

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Erwin Kawata
City & County of Honolulu
630 South Beretania Street
Public Service Bldg. Room 310
Honolulu, Hawaii 96843

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JOB DESCRIPTION

INTERA - Red-Hill-Incident
Site H1 PFAS 533/537.1

JOB NUMBER

380-204824-1

Eurofins Pomona

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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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Authorized for release by
Jeannette Gutierrez, Project Manager
Jeannette.Gutierrez@et.eurofinsus.com
Designee for
Maria Lopez, Project Manager
Maria.Lopez@et.eurofinsus.com
(626)386-1100

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Definitions/Glossary

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

Job ID: 380-204824-1
SDG: Site H1 PFAS 533/537.1

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: 380-204824-1

Job ID: 380-204824-1

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Job Narrative 380-204824-1

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 samples were received on 3/25/2026 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.3°C.

PFAS

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: 380-204824-1
SDG: Site H1 PFAS 533/537.1

Client Sample ID: BWS2253-H1-AQ

Lab Sample ID: 380-204824-1

☐ No Detections.

Client Sample ID: BWS2253-H1-FB

Lab Sample ID: 380-204824-2

☐ No Detections.

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: 380-204824-1
SDG: Site H1 PFAS 533/537.1

Client Sample ID: BWS2253-H1-AQ

Lab Sample ID: 380-204824-1

Date Collected: 03/24/26 09:30

Matrix: Water

Date Received: 03/25/26 10:00

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11CI-PF3OUdS)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:16	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9CI-PF3ONS)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:16	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:16	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:16	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:16	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:16	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:16	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:16	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:16	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:16	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:16	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:16	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:16	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:16	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:16	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:16	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:16	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:16	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:16	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:16	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:16	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:16	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:16	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:16	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:16	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	89		50 - 200	03/28/26 07:09	03/29/26 14:16	1
13C6 PFDA	104		50 - 200	03/28/26 07:09	03/29/26 14:16	1
13C5 PFHxA	97		50 - 200	03/28/26 07:09	03/29/26 14:16	1
13C4 PFHpA	104		50 - 200	03/28/26 07:09	03/29/26 14:16	1
13C8 PFOA	108		50 - 200	03/28/26 07:09	03/29/26 14:16	1
13C9 PFNA	102		50 - 200	03/28/26 07:09	03/29/26 14:16	1
13C7 PFUnA	104		50 - 200	03/28/26 07:09	03/29/26 14:16	1
13C2 PFDoA	111		50 - 200	03/28/26 07:09	03/29/26 14:16	1
13C4 PFBA	109		50 - 200	03/28/26 07:09	03/29/26 14:16	1
13C5 PFPeA	117		50 - 200	03/28/26 07:09	03/29/26 14:16	1
13C3 PFBS	115		50 - 200	03/28/26 07:09	03/29/26 14:16	1
13C3 PFHxS	116		50 - 200	03/28/26 07:09	03/29/26 14:16	1
13C8 PFOS	116		50 - 200	03/28/26 07:09	03/29/26 14:16	1

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Client Sample Results

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

Job ID: 380-204824-1
SDG: Site H1 PFAS 533/537.1

Client Sample ID: BWS2253-H1-AQ

Lab Sample ID: 380-204824-1

Date Collected: 03/24/26 09:30

Matrix: Water

Date Received: 03/25/26 10:00

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2-4:2-FTS	143		50 - 200	03/28/26 07:09	03/29/26 14:16	1
13C2-6:2-FTS	133		50 - 200	03/28/26 07:09	03/29/26 14:16	1
13C2-8:2-FTS	140		50 - 200	03/28/26 07:09	03/29/26 14:16	1

Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:15	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:15	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:15	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:15	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:15	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:15	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:15	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:15	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:15	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:15	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:15	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:15	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:15	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:15	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:15	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:15	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:15	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:15	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	97		70 - 130			03/27/26 01:27	03/27/26 19:15	1
13C2 PFHxA	95		70 - 130			03/27/26 01:27	03/27/26 19:15	1
13C2 PFDA	104		70 - 130			03/27/26 01:27	03/27/26 19:15	1
13C3-GenX	95		70 - 130			03/27/26 01:27	03/27/26 19:15	1

Client Sample ID: BWS2253-H1-FB

Lab Sample ID: 380-204824-2

Date Collected: 03/24/26 09:30

Matrix: Water

Date Received: 03/25/26 10:00

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:26	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:26	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:26	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:26	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:26	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:26	1

