     |                    |                    |                    |                     |
| MB 320-917911/1-A   | Method Blank           | 58.0                                                  | 104                    | 93.1                   |                     |                    |                    |                    |                     |

### Surrogate Legend

PFBA = 13C4 PFBA  
PFPeA = 13C5 PFPeA  
13C5PHA = 13C5 PFHxA  
C4PFHA = 13C4 PFHpA  
C8PFOA = 13C8 PFOA  
C9PFNA = 13C9 PFNA  
C6PFDA = 13C6 PFDA  
13C7PUA = 13C7 PFUnA  
PFDaA = 13C2 PFDaA  
PFTDA = 13C2 PFTeDA  
C6PFTTrDA = 13C6 PFTTrDA  
C3PFBS = 13C3 PFBS  
C3PFHS = 13C3 PFHxS  
C8PFOS = 13C8 PFOS  
PFOSA = 13C8 PFOSA  
d3NMFOS = d3-NMeFOSAA  
d5NEFOS = d5-NEtFOSAA  
M242FTS = 13C2 4:2 FTS

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Isotope Dilution Summary

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident  
M262FTS = 13C2 6:2 FTS  
M282FTS = 13C2 8:2 FTS  
HFPODA = 13C3 HFPO-DA  
NMFM = d7-N-MeFOSE-M  
NEFM = d9-N-EtFOSE-M  
d5NPFSA = d5-NEtPFOSA  
d3NMFSA = d3-NMePFOSA  
C3-3:3 FTCA = 13C3-3:3 FTCA  
C3-5:3 FTCA = 13C3-5:3 FTCA

Job ID: 380-214755-1  
SDG: Site H1 PFAS 1633

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# QC Sample Results

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-214755-1  
SDG: Site H1 PFAS 1633

## Method: QSM B-24 - PFAS for QSM 6.0, Table B-24

Lab Sample ID: MB 320-917911/1-A

Matrix: Water

Analysis Batch: 918241

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 917911

| Analyte                                                  | MB<br>Result | MB<br>Qualifier | RL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|----------------------------------------------------------|--------------|-----------------|-----|------|---|----------------|----------------|---------|
| Perfluorobutanoic acid (PFBA)                            | <4.0         |                 | 4.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| Perfluoropentanoic acid (PFPeA)                          | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| Perfluorohexanoic acid (PFHxA)                           | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| Perfluoroheptanoic acid (PFHpA)                          | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| Perfluorooctanoic acid (PFOA)                            | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| Perfluorononanoic acid (PFNA)                            | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| Perfluorodecanoic acid (PFDA)                            | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| Perfluoroundecanoic acid (PFUnA)                         | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| Perfluorododecanoic acid (PFDoA)                         | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| Perfluorotridecanoic acid (PFTriDA)                      | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| Perfluorotetradecanoic acid (PFTeDA)                     | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| Perfluorobutanesulfonic acid (PFBS)                      | <4.0         |                 | 4.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| Perfluoropentanesulfonic acid (PFPeS)                    | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| Perfluorohexanesulfonic acid (PFHxS)                     | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| Perfluoroheptanesulfonic acid (PFHpS)                    | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| Perfluorooctanesulfonic acid (PFOS)                      | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| Perfluorononanesulfonic acid (PFNS)                      | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| Perfluorodecanesulfonic acid (PFDS)                      | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| Perfluorododecanesulfonic acid (PFDoS)                   | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)      | <4.0         |                 | 4.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)      | <4.0         |                 | 4.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)      | <4.0         |                 | 4.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| Perfluorooctanesulfonamide (PFOSA)                       | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| N-methylperfluorooctane sulfonamide (NMeFOSA)            | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| N-ethylperfluorooctane sulfonamide (NEtFOSA)             | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)  | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)     | <10          |                 | 10  | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)      | <10          |                 | 10  | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)           | <1.5         |                 | 1.5 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 4,8-Dioxo-3H-perfluorononanoic acid (ADONA)              | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| Perfluoro-4-methoxybutanoic acid (PFMBA)                 | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| Nonfluoro-3,6-dioxahexanoic acid (NFDHA)                 | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| Perfluoro-3-methoxypropanoic acid (PFMPA)                | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid       | <2.0         |                 | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |

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# QC Sample Results

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-214755-1  
SDG: Site H1 PFAS 1633

## Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: MB 320-917911/1-A

Matrix: Water

Analysis Batch: 918241

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 917911

| Analyte                                                 | MB Result | MB Qualifier | RL  | Unit | D | Prepared       | Analyzed       | Dil Fac |
|---------------------------------------------------------|-----------|--------------|-----|------|---|----------------|----------------|---------|
| 11-Chloroeicosafluoro-3-oxaundecan<br>e-1-sulfonic acid | <2.0      |              | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| Perfluoro (2-ethoxyethane) sulfonic<br>acid (PFEEESA)   | <2.0      |              | 2.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 3-Perfluoropropylpropanoic acid (3:3<br>FTCA)           | <4.0      |              | 4.0 | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 3-Perfluoropentylpropanoic acid (5:3<br>FTCA)           | <10       |              | 10  | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 3-Perfluoroheptylpropanoic acid (7:3<br>FTCA)           | <10       |              | 10  | ng/L |   | 05/21/26 04:58 | 05/22/26 12:26 | 1       |

| Isotope Dilution | MB %Recovery | MB Qualifier | Limits   | Prepared       | Analyzed       | Dil Fac |
|------------------|--------------|--------------|----------|----------------|----------------|---------|
| 13C4 PFBA        | 90.2         |              | 5 - 130  | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 13C5 PFPeA       | 96.5         |              | 40 - 130 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 13C5 PFHxA       | 96.6         |              | 40 - 130 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 13C4 PFHpA       | 94.1         |              | 40 - 130 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 13C8 PFOA        | 101          |              | 40 - 130 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 13C9 PFNA        | 94.2         |              | 40 - 130 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 13C6 PFDA        | 96.2         |              | 40 - 130 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 13C7 PFUnA       | 84.4         |              | 30 - 130 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 13C2 PFDoA       | 78.9         |              | 10 - 130 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 13C2 PFTeDA      | 65.5         |              | 10 - 130 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 13C6 PFTrDA      | 64.9         |              | 20 - 150 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 13C3 PFBS        | 94.3         |              | 40 - 135 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 13C3 PFHxS       | 94.0         |              | 40 - 130 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 13C8 PFOS        | 102          |              | 40 - 130 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 13C8 PFOSA       | 62.5         |              | 40 - 130 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| d3-NMeFOSAA      | 79.5         |              | 40 - 170 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| d5-NEtFOSAA      | 73.7         |              | 25 - 135 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 13C2 4:2 FTS     | 85.4         |              | 40 - 200 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 13C2 6:2 FTS     | 89.6         |              | 40 - 200 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 13C2 8:2 FTS     | 96.3         |              | 40 - 300 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 13C3 HFPO-DA     | 105          |              | 40 - 130 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| d7-N-MeFOSE-M    | 62.2         |              | 10 - 130 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| d9-N-EtFOSE-M    | 60.5         |              | 10 - 130 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| d5-NEtPFOSA      | 60.3         |              | 10 - 130 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| d3-NMePFOSA      | 58.0         |              | 10 - 130 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 13C3-3:3 FTCA    | 104          |              | 20 - 150 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |
| 13C3-5:3 FTCA    | 93.1         |              | 20 - 150 | 05/21/26 04:58 | 05/22/26 12:26 | 1       |

Lab Sample ID: LCS 320-917911/3-A

Matrix: Water

Analysis Batch: 918241

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 917911

| Analyte                         | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------------------------------|-------------|------------|---------------|------|---|------|-------------|
| Perfluorobutanoic acid (PFBA)   | 80.0        | 83.6       |               | ng/L |   | 104  | 70 - 140    |
| Perfluoropentanoic acid (PFPeA) | 40.0        | 37.0       |               | ng/L |   | 92   | 65 - 135    |
| Perfluorohexanoic acid (PFHxA)  | 40.0        | 41.0       |               | ng/L |   | 103  | 70 - 145    |
| Perfluoroheptanoic acid (PFHpA) | 40.0        | 45.3       |               | ng/L |   | 113  | 70 - 150    |
| Perfluorooctanoic acid (PFOA)   | 40.0        | 37.9       |               | ng/L |   | 95   | 70 - 150    |

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# QC Sample Results

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-214755-1  
SDG: Site H1 PFAS 1633

## Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: LCS 320-917911/3-A

Matrix: Water

Analysis Batch: 918241

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 917911

| Analyte                                                  | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------------------------------------------------|-------------|------------|---------------|------|---|------|-------------|
| Perfluorononanoic acid (PFNA)                            | 40.0        | 45.9       |               | ng/L |   | 115  | 70 - 150    |
| Perfluorodecanoic acid (PFDA)                            | 40.0        | 41.4       |               | ng/L |   | 103  | 70 - 140    |
| Perfluoroundecanoic acid (PFUnA)                         | 40.0        | 38.6       |               | ng/L |   | 97   | 70 - 145    |
| Perfluorododecanoic acid (PFDoA)                         | 40.0        | 41.1       |               | ng/L |   | 103  | 70 - 140    |
| Perfluorotridecanoic acid (PFTrDA)                       | 40.0        | 40.9       |               | ng/L |   | 102  | 65 - 140    |
| Perfluorotetradecanoic acid (PFTeDA)                     | 40.0        | 43.3       |               | ng/L |   | 108  | 60 - 140    |
| Perfluorobutanesulfonic acid (PFBS)                      | 35.5        | 39.6       |               | ng/L |   | 111  | 60 - 145    |
| Perfluoropentanesulfonic acid (PFPeS)                    | 37.6        | 39.7       |               | ng/L |   | 106  | 65 - 140    |
| Perfluorohexanesulfonic acid (PFHxS)                     | 36.5        | 36.1       |               | ng/L |   | 99   | 65 - 145    |
| Perfluoroheptanesulfonic acid (PFHpS)                    | 38.2        | 37.9       |               | ng/L |   | 99   | 70 - 150    |
| Perfluorooctanesulfonic acid (PFOS)                      | 37.2        | 39.5       |               | ng/L |   | 106  | 55 - 150    |
| Perfluorononanesulfonic acid (PFNS)                      | 38.5        | 36.3       |               | ng/L |   | 94   | 65 - 145    |
| Perfluorodecanesulfonic acid (PFDS)                      | 38.6        | 33.0       |               | ng/L |   | 86   | 60 - 145    |
| Perfluorododecanesulfonic acid (PFDoS)                   | 38.8        | 26.0       |               | ng/L |   | 67   | 50 - 145    |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)      | 75.0        | 77.9       |               | ng/L |   | 104  | 70 - 145    |
| 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)      | 76.2        | 79.2       |               | ng/L |   | 104  | 65 - 155    |
| 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)      | 76.8        | 74.7       |               | ng/L |   | 97   | 60 - 150    |
| Perfluorooctanesulfonamide (PFOSA)                       | 40.0        | 44.5       |               | ng/L |   | 111  | 70 - 145    |
| N-methylperfluorooctane sulfonamide (NMeFOSA)            | 40.0        | 42.7       |               | ng/L |   | 107  | 60 - 150    |
| N-ethylperfluorooctane sulfonamide (NEtFOSA)             | 40.0        | 43.6       |               | ng/L |   | 109  | 65 - 145    |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 40.0        | 42.5       |               | ng/L |   | 106  | 50 - 140    |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)  | 40.0        | 39.2       |               | ng/L |   | 98   | 70 - 145    |
| N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)     | 200         | 210        |               | ng/L |   | 105  | 70 - 145    |
| N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)      | 200         | 206        |               | ng/L |   | 103  | 70 - 135    |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)           | 30.0        | 33.6       |               | ng/L |   | 112  | 70 - 140    |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA)              | 37.8        | 35.4       |               | ng/L |   | 94   | 65 - 145    |
| Perfluoro-4-methoxybutanoic acid (PFMBA)                 | 40.0        | 42.4       |               | ng/L |   | 106  | 60 - 150    |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)               | 40.0        | 42.0       |               | ng/L |   | 105  | 50 - 150    |

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# QC Sample Results

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-214755-1  
SDG: Site H1 PFAS 1633

## Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: LCS 320-917911/3-A

Matrix: Water

Analysis Batch: 918241

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 917911

| Analyte                                             | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------------------------------------------------|-------------|------------|---------------|------|---|------|-------------|
| Perfluoro-3-methoxypropanoic acid (PFMPA)           | 40.0        | 42.0       |               | ng/L |   | 105  | 55 - 140    |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid  | 37.4        | 35.1       |               | ng/L |   | 94   | 70 - 155    |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid | 37.8        | 32.5       |               | ng/L |   | 86   | 55 - 160    |
| Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)   | 35.7        | 37.1       |               | ng/L |   | 104  | 70 - 140    |
| 3-Perfluoropropylpropanoic acid (3:3 FTCA)          | 80.0        | 79.4       |               | ng/L |   | 99   | 65 - 130    |
| 3-Perfluoropentylpropanoic acid (5:3 FTCA)          | 200         | 204        |               | ng/L |   | 102  | 70 - 135    |
| 3-Perfluoroheptylpropanoic acid (7:3 FTCA)          | 200         | 180        |               | ng/L |   | 90   | 50 - 145    |

| Isotope Dilution | LCS %Recovery | LCS Qualifier | Limits   |
|------------------|---------------|---------------|----------|
| 13C4 PFBA        | 93.9          |               | 5 - 130  |
| 13C5 PFPeA       | 98.3          |               | 40 - 130 |
| 13C5 PFHxA       | 93.7          |               | 40 - 130 |
| 13C4 PFHpA       | 90.1          |               | 40 - 130 |
| 13C8 PFOA        | 102           |               | 40 - 130 |
| 13C9 PFNA        | 97.1          |               | 40 - 130 |
| 13C6 PFDA        | 100           |               | 40 - 130 |
| 13C7 PFUnA       | 97.3          |               | 30 - 130 |
| 13C2 PFDoA       | 83.5          |               | 10 - 130 |
| 13C2 PFTeDA      | 70.7          |               | 10 - 130 |
| 13C6 PFTrDA      | 77.2          |               | 20 - 150 |
| 13C3 PFBS        | 93.5          |               | 40 - 135 |
| 13C3 PFHxS       | 93.1          |               | 40 - 130 |
| 13C8 PFOS        | 108           |               | 40 - 130 |
| 13C8 PFOSA       | 74.6          |               | 40 - 130 |
| d3-NMeFOSAA      | 85.3          |               | 40 - 170 |
| d5-NEtFOSAA      | 87.8          |               | 25 - 135 |
| 13C2 4:2 FTS     | 83.7          |               | 40 - 200 |
| 13C2 6:2 FTS     | 89.2          |               | 40 - 200 |
| 13C2 8:2 FTS     | 100           |               | 40 - 300 |
| 13C3 HFPO-DA     | 105           |               | 40 - 130 |
| d7-N-MeFOSE-M    | 82.5          |               | 10 - 130 |
| d9-N-EtFOSE-M    | 79.0          |               | 10 - 130 |
| d5-NEtPFOSA      | 70.4          |               | 10 - 130 |
| d3-NMePFOSA      | 66.0          |               | 10 - 130 |
| 13C3-3:3 FTCA    | 95.7          |               | 20 - 150 |
| 13C3-5:3 FTCA    | 92.4          |               | 20 - 150 |

Lab Sample ID: LCSD 320-917911/4-A

Matrix: Water

Analysis Batch: 918241

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 917911

| Analyte                         | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | Limit |
|---------------------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-------|
| Perfluorobutanoic acid (PFBA)   | 80.0        | 80.2        |                | ng/L |   | 100  | 70 - 140    | 4   | 30    |
| Perfluoropentanoic acid (PFPeA) | 40.0        | 39.9        |                | ng/L |   | 100  | 65 - 135    | 8   | 30    |

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# QC Sample Results

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-214755-1  
SDG: Site H1 PFAS 1633

## Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: LCSD 320-917911/4-A

Matrix: Water

Analysis Batch: 918241

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 917911

| Analyte                                                  | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|----------------------------------------------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| Perfluorohexanoic acid (PFHxA)                           | 40.0        | 41.2        |                | ng/L |   | 103  | 70 - 145    | 0   | 30        |
| Perfluoroheptanoic acid (PFHpA)                          | 40.0        | 45.0        |                | ng/L |   | 112  | 70 - 150    | 1   | 30        |
| Perfluorooctanoic acid (PFOA)                            | 40.0        | 40.5        |                | ng/L |   | 101  | 70 - 150    | 7   | 30        |
| Perfluorononanoic acid (PFNA)                            | 40.0        | 40.6        |                | ng/L |   | 101  | 70 - 150    | 12  | 30        |
| Perfluorodecanoic acid (PFDA)                            | 40.0        | 43.0        |                | ng/L |   | 108  | 70 - 140    | 4   | 30        |
| Perfluoroundecanoic acid (PFUnA)                         | 40.0        | 40.1        |                | ng/L |   | 100  | 70 - 145    | 4   | 30        |
| Perfluorododecanoic acid (PFDoA)                         | 40.0        | 39.8        |                | ng/L |   | 100  | 70 - 140    | 3   | 30        |
| Perfluorotridecanoic acid (PFTrDA)                       | 40.0        | 41.5        |                | ng/L |   | 104  | 65 - 140    | 2   | 30        |
| Perfluorotetradecanoic acid (PFTeDA)                     | 40.0        | 40.9        |                | ng/L |   | 102  | 60 - 140    | 6   | 30        |
| Perfluorobutanesulfonic acid (PFBS)                      | 35.5        | 40.4        |                | ng/L |   | 114  | 60 - 145    | 2   | 30        |
| Perfluoropentanesulfonic acid (PFPeS)                    | 37.6        | 38.4        |                | ng/L |   | 102  | 65 - 140    | 3   | 30        |
| Perfluorohexanesulfonic acid (PFHxS)                     | 36.5        | 35.7        |                | ng/L |   | 98   | 65 - 145    | 1   | 30        |
| Perfluoroheptanesulfonic acid (PFHpS)                    | 38.2        | 39.4        |                | ng/L |   | 103  | 70 - 150    | 4   | 30        |
| Perfluorooctanesulfonic acid (PFOS)                      | 37.2        | 42.1        |                | ng/L |   | 113  | 55 - 150    | 6   | 30        |
| Perfluorononanesulfonic acid (PFNS)                      | 38.5        | 34.6        |                | ng/L |   | 90   | 65 - 145    | 5   | 30        |
| Perfluorodecanesulfonic acid (PFDS)                      | 38.6        | 27.0        |                | ng/L |   | 70   | 60 - 145    | 20  | 30        |
| Perfluorododecanesulfonic acid (PFDoS)                   | 38.8        | 21.8        |                | ng/L |   | 56   | 50 - 145    | 18  | 30        |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)      | 75.0        | 72.8        |                | ng/L |   | 97   | 70 - 145    | 7   | 30        |
| 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)      | 76.2        | 83.6        |                | ng/L |   | 110  | 65 - 155    | 5   | 30        |
| 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)      | 76.8        | 76.2        |                | ng/L |   | 99   | 60 - 150    | 2   | 30        |
| Perfluorooctanesulfonamide (PFOSA)                       | 40.0        | 43.2        |                | ng/L |   | 108  | 70 - 145    | 3   | 30        |
| N-methylperfluorooctane sulfonamide (NMeFOSA)            | 40.0        | 43.2        |                | ng/L |   | 108  | 60 - 150    | 1   | 30        |
| N-ethylperfluorooctane sulfonamide (NEtFOSA)             | 40.0        | 44.2        |                | ng/L |   | 111  | 65 - 145    | 1   | 30        |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 40.0        | 43.8        |                | ng/L |   | 109  | 50 - 140    | 3   | 30        |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)  | 40.0        | 40.6        |                | ng/L |   | 102  | 70 - 145    | 3   | 30        |
| N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)     | 200         | 209         |                | ng/L |   | 104  | 70 - 145    | 1   | 30        |
| N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)      | 200         | 201         |                | ng/L |   | 101  | 70 - 135    | 2   | 30        |
| Hexafluoropropylene Oxide                                | 30.0        | 32.0        |                | ng/L |   | 107  | 70 - 140    | 5   | 30        |
| Dimer Acid (HFPO-DA)                                     |             |             |                |      |   |      |             |     |           |
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA)              | 37.8        | 34.0        |                | ng/L |   | 90   | 65 - 145    | 4   | 30        |
| Perfluoro-4-methoxybutanoic acid (PFMBA)                 | 40.0        | 40.6        |                | ng/L |   | 101  | 60 - 150    | 4   | 30        |