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Client Sample Results

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

Job ID: 380-204824-1
SDG: Site H1 PFAS 533/537.1

Client Sample ID: BWS2253-H1-FB

Lab Sample ID: 380-204824-2

Date Collected: 03/24/26 09:30

Matrix: Water

Date Received: 03/25/26 10:00

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:26	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:26	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:26	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:26	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:26	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:26	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:26	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:26	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:26	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:26	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:26	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:26	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:26	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:26	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:26	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:26	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:26	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:26	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		03/28/26 07:09	03/29/26 14:26	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	90		50 - 200	03/28/26 07:09	03/29/26 14:26	1
13C6 PFDA	107		50 - 200	03/28/26 07:09	03/29/26 14:26	1
13C5 PFHxA	107		50 - 200	03/28/26 07:09	03/29/26 14:26	1
13C4 PFHpA	113		50 - 200	03/28/26 07:09	03/29/26 14:26	1
13C8 PFOA	122		50 - 200	03/28/26 07:09	03/29/26 14:26	1
13C9 PFNA	117		50 - 200	03/28/26 07:09	03/29/26 14:26	1
13C7 PFUnA	117		50 - 200	03/28/26 07:09	03/29/26 14:26	1
13C2 PFDoA	118		50 - 200	03/28/26 07:09	03/29/26 14:26	1
13C4 PFBA	113		50 - 200	03/28/26 07:09	03/29/26 14:26	1
13C5 PFPeA	118		50 - 200	03/28/26 07:09	03/29/26 14:26	1
13C3 PFBS	112		50 - 200	03/28/26 07:09	03/29/26 14:26	1
13C3 PFHxS	113		50 - 200	03/28/26 07:09	03/29/26 14:26	1
13C8 PFOS	114		50 - 200	03/28/26 07:09	03/29/26 14:26	1
13C2-4:2-FTS	131		50 - 200	03/28/26 07:09	03/29/26 14:26	1
13C2-6:2-FTS	131		50 - 200	03/28/26 07:09	03/29/26 14:26	1
13C2-8:2-FTS	132		50 - 200	03/28/26 07:09	03/29/26 14:26	1

Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:24	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:24	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:24	1

Eurofins Pomona

Client Sample Results

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

Job ID: 380-204824-1
SDG: Site H1 PFAS 533/537.1

Client Sample ID: BWS2253-H1-FB

Lab Sample ID: 380-204824-2

Date Collected: 03/24/26 09:30

Matrix: Water

Date Received: 03/25/26 10:00

Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020 (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:24	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:24	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:24	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:24	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:24	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:24	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:24	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:24	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:24	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:24	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:24	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:24	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:24	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:24	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		03/27/26 01:27	03/27/26 19:24	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	94		70 - 130			03/27/26 01:27	03/27/26 19:24	1
13C2 PFHxA	102		70 - 130			03/27/26 01:27	03/27/26 19:24	1
13C2 PFDA	108		70 - 130			03/27/26 01:27	03/27/26 19:24	1
13C3-GenX	95		70 - 130			03/27/26 01:27	03/27/26 19:24	1

Action Limit Summary

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

Job ID: 380-204824-1
SDG: Site H1 PFAS 533/537.1

Client Sample ID: BWS2253-H1-AQ

Lab Sample ID: 380-204824-1

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 Limit	RL	Method	Prep Type
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	533	Total/NA
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	EPA 537.1 V2	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	EPA 537.1 V2	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	EPA 537.1 V2	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	EPA 537.1 V2	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	EPA 537.1 V2	Total/NA

Client Sample ID: BWS2253-H1-FB

Lab Sample ID: 380-204824-2

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 Limit	RL	Method	Prep Type
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	533	Total/NA
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	EPA 537.1 V2	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	EPA 537.1 V2	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	EPA 537.1 V2	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	EPA 537.1 V2	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	EPA 537.1 V2	Total/NA

Surrogate Summary

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

Job ID: 380-204824-1
SDG: Site H1 PFAS 533/537.1

Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	d5NEFOS (70-130)	PFHxA (70-130)	PFDA (70-130)	GenX (70-130)
380-204764-B-1-A MS	Matrix Spike	106	106	110	101
380-204764-C-1-A MSD	Matrix Spike Duplicate	95	101	106	93
380-204824-1	BWS2253-H1-AQ	97	95	104	95
380-204824-2	BWS2253-H1-FB	94	102	108	95
LCS 380-215916/21-A	Lab Control Sample	98	101	103	97
MBL 380-215916/19-A	Method Blank	117	114	118	109
MRL 380-215916/20-A	Lab Control Sample	94	94	104	80

Surrogate Legend

d5NEFOS = d5-NEtFOSAA

PFHxA = 13C2 PFHxA

PFDA = 13C2 PFDA

GenX = 13C3-GenX

Isotope Dilution Summary

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

Job ID: 380-204824-1
SDG: Site H1 PFAS 533/537.1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HFPODA (50-200)	C6PFDA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	13C7PUA (50-200)	PFDaA (50-200)
380-204824-1	BWS2253-H1-AQ	89	104	97	104	108	102	104	111
380-204824-2	BWS2253-H1-FB	90	107	107	113	122	117	117	118
380-204994-B-1-A MS	Matrix Spike	104	112	108	115	115	118	119	120
380-204994-C-1-A MSD	Matrix Spike Duplicate	107	116	106	116	119	118	124	119
LCS 380-216370/22-A	Lab Control Sample	100	123	116	121	120	114	126	124
MBL 380-216370/20-A	Method Blank	90	109	110	114	120	110	110	114
MRL 380-216370/21-A	Lab Control Sample	92	110	108	113	123	110	108	109

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	PFBA (50-200)	PFPeA (50-200)	C3PFBS (50-200)	C3PFHS (50-200)	C8PFOS (50-200)	42FTS (50-200)	62FTS (50-200)	82FTS (50-200)
380-204824-1	BWS2253-H1-AQ	109	117	115	116	116	143	133	140
380-204824-2	BWS2253-H1-FB	113	118	112	113	114	131	131	132
380-204994-B-1-A MS	Matrix Spike	118	124	110	113	115	133	129	125
380-204994-C-1-A MSD	Matrix Spike Duplicate	115	121	116	114	112	137	131	130
LCS 380-216370/22-A	Lab Control Sample	116	117	115	117	114	131	125	127
MBL 380-216370/20-A	Method Blank	115	115	119	118	117	134	129	130
MRL 380-216370/21-A	Lab Control Sample	115	113	118	119	112	126	127	123

Surrogate Legend

HFPODA = 13C3 HFPO-DA
C6PFDA = 13C6 PFDA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
13C7PUA = 13C7 PFUnA
PFDaA = 13C2 PFDaA
PFBA = 13C4 PFBA
PFPeA = 13C5 PFPeA
C3PFBS = 13C3 PFBS
C3PFHS = 13C3 PFHxS
C8PFOS = 13C8 PFOS
42FTS = 13C2-4:2-FTS
62FTS = 13C2-6:2-FTS
82FTS = 13C2-8:2-FTS

QC Sample Results

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

Job ID: 380-204824-1
SDG: Site H1 PFAS 533/537.1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Lab Sample ID: MBL 380-216370/20-A

Matrix: Water

Analysis Batch: 216430

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 216370

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		03/28/26 07:09	03/29/26 12:38	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		03/28/26 07:09	03/29/26 12:38	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		03/28/26 07:09	03/29/26 12:38	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		03/28/26 07:09	03/29/26 12:38	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		03/28/26 07:09	03/29/26 12:38	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		03/28/26 07:09	03/29/26 12:38	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		03/28/26 07:09	03/29/26 12:38	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		03/28/26 07:09	03/29/26 12:38	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		03/28/26 07:09	03/29/26 12:38	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		03/28/26 07:09	03/29/26 12:38	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		03/28/26 07:09	03/29/26 12:38	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		03/28/26 07:09	03/29/26 12:38	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		03/28/26 07:09	03/29/26 12:38	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		03/28/26 07:09	03/29/26 12:38	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		03/28/26 07:09	03/29/26 12:38	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		03/28/26 07:09	03/29/26 12:38	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		03/28/26 07:09	03/29/26 12:38	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		03/28/26 07:09	03/29/26 12:38	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		03/28/26 07:09	03/29/26 12:38	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<0.25		2.0	ng/L		03/28/26 07:09	03/29/26 12:38	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		03/28/26 07:09	03/29/26 12:38	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		03/28/26 07:09	03/29/26 12:38	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		03/28/26 07:09	03/29/26 12:38	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		03/28/26 07:09	03/29/26 12:38	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		03/28/26 07:09	03/29/26 12:38	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	90		50 - 200	03/28/26 07:09	03/29/26 12:38	1
13C6 PFDA	109		50 - 200	03/28/26 07:09	03/29/26 12:38	1
13C5 PFHxA	110		50 - 200	03/28/26 07:09	03/29/26 12:38	1
13C4 PFHpA	114		50 - 200	03/28/26 07:09	03/29/26 12:38	1
13C8 PFOA	120		50 - 200	03/28/26 07:09	03/29/26 12:38	1
13C9 PFNA	110		50 - 200	03/28/26 07:09	03/29/26 12:38	1
13C7 PFUnA	110		50 - 200	03/28/26 07:09	03/29/26 12:38	1
13C2 PFDoA	114		50 - 200	03/28/26 07:09	03/29/26 12:38	1
13C4 PFBA	115		50 - 200	03/28/26 07:09	03/29/26 12:38	1
13C5 PFPeA	115		50 - 200	03/28/26 07:09	03/29/26 12:38	1
13C3 PFBS	119		50 - 200	03/28/26 07:09	03/29/26 12:38	1
13C3 PFHxS	118		50 - 200	03/28/26 07:09	03/29/26 12:38	1

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QC Sample Results

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

Job ID: 380-204824-1
SDG: Site H1 PFAS 533/537.1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: MBL 380-216370/20-A

Matrix: Water

Analysis Batch: 216430

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 216370

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	117		50 - 200	03/28/26 07:09	03/29/26 12:38	1
13C2-4:2-FTS	134		50 - 200	03/28/26 07:09	03/29/26 12:38	1
13C2-6:2-FTS	129		50 - 200	03/28/26 07:09	03/29/26 12:38	1
13C2-8:2-FTS	130		50 - 200	03/28/26 07:09	03/29/26 12:38	1