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# QC Sample Results

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-214755-1  
SDG: Site H1 PFAS 1633

## Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: LCSD 320-917911/4-A

Matrix: Water

Analysis Batch: 918241

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 917911

| Analyte                                             | Spike Added    | LCSD Result    | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|-----------------------------------------------------|----------------|----------------|----------------|------|---|------|-------------|-----|-----------|
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)          | 40.0           | 41.5           |                | ng/L |   | 104  | 50 - 150    | 1   | 30        |
| Perfluoro-3-methoxypropanoic acid (PFMPA)           | 40.0           | 40.2           |                | ng/L |   | 101  | 55 - 140    | 4   | 30        |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid  | 37.4           | 37.4           |                | ng/L |   | 100  | 70 - 155    | 6   | 30        |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid | 37.8           | 25.9           |                | ng/L |   | 69   | 55 - 160    | 23  | 30        |
| Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)  | 35.7           | 36.1           |                | ng/L |   | 101  | 70 - 140    | 3   | 30        |
| 3-Perfluoropropylpropanoic acid (3:3 FTCA)          | 80.0           | 77.7           |                | ng/L |   | 97   | 65 - 130    | 2   | 30        |
| 3-Perfluoropentylpropanoic acid (5:3 FTCA)          | 200            | 207            |                | ng/L |   | 103  | 70 - 135    | 1   | 30        |
| 3-Perfluoroheptylpropanoic acid (7:3 FTCA)          | 200            | 172            |                | ng/L |   | 86   | 50 - 145    | 5   | 30        |
| Isotope Dilution                                    | LCSD %Recovery | LCSD Qualifier | LCSD Limits    |      |   |      |             |     |           |
| 13C4 PFBA                                           | 98.8           |                | 5 - 130        |      |   |      |             |     |           |
| 13C5 PFPeA                                          | 103            |                | 40 - 130       |      |   |      |             |     |           |
| 13C5 PFHxA                                          | 98.5           |                | 40 - 130       |      |   |      |             |     |           |
| 13C4 PFHpA                                          | 98.6           |                | 40 - 130       |      |   |      |             |     |           |
| 13C8 PFOA                                           | 97.4           |                | 40 - 130       |      |   |      |             |     |           |
| 13C9 PFNA                                           | 101            |                | 40 - 130       |      |   |      |             |     |           |
| 13C6 PFDA                                           | 90.0           |                | 40 - 130       |      |   |      |             |     |           |
| 13C7 PFUnA                                          | 79.3           |                | 30 - 130       |      |   |      |             |     |           |
| 13C2 PFDoA                                          | 61.2           |                | 10 - 130       |      |   |      |             |     |           |
| 13C2 PFTeDA                                         | 57.9           |                | 10 - 130       |      |   |      |             |     |           |
| 13C6 PFTrDA                                         | 56.0           |                | 20 - 150       |      |   |      |             |     |           |
| 13C3 PFBS                                           | 88.6           |                | 40 - 135       |      |   |      |             |     |           |
| 13C3 PFHxS                                          | 90.4           |                | 40 - 130       |      |   |      |             |     |           |
| 13C8 PFOS                                           | 97.3           |                | 40 - 130       |      |   |      |             |     |           |
| 13C8 PFOSA                                          | 66.6           |                | 40 - 130       |      |   |      |             |     |           |
| d3-NMeFOSAA                                         | 70.6           |                | 40 - 170       |      |   |      |             |     |           |
| d5-NEtFOSAA                                         | 65.4           |                | 25 - 135       |      |   |      |             |     |           |
| 13C2 4:2 FTS                                        | 86.4           |                | 40 - 200       |      |   |      |             |     |           |
| 13C2 6:2 FTS                                        | 85.9           |                | 40 - 200       |      |   |      |             |     |           |
| 13C2 8:2 FTS                                        | 85.9           |                | 40 - 300       |      |   |      |             |     |           |
| 13C3 HFPO-DA                                        | 111            |                | 40 - 130       |      |   |      |             |     |           |
| d7-N-MeFOSE-M                                       | 66.8           |                | 10 - 130       |      |   |      |             |     |           |
| d9-N-EtFOSE-M                                       | 65.9           |                | 10 - 130       |      |   |      |             |     |           |
| d5-NEtPFOSA                                         | 55.7           |                | 10 - 130       |      |   |      |             |     |           |
| d3-NMePFOSA                                         | 52.1           |                | 10 - 130       |      |   |      |             |     |           |
| 13C3-3:3 FTCA                                       | 104            |                | 20 - 150       |      |   |      |             |     |           |
| 13C3-5:3 FTCA                                       | 99.1           |                | 20 - 150       |      |   |      |             |     |           |

# QC Sample Results

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-214755-1  
SDG: Site H1 PFAS 1633

## Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: LLCS 320-917911/2-A

Matrix: Water

Analysis Batch: 918241

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 917911

| Analyte                                                  | Spike Added | LLCS Result | LLCS Qualifier | Unit | D | %Rec | %Rec Limits |
|----------------------------------------------------------|-------------|-------------|----------------|------|---|------|-------------|
| Perfluorobutanoic acid (PFBA)                            | 8.00        | 7.57        |                | ng/L |   | 95   | 70 - 140    |
| Perfluoropentanoic acid (PFPeA)                          | 4.00        | 3.55        |                | ng/L |   | 89   | 65 - 135    |
| Perfluorohexanoic acid (PFHxA)                           | 4.00        | 4.00        |                | ng/L |   | 100  | 70 - 145    |
| Perfluoroheptanoic acid (PFHpA)                          | 4.00        | 4.63        |                | ng/L |   | 116  | 70 - 150    |
| Perfluorooctanoic acid (PFOA)                            | 4.00        | 3.63        |                | ng/L |   | 91   | 70 - 150    |
| Perfluorononanoic acid (PFNA)                            | 4.00        | 4.61        |                | ng/L |   | 115  | 70 - 150    |
| Perfluorodecanoic acid (PFDA)                            | 4.00        | 3.73        |                | ng/L |   | 93   | 70 - 140    |
| Perfluoroundecanoic acid (PFUnA)                         | 4.00        | 3.59        |                | ng/L |   | 90   | 70 - 145    |
| Perfluorododecanoic acid (PFDoA)                         | 4.00        | 4.11        |                | ng/L |   | 103  | 70 - 140    |
| Perfluorotridecanoic acid (PFTrDA)                       | 4.00        | 3.77        |                | ng/L |   | 94   | 65 - 140    |
| Perfluorotetradecanoic acid (PFTeDA)                     | 4.00        | 4.02        |                | ng/L |   | 101  | 60 - 140    |
| Perfluorobutanesulfonic acid (PFBS)                      | 3.55        | 3.63        | J              | ng/L |   | 102  | 60 - 145    |
| Perfluoropentanesulfonic acid (PFPeS)                    | 3.76        | 3.61        |                | ng/L |   | 96   | 65 - 140    |
| Perfluorohexanesulfonic acid (PFHxS)                     | 3.65        | 3.55        |                | ng/L |   | 97   | 65 - 145    |
| Perfluoroheptanesulfonic acid (PFHpS)                    | 3.82        | 3.48        |                | ng/L |   | 91   | 70 - 150    |
| Perfluorooctanesulfonic acid (PFOS)                      | 3.72        | 3.58        |                | ng/L |   | 96   | 55 - 150    |
| Perfluorononanesulfonic acid (PFNS)                      | 3.85        | 3.59        |                | ng/L |   | 93   | 65 - 145    |
| Perfluorodecanesulfonic acid (PFDS)                      | 3.86        | 3.23        |                | ng/L |   | 84   | 60 - 145    |
| Perfluorododecanesulfonic acid (PFDoS)                   | 3.88        | 2.42        |                | ng/L |   | 62   | 50 - 145    |
| 1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)      | 7.50        | 7.16        |                | ng/L |   | 95   | 70 - 145    |
| 1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)      | 7.62        | 7.59        |                | ng/L |   | 100  | 65 - 155    |
| 1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)      | 7.68        | 7.56        |                | ng/L |   | 98   | 60 - 150    |
| Perfluorooctanesulfonamide (PFOSA)                       | 4.00        | 4.28        |                | ng/L |   | 107  | 70 - 145    |
| N-methylperfluorooctane sulfonamide (NMeFOSA)            | 4.00        | 3.96        |                | ng/L |   | 99   | 60 - 150    |
| N-ethylperfluorooctane sulfonamide (NEtFOSA)             | 4.00        | 4.07        |                | ng/L |   | 102  | 65 - 145    |
| N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA) | 4.00        | 4.05        |                | ng/L |   | 101  | 50 - 140    |
| N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)  | 4.00        | 4.16        |                | ng/L |   | 104  | 70 - 145    |
| N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)     | 20.0        | 19.3        |                | ng/L |   | 97   | 70 - 145    |
| N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)      | 20.0        | 18.8        |                | ng/L |   | 94   | 70 - 135    |
| Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)           | 3.00        | 3.25        |                | ng/L |   | 108  | 70 - 140    |

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# QC Sample Results

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-214755-1  
SDG: Site H1 PFAS 1633

## Method: QSM B-24 - PFAS for QSM 6.0, Table B-24 (Continued)

Lab Sample ID: LLCS 320-917911/2-A

Matrix: Water

Analysis Batch: 918241

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 917911

| Analyte                                             | Spike Added | LLCS Result | LLCS Qualifier | Unit | D | %Rec | %Rec Limits |
|-----------------------------------------------------|-------------|-------------|----------------|------|---|------|-------------|
| 4,8-Dioxa-3H-perfluorononanoic acid (ADONA)         | 3.78        | 3.47        |                | ng/L |   | 92   | 65 - 145    |
| Perfluoro-4-methoxybutanoic acid (PFMBA)            | 4.00        | 3.61        |                | ng/L |   | 90   | 60 - 150    |
| Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)          | 4.00        | 4.28        |                | ng/L |   | 107  | 50 - 150    |
| Perfluoro-3-methoxypropanoic acid (PFMPA)           | 4.00        | 3.93        |                | ng/L |   | 98   | 55 - 140    |
| 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid  | 3.74        | 3.29        |                | ng/L |   | 88   | 70 - 155    |
| 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid | 3.78        | 3.18        |                | ng/L |   | 84   | 55 - 160    |
| Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)   | 3.57        | 3.43        |                | ng/L |   | 96   | 70 - 140    |
| 3-Perfluoropropylpropanoic acid (3:3 FTCA)          | 8.00        | 6.78        |                | ng/L |   | 85   | 65 - 130    |
| 3-Perfluoropentylpropanoic acid (5:3 FTCA)          | 20.0        | 19.2        |                | ng/L |   | 96   | 70 - 135    |
| 3-Perfluoroheptylpropanoic acid (7:3 FTCA)          | 20.0        | 17.1        |                | ng/L |   | 85   | 50 - 145    |