Lab Sample ID: LCS 380-216370/22-A

Matrix: Water

Analysis Batch: 216430

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 216370

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	60.1	52.2		ng/L		87	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	60.1	56.5		ng/L		94	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.1	56.1		ng/L		93	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.1	58.3		ng/L		97	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.1	56.3		ng/L		94	70 - 130
Perfluorodecanoic acid (PFDA)	60.1	53.1		ng/L		88	70 - 130
Perfluorododecanoic acid (PFDaA)	60.1	56.6		ng/L		94	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.1	56.2		ng/L		93	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.1	53.7		ng/L		89	70 - 130
Perfluorohexanoic acid (PFHxA)	60.1	55.5		ng/L		92	70 - 130
Perfluorononanoic acid (PFNA)	60.1	58.4		ng/L		97	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.1	55.7		ng/L		93	70 - 130
Perfluorooctanoic acid (PFOA)	60.1	55.0		ng/L		92	70 - 130
Perfluoroundecanoic acid (PFUnA)	60.1	54.7		ng/L		91	70 - 130
Perfluorobutanoic acid (PFBA)	60.1	56.9		ng/L		95	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.1	60.7		ng/L		101	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.1	57.2		ng/L		95	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.1	57.8		ng/L		96	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	60.1	58.0		ng/L		97	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	60.1	57.6		ng/L		96	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.1	58.8		ng/L		98	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.1	58.5		ng/L		97	70 - 130
Perfluoropentanoic acid (PFPeA)	60.1	55.9		ng/L		93	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	60.1	59.1		ng/L		98	70 - 130

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QC Sample Results

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

Job ID: 380-204824-1
SDG: Site H1 PFAS 533/537.1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: LCS 380-216370/22-A

Matrix: Water

Analysis Batch: 216430

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 216370

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	60.1	60.8		ng/L		101	70 - 130
	LCS	LCS					
Isotope Dilution	%Recovery	Qualifier	Limits				
13C3 HFPO-DA	100		50 - 200				
13C6 PFDA	123		50 - 200				
13C5 PFHxA	116		50 - 200				
13C4 PFHpA	121		50 - 200				
13C8 PFOA	120		50 - 200				
13C9 PFNA	114		50 - 200				
13C7 PFUnA	126		50 - 200				
13C2 PFDoA	124		50 - 200				
13C4 PFBA	116		50 - 200				
13C5 PFPeA	117		50 - 200				
13C3 PFBS	115		50 - 200				
13C3 PFHxS	117		50 - 200				
13C8 PFOS	114		50 - 200				
13C2-4:2-FTS	131		50 - 200				
13C2-6:2-FTS	125		50 - 200				
13C2-8:2-FTS	127		50 - 200				

Lab Sample ID: MRL 380-216370/21-A

Matrix: Water

Analysis Batch: 216430

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 216370

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	2.54	J	ng/L		127	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	2.00	2.58	J	ng/L		129	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	2.49	J	ng/L		124	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	2.63	J	ng/L		131	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.50	J	ng/L		125	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.46	J	ng/L		123	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.65	J	ng/L		132	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.47	J	ng/L		123	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.35	J	ng/L		117	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	2.64	J	ng/L		132	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.52	J	ng/L		126	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.49	J	ng/L		124	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.35	J	ng/L		117	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.53	J	ng/L		126	50 - 150
Perfluorobutanoic acid (PFBA)	2.00	2.40	J	ng/L		120	50 - 150

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QC Sample Results

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

Job ID: 380-204824-1
SDG: Site H1 PFAS 533/537.1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: MRL 380-216370/21-A

Matrix: Water

Analysis Batch: 216430

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 216370

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.00	2.60	J	ng/L		130	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.00	2.69	J	ng/L		134	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.00	2.73	J	ng/L		136	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.00	2.93	J	ng/L		146	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	2.00	2.40	J	ng/L		120	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.00	2.46	J	ng/L		123	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.00	2.60	J	ng/L		130	50 - 150
Perfluoropentanoic acid (PFPeA)	2.00	2.58	J	ng/L		129	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.00	2.63	J	ng/L		131	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.00	2.79	J	ng/L		139	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	92		50 - 200
13C6 PFDA	110		50 - 200
13C5 PFHxA	108		50 - 200
13C4 PFHpA	113		50 - 200
13C8 PFOA	123		50 - 200
13C9 PFNA	110		50 - 200
13C7 PFUnA	108		50 - 200
13C2 PFDoA	109		50 - 200
13C4 PFBA	115		50 - 200
13C5 PFPeA	113		50 - 200
13C3 PFBS	118		50 - 200
13C3 PFHxS	119		50 - 200
13C8 PFOS	112		50 - 200
13C2-4:2-FTS	126		50 - 200
13C2-6:2-FTS	127		50 - 200
13C2-8:2-FTS	123		50 - 200

Lab Sample ID: 380-204994-B-1-A MS

Matrix: Water

Analysis Batch: 216430

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 216370

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		61.1	52.8		ng/L		86	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		61.1	58.2		ng/L		95	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		61.1	56.3		ng/L		92	70 - 130

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QC Sample Results

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

Job ID: 380-204824-1
SDG: Site H1 PFAS 533/537.1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: 380-204994-B-1-A MS

Matrix: Water

Analysis Batch: 216430

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 216370

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	<2.0		61.1	59.7		ng/L		98	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorobutanesulfonic acid (PFBS)	<2.0		61.1	57.8		ng/L		95	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		61.1	55.4		ng/L		91	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		61.1	54.4		ng/L		89	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		61.1	54.7		ng/L		90	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		61.1	57.6		ng/L		94	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		61.1	57.9		ng/L		95	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		61.1	57.4		ng/L		94	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		61.1	56.8		ng/L		93	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		61.1	61.5		ng/L		101	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		61.1	56.0		ng/L		92	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		61.1	55.9		ng/L		91	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		61.1	62.5		ng/L		102	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		61.1	56.3		ng/L		92	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		61.1	59.2		ng/L		97	70 - 130
Nonafluoro-3,6-dioxahexanoic acid (NFDHA)	<2.0		61.1	60.7		ng/L		99	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		61.1	59.5		ng/L		97	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		61.1	59.1		ng/L		97	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		61.1	58.0		ng/L		95	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		61.1	57.7		ng/L		94	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		61.1	61.5		ng/L		101	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		61.1	60.8		ng/L		99	70 - 130

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C3 HFPO-DA	104		50 - 200
13C6 PFDA	112		50 - 200
13C5 PFHxA	108		50 - 200
13C4 PFHpA	115		50 - 200
13C8 PFOA	115		50 - 200
13C9 PFNA	118		50 - 200
13C7 PFUnA	119		50 - 200
13C2 PFDoA	120		50 - 200
13C4 PFBA	118		50 - 200
13C5 PFPeA	124		50 - 200
13C3 PFBS	110		50 - 200
13C3 PFHxS	113		50 - 200
13C8 PFOS	115		50 - 200

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QC Sample Results

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

Job ID: 380-204824-1
SDG: Site H1 PFAS 533/537.1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Lab Sample ID: 380-204994-B-1-A MS

Matrix: Water

Analysis Batch: 216430

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 216370

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C2-4:2-FTS	133		50 - 200
13C2-6:2-FTS	129		50 - 200
13C2-8:2-FTS	125		50 - 200

Lab Sample ID: 380-204994-C-1-A MSD

Matrix: Water

Analysis Batch: 216430

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 216370

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.4	53.6		ng/L		89	70 - 130	1	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		60.4	58.7		ng/L		97	70 - 130	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.4	56.3		ng/L		93	70 - 130	0	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.4	57.3		ng/L		95	70 - 130	4	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.4	55.5		ng/L		92	70 - 130	4	30
Perfluorodecanoic acid (PFDA)	<2.0		60.4	54.7		ng/L		91	70 - 130	1	30
Perfluorododecanoic acid (PFDaA)	<2.0		60.4	57.3		ng/L		95	70 - 130	5	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.4	54.7		ng/L		91	70 - 130	0	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.4	56.1		ng/L		93	70 - 130	3	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.4	57.7		ng/L		96	70 - 130	0	30
Perfluorononanoic acid (PFNA)	<2.0		60.4	54.8		ng/L		91	70 - 130	5	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.4	58.2		ng/L		96	70 - 130	2	30
Perfluorooctanoic acid (PFOA)	<2.0		60.4	55.7		ng/L		92	70 - 130	10	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.4	55.1		ng/L		91	70 - 130	2	30
Perfluorobutanoic acid (PFBA)	<2.0		60.4	55.5		ng/L		92	70 - 130	1	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.4	57.0		ng/L		94	70 - 130	9	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.4	55.6		ng/L		92	70 - 130	1	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.4	58.0		ng/L		96	70 - 130	2	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.4	59.7		ng/L		99	70 - 130	2	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<2.0		60.4	57.4		ng/L		95	70 - 130	4	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.4	55.3		ng/L		92	70 - 130	7	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.4	56.9		ng/L		94	70 - 130	2	30
Perfluoropentanoic acid (PFPeA)	<2.0		60.4	56.6		ng/L		94	70 - 130	2	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.4	59.7		ng/L		99	70 - 130	3	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.4	61.4		ng/L		102	70 - 130	1	30

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QC Sample Results

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

Job ID: 380-204824-1
SDG: Site H1 PFAS 533/537.1

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C3 HFPO-DA	107		50 - 200
13C6 PFDA	116		50 - 200
13C5 PFHxA	106		50 - 200
13C4 PFHpA	116		50 - 200
13C8 PFOA	119		50 - 200
13C9 PFNA	118		50 - 200
13C7 PFUnA	124		50 - 200
13C2 PFDoA	119		50 - 200
13C4 PFBA	115		50 - 200
13C5 PFPeA	121		50 - 200
13C3 PFBS	116		50 - 200
13C3 PFHxS	114		50 - 200
13C8 PFOS	112		50 - 200
13C2-4:2-FTS	137		50 - 200
13C2-6:2-FTS	131		50 - 200
13C2-8:2-FTS	130		50 - 200

Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020

Lab Sample ID: MBL 380-215916/19-A
Matrix: Water
Analysis Batch: 216283

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 215916

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		03/27/26 01:27	03/27/26 16:03	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		03/27/26 01:27	03/27/26 16:03	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		03/27/26 01:27	03/27/26 16:03	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		03/27/26 01:27	03/27/26 16:03	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		03/27/26 01:27	03/27/26 16:03	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		03/27/26 01:27	03/27/26 16:03	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		03/27/26 01:27	03/27/26 16:03	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		03/27/26 01:27	03/27/26 16:03	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		03/27/26 01:27	03/27/26 16:03	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		03/27/26 01:27	03/27/26 16:03	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		03/27/26 01:27	03/27/26 16:03	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		03/27/26 01:27	03/27/26 16:03	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		03/27/26 01:27	03/27/26 16:03	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		03/27/26 01:27	03/27/26 16:03	1
Perfluorotridecanoic acid (PFTrDA)	<0.36		2.0	ng/L		03/27/26 01:27	03/27/26 16:03	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		03/27/26 01:27	03/27/26 16:03	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		03/27/26 01:27	03/27/26 16:03	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		03/27/26 01:27	03/27/26 16:03	1
Surrogate	MBL %Recovery	MBL Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	117		70 - 130			03/27/26 01:27	03/27/26 16:03	1
13C2 PFHxA	114		70 - 130			03/27/26 01:27	03/27/26 16:03	1
13C2 PFDA	118		70 - 130			03/27/26 01:27	03/27/26 16:03	1

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QC Sample Results

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

Job ID: 380-204824-1
SDG: Site H1 PFAS 533/537.1

Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020 (Continued)

Lab Sample ID: MBL 380-215916/19-A
Matrix: Water
Analysis Batch: 216283

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 215916

Surrogate	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3-GenX	109		70 - 130	03/27/26 01:27	03/27/26 16:03	1

Lab Sample ID: LCS 380-215916/21-A
Matrix: Water
Analysis Batch: 216283

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 215916

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	50.0	46.1		ng/L		92	70 - 130
Dimer Acid (HFPO-DA/GenX)							
Perfluorooctanesulfonic acid (PFOS)	50.0	48.3		ng/L		97	70 - 130
Perfluoroundecanoic acid (PFUnA)	50.0	49.7		ng/L		99	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	50.0	49.6		ng/L		99	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	50.0	47.4		ng/L		95	70 - 130
Perfluorohexanoic acid (PFHxA)	50.0	47.9		ng/L		96	70 - 130
Perfluorododecanoic acid (PFDoA)	50.0	50.5		ng/L		101	70 - 130
Perfluorooctanoic acid (PFOA)	50.0	49.3		ng/L		99	70 - 130
Perfluorodecanoic acid (PFDA)	50.0	49.2		ng/L		98	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	50.0	49.8		ng/L		100	70 - 130
Perfluorobutanesulfonic acid (PFBS)	50.0	48.4		ng/L		97	70 - 130
Perfluoroheptanoic acid (PFHpA)	50.0	48.4		ng/L		97	70 - 130
Perfluorononanoic acid (PFNA)	50.0	48.9		ng/L		98	70 - 130
Perfluorotetradecanoic acid (PFTA)	50.0	45.9		ng/L		92	70 - 130
Perfluorotridecanoic acid (PFTrDA)	50.0	47.3		ng/L		95	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	50.0	50.2		ng/L		100	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	50.0	47.8		ng/L		96	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	50.0	47.5		ng/L		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
d5-NEtFOSAA	98		70 - 130
13C2 PFHxA	101		70 - 130
13C2 PFDA	103		70 - 130
13C3-GenX	97		70 - 130

QC Sample Results

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

Job ID: 380-204824-1
SDG: Site H1 PFAS 533/537.1

Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020 (Continued)

Lab Sample ID: MRL 380-215916/20-A

Matrix: Water

Analysis Batch: 216283

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 215916

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	2.00	1.60	J	ng/L		80	50 - 150
Dimer Acid (HFPO-DA/GenX)							
Perfluorooctanesulfonic acid (PFOS)	2.00	2.11	J	ng/L		105	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.12	J	ng/L		106	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	1.87	J	ng/L		93	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	1.96	J	ng/L		98	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	1.89	J	ng/L		94	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.16	J	ng/L		108	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.04	J	ng/L		102	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.14	J	ng/L		107	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.09	J	ng/L		104	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.07	J	ng/L		103	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	1.99	J	ng/L		99	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.25	J	ng/L		112	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.00	2.15	J	ng/L		107	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.00	2.08	J	ng/L		104	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	2.16	J	ng/L		108	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	2.03	J	ng/L		101	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	1.76	J	ng/L		88	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
d5-NEtFOSAA	94		70 - 130
13C2 PFHxA	94		70 - 130
13C2 PFDA	104		70 - 130
13C3-GenX	80		70 - 130

Lab Sample ID: 380-204764-B-1-A MS

Matrix: Water

Analysis Batch: 216283

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 215916

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	<2.0		50.2	44.3		ng/L		88	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorooctanesulfonic acid (PFOS)	<2.0		50.2	50.4		ng/L		100	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		50.2	49.9		ng/L		99	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		50.2	47.2		ng/L		94	70 - 130

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QC Sample Results

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

Job ID: 380-204824-1
SDG: Site H1 PFAS 533/537.1

Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020 (Continued)