| Isotope Dilution | LLCS      |           | Limits   |
|------------------|-----------|-----------|----------|
|                  | %Recovery | Qualifier |          |
| 13C4 PFBA        | 98.7      |           | 5 - 130  |
| 13C5 PFPeA       | 102       |           | 40 - 130 |
| 13C5 PFHxA       | 92.8      |           | 40 - 130 |
| 13C4 PFHpA       | 87.7      |           | 40 - 130 |
| 13C8 PFOA        | 104       |           | 40 - 130 |
| 13C9 PFNA        | 95.3      |           | 40 - 130 |
| 13C6 PFDA        | 98.3      |           | 40 - 130 |
| 13C7 PFUnA       | 94.3      |           | 30 - 130 |
| 13C2 PFDoA       | 81.6      |           | 10 - 130 |
| 13C2 PFTeDA      | 65.4      |           | 10 - 130 |
| 13C6 PFTrDA      | 75.5      |           | 20 - 150 |
| 13C3 PFBS        | 96.2      |           | 40 - 135 |
| 13C3 PFHxS       | 96.0      |           | 40 - 130 |
| 13C8 PFOS        | 107       |           | 40 - 130 |
| 13C8 PFOSA       | 67.5      |           | 40 - 130 |
| d3-NMeFOSAA      | 89.0      |           | 40 - 170 |
| d5-NEtFOSAA      | 82.4      |           | 25 - 135 |
| 13C2 4:2 FTS     | 84.3      |           | 40 - 200 |
| 13C2 6:2 FTS     | 93.0      |           | 40 - 200 |
| 13C2 8:2 FTS     | 101       |           | 40 - 300 |
| 13C3 HFPO-DA     | 103       |           | 40 - 130 |
| d7-N-MeFOSE-M    | 70.2      |           | 10 - 130 |
| d9-N-EtFOSE-M    | 68.3      |           | 10 - 130 |
| d5-NEtPFOSA      | 55.5      |           | 10 - 130 |
| d3-NMePFOSA      | 52.5      |           | 10 - 130 |
| 13C3-3:3 FTCA    | 102       |           | 20 - 150 |
| 13C3-5:3 FTCA    | 96.2      |           | 20 - 150 |

## QC Association Summary

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-214755-1  
SDG: Site H1 PFAS 1633

### LCMS

#### Prep Batch: 917911

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method | Prep Batch |
|---------------------|------------------------|-----------|--------|--------|------------|
| 380-214755-1        | BWS2253-H1-AQ          | Total/NA  | Water  | 1633   |            |
| MB 320-917911/1-A   | Method Blank           | Total/NA  | Water  | 1633   |            |
| LCS 320-917911/3-A  | Lab Control Sample     | Total/NA  | Water  | 1633   |            |
| LCSD 320-917911/4-A | Lab Control Sample Dup | Total/NA  | Water  | 1633   |            |
| LLCS 320-917911/2-A | Lab Control Sample     | Total/NA  | Water  | 1633   |            |

#### Analysis Batch: 918241

| Lab Sample ID       | Client Sample ID       | Prep Type | Matrix | Method   | Prep Batch |
|---------------------|------------------------|-----------|--------|----------|------------|
| 380-214755-1        | BWS2253-H1-AQ          | Total/NA  | Water  | QSM B-24 | 917911     |
| MB 320-917911/1-A   | Method Blank           | Total/NA  | Water  | QSM B-24 | 917911     |
| LCS 320-917911/3-A  | Lab Control Sample     | Total/NA  | Water  | QSM B-24 | 917911     |
| LCSD 320-917911/4-A | Lab Control Sample Dup | Total/NA  | Water  | QSM B-24 | 917911     |
| LLCS 320-917911/2-A | Lab Control Sample     | Total/NA  | Water  | QSM B-24 | 917911     |

Lab Chronicle

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-214755-1  
SDG: Site H1 PFAS 1633

Client Sample ID: BWS2253-H1-AQ  
Date Collected: 05/18/26 11:20  
Date Received: 05/19/26 09:20

Lab Sample ID: 380-214755-1  
Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab     | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA  | Prep       | 1633         |     |                 | 917911       | JHH     | EET SAC | 05/21/26 04:58       |
| Total/NA  | Analysis   | QSM B-24     |     | 1               | 918241       | S1M     | EET SAC | 05/22/26 14:54       |

Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

## Accreditation/Certification Summary

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-214755-1  
SDG: Site H1 PFAS 1633

### Laboratory: Eurofins Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

| Authority          | Program               | Identification Number | Expiration Date |
|--------------------|-----------------------|-----------------------|-----------------|
| Alaska             | State                 | CA00044               | 06-30-26        |
| Alaska (UST)       | State                 | 17-020                | 02-20-27        |
| ANAB               | Dept. of Defense ELAP | L2468                 | 01-20-27        |
| ANAB               | Dept. of Energy       | L2468.01              | 01-20-27        |
| ANAB               | ISO/IEC 17025         | L2468.03              | 01-20-27        |
| Arizona            | State                 | AZ0708                | 08-11-26        |
| Arkansas DEQ       | State                 | 88-0691               | 05-17-27        |
| California         | State                 | 2897                  | 01-31-28        |
| Colorado           | State                 | CA00044               | 08-31-26        |
| Florida            | NELAP                 | E87570                | 06-30-26        |
| Georgia            | State                 | 4040                  | 01-29-27        |
| Illinois           | NELAP                 | 200060                | 03-31-27        |
| Kansas             | NELAP                 | E-10375               | 10-31-26        |
| Louisiana          | NELAP                 | 01944                 | 06-30-26        |
| Louisiana (All)    | NELAP                 | 01944                 | 06-30-26        |
| Maine              | State                 | CA00004               | 04-14-28        |
| Massachusetts      | State                 | M-CA044               | 06-30-26        |
| Michigan           | State                 | 9947                  | 08-03-26        |
| Minnesota          | NELAP                 | 006-999-474           | 12-31-26        |
| Nevada             | State                 | CA00044               | 07-31-26        |
| New Jersey         | NELAP                 | CA005                 | 06-30-26        |
| New York           | NELAP                 | 11666                 | 04-01-27        |
| Ohio               | State                 | 41252                 | 01-29-27        |
| Oregon             | NELAP                 | 4040                  | 01-29-27        |
| Texas              | NELAP                 | T104704399-23-17      | 05-31-26        |
| US Fish & Wildlife | US Federal Programs   | A22139                | 04-30-27        |
| USDA               | US Federal Programs   | 525-23-59-76739       | 03-01-27        |
| Utah               | NELAP                 | CA000442023-16        | 02-28-27        |
| Virginia           | NELAP                 | 460278                | 09-30-26        |
| Washington         | State                 | C581                  | 05-06-27        |
| West Virginia (DW) | State                 | 9930C                 | 01-31-27        |
| West Virginia DEP  | State                 | 422                   | 07-31-26        |
| Wisconsin          | State                 | 998204680             | 08-31-26        |
| Wyoming            | State Program         | 8TMS-L                | 01-28-19 *      |