Lab Sample ID: 380-204764-B-1-A MS

Matrix: Water

Analysis Batch: 216283

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 215916

Appendix B: PFAS Data									
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		50.2	48.1		ng/L		96	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		50.2	48.3		ng/L		95	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		50.2	50.0		ng/L		100	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		50.2	49.3		ng/L		98	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		50.2	49.8		ng/L		99	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		50.2	51.1		ng/L		101	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		50.2	50.9		ng/L		101	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		50.2	48.6		ng/L		97	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		50.2	50.3		ng/L		100	70 - 130
Perfluorotetradecanoic acid (PFTA)	<2.0		50.2	45.5		ng/L		91	70 - 130
Perfluorotridecanoic acid (PFTrDA)	<2.0		50.2	48.2		ng/L		96	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		50.2	50.0		ng/L		100	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		50.2	49.5		ng/L		99	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		50.2	46.9		ng/L		93	70 - 130

Lab Sample ID: 380-204764-C-1-A MSD

Matrix: Water

Analysis Batch: 216283

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 215916

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		50.2	43.6		ng/L		87	70 - 130	1	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		50.2	49.6		ng/L		99	70 - 130	2	30
Perfluoroundecanoic acid (PFUnA)	<2.0		50.2	50.9		ng/L		101	70 - 130	2	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		50.2	45.9		ng/L		91	70 - 130	3	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		50.2	45.4		ng/L		90	70 - 130	6	30
Perfluorohexanoic acid (PFHxA)	<2.0		50.2	47.7		ng/L		93	70 - 130	1	30
Perfluorododecanoic acid (PFDoA)	<2.0		50.2	50.2		ng/L		100	70 - 130	0	30
Perfluorooctanoic acid (PFOA)	<2.0		50.2	49.6		ng/L		99	70 - 130	1	30
Perfluorodecanoic acid (PFDA)	<2.0		50.2	50.8		ng/L		101	70 - 130	2	30

Eurofins Pomona

QC Sample Results

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

Job ID: 380-204824-1
SDG: Site H1 PFAS 533/537.1

Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020 (Continued)

Lab Sample ID: 380-204764-C-1-A MSD

Matrix: Water

Analysis Batch: 216283

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 215916

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorohexanesulfonic acid (PFHxS)	<2.0		50.2	50.7		ng/L		100	70 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		50.2	51.2		ng/L		102	70 - 130	0	30
Perfluoroheptanoic acid (PFHpA)	<2.0		50.2	49.4		ng/L		98	70 - 130	2	30
Perfluorononanoic acid (PFNA)	<2.0		50.2	50.1		ng/L		100	70 - 130	0	30
Perfluorotetradecanoic acid (PFTA)	<2.0		50.2	46.1		ng/L		92	70 - 130	1	30
Perfluorotridecanoic acid (PFTTrDA)	<2.0		50.2	49.4		ng/L		98	70 - 130	2	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		50.2	50.1		ng/L		100	70 - 130	0	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		50.2	48.7		ng/L		97	70 - 130	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		50.2	46.6		ng/L		93	70 - 130	1	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
d5-NEtFOSAA	95		70 - 130								
13C2 PFHxA	101		70 - 130								
13C2 PFDA	106		70 - 130								
13C3-GenX	93		70 - 130								

QC Association Summary

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

Job ID: 380-204824-1
SDG: Site H1 PFAS 533/537.1

LCMS

Prep Batch: 215916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-204824-1	BWS2253-H1-AQ	Total/NA	Water	537.1 DW	
380-204824-2	BWS2253-H1-FB	Total/NA	Water	537.1 DW	
MBL 380-215916/19-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-215916/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-215916/20-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-204764-B-1-A MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-204764-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Analysis Batch: 216283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-204824-1	BWS2253-H1-AQ	Total/NA	Water	EPA 537.1 V2	215916
380-204824-2	BWS2253-H1-FB	Total/NA	Water	EPA 537.1 V2	215916
MBL 380-215916/19-A	Method Blank	Total/NA	Water	EPA 537.1 V2	215916
LCS 380-215916/21-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	215916
MRL 380-215916/20-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	215916
380-204764-B-1-A MS	Matrix Spike	Total/NA	Water	EPA 537.1 V2	215916
380-204764-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	EPA 537.1 V2	215916

Prep Batch: 216370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-204824-1	BWS2253-H1-AQ	Total/NA	Water	533	
380-204824-2	BWS2253-H1-FB	Total/NA	Water	533	
MBL 380-216370/20-A	Method Blank	Total/NA	Water	533	
LCS 380-216370/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-216370/21-A	Lab Control Sample	Total/NA	Water	533	
380-204994-B-1-A MS	Matrix Spike	Total/NA	Water	533	
380-204994-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 216430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-204824-1	BWS2253-H1-AQ	Total/NA	Water	533	216370
380-204824-2	BWS2253-H1-FB	Total/NA	Water	533	216370
MBL 380-216370/20-A	Method Blank	Total/NA	Water	533	216370
LCS 380-216370/22-A	Lab Control Sample	Total/NA	Water	533	216370
MRL 380-216370/21-A	Lab Control Sample	Total/NA	Water	533	216370
380-204994-B-1-A MS	Matrix Spike	Total/NA	Water	533	216370
380-204994-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	216370

Lab Chronicle

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

Job ID: 380-204824-1
SDG: Site H1 PFAS 533/537.1

Client Sample ID: BWS2253-H1-AQ

Lab Sample ID: 380-204824-1

Date Collected: 03/24/26 09:30

Matrix: Water

Date Received: 03/25/26 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			216370	XTD8	EA POM	03/28/26 07:09
Total/NA	Analysis	533		1	216430	SZ9R	EA POM	03/29/26 14:16
Total/NA	Prep	537.1 DW			215916	G9MN	EA POM	03/27/26 01:27
Total/NA	Analysis	EPA 537.1 V2		1	216283	Y5FM	EA POM	03/27/26 19:15

Client Sample ID: BWS2253-H1-FB

Lab Sample ID: 380-204824-2

Date Collected: 03/24/26 09:30

Matrix: Water

Date Received: 03/25/26 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			216370	XTD8	EA POM	03/28/26 07:09
Total/NA	Analysis	533		1	216430	SZ9R	EA POM	03/29/26 14:26
Total/NA	Prep	537.1 DW			215916	G9MN	EA POM	03/27/26 01:27
Total/NA	Analysis	EPA 537.1 V2		1	216283	Y5FM	EA POM	03/27/26 19:24

Laboratory References:

EA POM = Eurofins Pomona, 941 Corporate Center Drive, Pomona, CA 91768-2642, TEL (626)386-1100

Accreditation/Certification Summary

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

Job ID: 380-204824-1
SDG: Site H1 PFAS 533/537.1

Laboratory: Eurofins Pomona

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Hawaii	State	CA00006	01-31-26 *

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

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

Method Summary

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

Job ID: 380-204824-1
SDG: Site H1 PFAS 533/537.1

Method	Method Description	Protocol	Laboratory
533	Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water	EPA	EA POM
EPA 537.1 V2	EPA 537.1 Ver. 2.0 March 2020	EPA	EA POM
533	Extraction of Perfluorinated and Polyfluorinated Alkyl Acids	EPA	EA POM
537.1 DW	Extraction of Perfluorinated Alkyl Acids	EPA	EA POM

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

EA POM = Eurofins Pomona, 941 Corporate Center Drive, Pomona, CA 91768-2642, TEL (626)386-1100

Sample Summary

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

Job ID: 380-204824-1
SDG: Site H1 PFAS 533/537.1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-204824-1	BWS2253-H1-AQ	Water	03/24/26 09:30	03/25/26 10:00	Hawaii
380-204824-2	BWS2253-H1-FB	Water	03/24/26 09:30	03/25/26 10:00	Hawaii

Eurofins Pomona
941 Corporate Center Drive
Pomona CA 91768-2642
Phone (626) 386-1100

Chain of Custody Record

Client Information		Sampler H Bentley (808) 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@eurofins.com	State of Origin Hawaii		Page: Page 1 of 1
Company City & County of Honolulu		PWSID:		Analysis Requested			
Address: 630 South Beretania Street		Due Date Requested		Total Number of containers			
City: Honolulu		TAT Requested (days) Standard		Preservation Codes A - HCL N - None			
State, Zip HI 96843		Compliance Project: ☐ Yes ☒ No		Other: 380-204824 COC			
Phone 808-748-5066		PO #:		Special Instructions/Note:			
Email: ekawata@hbws.org		WO #:		637 1 DW, PREC - 637 1 Full List			
Project Name: INTERA - Red-Hill-Incident		Project #: 38000861		633 - All Analytes			
Site H1		SSOW#:		Field Filtered Sample (Yes or No)			
Sample Identification		Sample Date	Sample Time	Sample Type (G=comp, G=grab)	Matrix (W=water, S=solid, O=soil, BT=Tissue, A=Air, DW=Drinking Water)	Field Filtered Sample (Yes or No)	Field Filtered Sample (Yes or No)
BWS2253-H1-AQ	3/24/2026	9:30	G	G	Water	3	3
BWS2253-H1-FB	3/24/2026	9:30	G	G	Water	1	1
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months		Special Instructions/QC Requirements.			
Deliverable Requested: I II III IV Other (specify)		Special Instructions/QC Requirements.		Special Instructions/QC Requirements.			
Empty Kit Relinquished by		Date:		Method of Shipment:			
Relinquished by		Date/Time: 3/24/2026 14:00		Received by		Date/Time: 3/25/2026 10:00	
Relinquished by		Date/Time:		Received by		Date/Time:	
Relinquished by		Date/Time:		Received by		Date/Time:	
Custody Seals Intact: ☐ Yes ☒ No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: 68°F / 2.3 = 2.3 100			

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-204824-1
SDG Number: Site H1 PFAS 533/537.1

Login Number: 204824

List Number: 1

Creator: Ngo, Theodore

List Source: Eurofins Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	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	
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	
CIO4 headspace requirement met (>50% for CA, >30% for other states).	N/A	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	