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Pomona

## Method Summary

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

Job ID: 380-214755-1  
SDG: Site H1 PFAS 1633

| Method   | Method Description           | Protocol | Laboratory |
|----------|------------------------------|----------|------------|
| QSM B-24 | PFAS for QSM 6.0, Table B-24 | DoD 6.0  | EET SAC    |
| 1633     | Solid-Phase Extraction (SPE) | EPA      | EET SAC    |

### Protocol References:

DoD 6.0 = Department of Defense Quality Systems Manual V6.0  
EPA = US Environmental Protection Agency

### Laboratory References:

EET SAC = Eurofins Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: City & County of Honolulu  
Project/Site: INTERA - Red-Hill-Incident

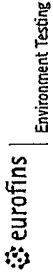
Job ID: 380-214755-1  
SDG: Site H1 PFAS 1633

| Lab Sample ID | Client Sample ID | Matrix | Collected      | Received       | Sample Origin |
|---------------|------------------|--------|----------------|----------------|---------------|
| 380-214755-1  | BWS2253-H1-AQ    | Water  | 05/18/26 11:20 | 05/19/26 09:20 | Hawaii        |

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Eurofins Pomona  
941 Corporate Center Drive  
Pomona, CA 91768-2842  
Phone (626) 386-1100

## Chain of Custody Record



380-214755 COC

|                                                                                                                                                                                                                                                                   |  |                                                                                          |  |                                                                                                                                                                                              |  |                                                                                         |  |                                                                                          |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------|--|
| <b>Client Information</b>                                                                                                                                                                                                                                         |  | Sampler: H. Bentley (806) 321-0683                                                       |  | Lab PM: Lopez, Maria                                                                                                                                                                         |  | Carrier Tracking No(s):                                                                 |  | COC No:                                                                                  |  |
| Client Contact: Mr. Erwin Kawata                                                                                                                                                                                                                                  |  | Phone: 858-205-0730                                                                      |  | E-Mail: Maria.Lopez@et.eurofinsus.com                                                                                                                                                        |  | State of Origin: Hawaii                                                                 |  | Page: Page 1 of 1                                                                        |  |
| Company: City & County of Honolulu                                                                                                                                                                                                                                |  | PWSID:                                                                                   |  | Analysis Requested                                                                                                                                                                           |  | Job #:                                                                                  |  | Preservation Codes:<br>A - HCL<br>N - None                                               |  |
| Address: 630 South Beretania Street                                                                                                                                                                                                                               |  | Due Date Requested:                                                                      |  | TAT Requested (days): Standard                                                                                                                                                               |  | Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |  | Other:                                                                                   |  |
| City: Honolulu                                                                                                                                                                                                                                                    |  | PO #:                                                                                    |  | WO #:                                                                                                                                                                                        |  | Project #:                                                                              |  | Special Instructions/Note:                                                               |  |
| State, Zip: HI, 96843                                                                                                                                                                                                                                             |  | Phone: 808-748-5066                                                                      |  | Email: ekawata@hbws.org                                                                                                                                                                      |  | Project Name: INTERA - Red-Hill-Incident                                                |  | BILL TO POMONA EEA                                                                       |  |
| Site: H1                                                                                                                                                                                                                                                          |  | Sample Date: 5/18/20                                                                     |  | Sample Time: 11:20                                                                                                                                                                           |  | Sample Type: G=grab                                                                     |  | Field Filled Sample (Yes or No)                                                          |  |
| Matrix: (Water, Soil, Sediment, Dredge, etc.)                                                                                                                                                                                                                     |  | Preservation Code: N                                                                     |  | Water                                                                                                                                                                                        |  | 1631 DDB EPA Method 1631 Sd List                                                        |  | TOTAL Number of Containers                                                               |  |
| Sample Identification: BWS253-H1-AQ                                                                                                                                                                                                                               |  | Sample Date: 5/18/20                                                                     |  | Sample Time: 11:20                                                                                                                                                                           |  | Sample Type: G                                                                          |  | Special Instructions/Note:                                                               |  |
| Possible Hazard Identification: <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological |  | Deliverable Requested: I, II, III, IV, Other (specify)                                   |  | Empty Kit Relinquished by: <input type="checkbox"/> Relinquished by: <input checked="" type="checkbox"/> Relinquished by: <input type="checkbox"/> Relinquished by: <input type="checkbox"/> |  | Date: 5/18/20 14:00                                                                     |  | Date/Time: 5/18/20 14:00                                                                 |  |
| Custody Seal No.: 2189912                                                                                                                                                                                                                                         |  | Custody Seal Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |  | Date/Time: 5/18/20 14:00                                                                                                                                                                     |  | Date/Time: 5/18/20 14:00                                                                |  | Date/Time: 5/18/20 14:00                                                                 |  |
| Company: INTERA                                                                                                                                                                                                                                                   |  | Company: INTERA                                                                          |  | Company: INTERA                                                                                                                                                                              |  | Company: INTERA                                                                         |  | Company: INTERA                                                                          |  |
| Date/Time: 5/18/20 14:00                                                                                                                                                                                                                                          |  | Date/Time: 5/18/20 14:00                                                                 |  | Date/Time: 5/18/20 14:00                                                                                                                                                                     |  | Date/Time: 5/18/20 14:00                                                                |  | Date/Time: 5/18/20 14:00                                                                 |  |
| Custody Seal Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                          |  | Custody Seal No.: 2189912                                                                |  | Custody Seal Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                     |  | Custody Seal No.: 2189912                                                               |  | Custody Seal Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |  |
| Custody Seal Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                                                                                          |  | Custody Seal No.: 2189912                                                                |  | Custody Seal Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                                                                                     |  | Custody Seal No.: 2189912                                                               |  | Custody Seal Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |  |

## Chain of Custody Record

[illegible]

|                                                                                                                                                                                                                                                                     |                                        |                           |                                                                        |                    |                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|---------------------------|------------------------------------------------------------------------|--------------------|---------------------------|
| Client Information                                                                                                                                                                                                                                                  |                                        |                           |                                                                        |                    |                           |
| Sampler<br>H Bentley (808) 321-0683                                                                                                                                                                                                                                 | Lab PM<br>Lopez, Maria                 | Carrier Tracking No(s)    | COC No:                                                                |                    |                           |
| Phone:<br>Mr Erwin Kawata                                                                                                                                                                                                                                           | E-Mail:<br>Maria.Lopez@eteuroinsus.com | State of Origin<br>Hawaii | Page:<br>Page 1 of 1                                                   |                    |                           |
| City & County of Honolulu                                                                                                                                                                                                                                           |                                        |                           | PWSID:                                                                 | Analysis Requested |                           |
| Address:<br>5330 South Beretania Street                                                                                                                                                                                                                             |                                        |                           | Due Date Requested                                                     |                    |                           |
| City:<br>Honolulu                                                                                                                                                                                                                                                   |                                        |                           | TAT Requested (days)<br>Standard                                       |                    |                           |
| State, Zip<br>HI, 96843                                                                                                                                                                                                                                             |                                        |                           | Compliance Project: Δ Yes <input checked="" type="checkbox"/> No       |                    |                           |
| Phone:<br>808-748-5066                                                                                                                                                                                                                                              |                                        |                           | PO #:                                                                  |                    |                           |
| Email:<br>kekawata@hbws.org                                                                                                                                                                                                                                         |                                        |                           | WO #:                                                                  |                    |                           |
| Project Name<br>INTERA - Red-Hill-Incident                                                                                                                                                                                                                          |                                        |                           | Project #<br>38000861                                                  |                    |                           |
| Site:<br>H1                                                                                                                                                                                                                                                         |                                        |                           | SSOW#:                                                                 |                    |                           |
| Sample Identification                                                                                                                                                                                                                                               |                                        |                           | Matrix (Water/Solid, Onwaste/Oil, BT-Tissue, A-Air, DW-Drinking Water) |                    |                           |
| BWS2253-H1-AQ                                                                                                                                                                                                                                                       | Sample Date<br>5/18/26                 | Sample Time<br>11 20      | Sample Type<br>(C=Comp, G=grab)                                        | G                  | Preservation Code:<br>N 2 |
| Field Filtered Sample (Yes or No)                                                                                                                                                                                                                                   |                                        |                           | Perform MS/MSD (Yes or No)                                             |                    |                           |
| Total Number of Containers                                                                                                                                                                                                                                          |                                        |                           | Special Instructions/Note:<br>BILL TO POMONA EEA                       |                    |                           |
| Possible Hazard Identification<br><input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological |                                        |                           |                                                                        |                    |                           |
| Deliverable Requested I, II, III IV, Other (specify)                                                                                                                                                                                                                |                                        |                           |                                                                        |                    |                           |
| Empty Kit Relinquished by                                                                                                                                                                                                                                           |                                        |                           |                                                                        |                    |                           |
| Relinquished by<br>H Bentley                                                                                                                                                                                                                                        |                                        |                           |                                                                        |                    |                           |
| Date/Time:<br>5/18/26 14 00                                                                                                                                                                                                                                         | Date:<br>5/18/26 14 00                 |                           |                                                                        |                    |                           |
| Company<br>INTERA                                                                                                                                                                                                                                                   |                                        |                           |                                                                        |                    |                           |
| Received by:<br>DSM                                                                                                                                                                                                                                                 |                                        |                           |                                                                        |                    |                           |
| Date/Time:<br>5/19/26 0920                                                                                                                                                                                                                                          |                                        |                           |                                                                        |                    |                           |
| Company<br>EESEC                                                                                                                                                                                                                                                    |                                        |                           |                                                                        |                    |                           |
| Cooler Temperature(s) °C and Other Remarks:<br>0.7°C                                                                                                                                                                                                                |                                        |                           |                                                                        |                    |                           |

## Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-214755-1  
SDG Number: Site H1 PFAS 1633

**Login Number: 214755**

**List Number: 1**

**Creator: Edrosa, Rey**

**List Source: Eurofins Pomona**

| Question                                                                         | Answer | Comment |
|----------------------------------------------------------------------------------|--------|---------|
| The coolers custody seal, if present, is intact.                                 |        |         |
| Sample custody seals, if present, are intact.                                    |        |         |
| Samples were received on ice.                                                    |        |         |
| Cooler(s) Temperature is acceptable.                                             |        |         |
| Cooler(s) Temperature is recorded.                                               |        |         |
| COC is present.                                                                  |        |         |
| COC is filled out in ink and is legible.                                         |        |         |
| COC is filled out with all pertinent information.                                |        |         |
| There are no discrepancies between the containers received and the COC.          |        |         |
| Samples are received within Holding Time (excluding tests with immediate HTs)    |        |         |
| Sample containers have legible labels.                                           |        |         |
| Containers are not broken or leaking.                                            |        |         |
| Sample collection date/times are provided.                                       |        |         |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs |        |         |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").  |        |         |
| CIO4 headspace requirement met (>50% for CA, >30% for other states).             |        |         |
| Samples do not require splitting or compositing.                                 |        |         |
| Container provided by EEA                                                        |        |         |

## Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-214755-1  
SDG Number: Site H1 PFAS 1633

**Login Number: 214755**

**List Number: 2**

**Creator: Morazzini, Dominic S**

**List Source: Eurofins Sacramento**

**List Creation: 05/19/26 05:42 PM**

| Question                                                                         | Answer | Comment |
|----------------------------------------------------------------------------------|--------|---------|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | True   |         |
| The cooler's custody seal, if present, is intact.                                | True   | 2189912 |
| Sample custody seals, if present, are intact.                                    | N/A    |         |
| The cooler or samples do not appear to have been compromised or tampered with.   | True   |         |
| Samples were received on ice.                                                    | True   |         |
| Cooler Temperature is acceptable.                                                | True   |         |
| Cooler Temperature is recorded.                                                  | True   | 0.7     |
| COC is present.                                                                  | True   |         |
| COC is filled out in ink and legible.                                            | True   |         |
| COC is filled out with all pertinent information.                                | True   |         |
| Is the Field Sampler's name present on COC?                                      | True   |         |
| There are no discrepancies between the containers received and the COC.          | True   |         |
| Samples are received within Holding Time (excluding tests with immediate HTs)    | True   |         |
| Sample containers have legible labels.                                           | True   |         |
| Containers are not broken or leaking.                                            | True   |         |
| Sample collection date/times are provided.                                       | True   |         |
| Appropriate sample containers are used.                                          | True   |         |
| Sample bottles are completely filled.                                            | True   |         |
| Sample Preservation Verified.                                                    | N/A    |         |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True   |         |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").  | True   |         |
| Multiphasic samples are not present.                                             | True   |         |
| Samples do not require splitting or compositing.                                 | True   |         |
| Residual Chlorine Checked.                                                       | N/A    |         |