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ANALYTICAL REPORT

PREPARED FOR

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City & County of Honolulu
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JOB DESCRIPTION

RED-HILL
PFAS: Aiea Gulch Wells Pump1/Pump 2, Aiea Wells Pumps 1&2 P2

JOB NUMBER

380-172825-1

Eurofins Eaton Analytical 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 Eaton Analytical, 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



Authorized for release by
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Definitions/Glossary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump1/Pump 2, Aiea Wells
Pumps 1&2 P2

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: RED-HILL

Job ID: 380-172825-1

Job ID: 380-172825-1

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Job Narrative 380-172825-1

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 9/23/2025 10:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.5°C, 2.9°C and 3.0°C.

PFAS

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

Detection Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump1/Pump 2, Aiea Wells
Pumps 1&2 P2

Client Sample ID: AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-172825-1

No Detections.

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-172825-2

No Detections.

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-172825-3

No Detections.

Client Sample ID: FB AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-172825-4

No Detections.

Client Sample ID: FB AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-172825-5

No Detections.

Client Sample ID: FB AIEA WELLS PUMPS 1&2 (260)

Lab Sample ID: 380-172825-6

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: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump 1/Pump 2, Aiea Wells
Pumps 1&2 P2

Client Sample ID: AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-172825-1

Date Collected: 09/22/25 10:40

Matrix: Water

Date Received: 09/23/25 10:20

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		09/24/25 07:51	09/24/25 23:16	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:16	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:16	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:16	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:16	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:16	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:16	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:16	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:16	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:16	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:16	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:16	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:16	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:16	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:16	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:16	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:16	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:16	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:16	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:16	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:16	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:16	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:16	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:16	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:16	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	105		50 - 200	09/24/25 07:51	09/24/25 23:16	1
13C6 PFDA	112		50 - 200	09/24/25 07:51	09/24/25 23:16	1
13C5 PFHxA	115		50 - 200	09/24/25 07:51	09/24/25 23:16	1
13C4 PFHpA	114		50 - 200	09/24/25 07:51	09/24/25 23:16	1
13C8 PFOA	118		50 - 200	09/24/25 07:51	09/24/25 23:16	1
13C9 PFNA	118		50 - 200	09/24/25 07:51	09/24/25 23:16	1
13C7 PFUnA	111		50 - 200	09/24/25 07:51	09/24/25 23:16	1
13C2 PFDoA	106		50 - 200	09/24/25 07:51	09/24/25 23:16	1
13C4 PFBA	118		50 - 200	09/24/25 07:51	09/24/25 23:16	1
13C5 PFPeA	118		50 - 200	09/24/25 07:51	09/24/25 23:16	1
13C3 PFBS	122		50 - 200	09/24/25 07:51	09/24/25 23:16	1
13C3 PFHxS	122		50 - 200	09/24/25 07:51	09/24/25 23:16	1

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Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump 1/Pump 2, Aiea Wells
Pumps 1&2 P2

Client Sample ID: AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-172825-1

Date Collected: 09/22/25 10:40

Matrix: Water

Date Received: 09/23/25 10:20

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	119		50 - 200	09/24/25 07:51	09/24/25 23:16	1
13C2-4:2-FTS	139		50 - 200	09/24/25 07:51	09/24/25 23:16	1
13C2-6:2-FTS	134		50 - 200	09/24/25 07:51	09/24/25 23:16	1
13C2-8:2-FTS	116		50 - 200	09/24/25 07:51	09/24/25 23:16	1

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 07:34	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 07:34	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 07:34	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 07:34	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 07:34	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 07:34	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 07:34	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 07:34	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 07:34	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 07:34	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 07:34	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 07:34	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 07:34	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 07:34	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 07:34	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 07:34	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 07:34	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 07:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	112		70 - 130	09/24/25 09:07	09/25/25 07:34	1
13C2 PFHxA	118		70 - 130	09/24/25 09:07	09/25/25 07:34	1
13C2 PFDA	118		70 - 130	09/24/25 09:07	09/25/25 07:34	1
13C3-GenX	127		70 - 130	09/24/25 09:07	09/25/25 07:34	1

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-172825-2

Date Collected: 09/22/25 10:58

Matrix: Water

Date Received: 09/23/25 10:20

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		09/24/25 07:51	09/24/25 23:27	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:27	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:27	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:27	1

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Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump 1/Pump 2, Aiea Wells
Pumps 1&2 P2

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-172825-2

Date Collected: 09/22/25 10:58

Matrix: Water

Date Received: 09/23/25 10:20

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:27	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:27	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:27	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:27	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:27	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:27	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:27	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:27	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:27	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:27	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:27	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:27	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:27	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:27	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:27	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:27	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:27	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:27	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:27	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:27	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:27	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	101		50 - 200	09/24/25 07:51	09/24/25 23:27	1
13C6 PFDA	110		50 - 200	09/24/25 07:51	09/24/25 23:27	1
13C5 PFHxA	109		50 - 200	09/24/25 07:51	09/24/25 23:27	1
13C4 PFHpA	110		50 - 200	09/24/25 07:51	09/24/25 23:27	1
13C8 PFOA	113		50 - 200	09/24/25 07:51	09/24/25 23:27	1
13C9 PFNA	113		50 - 200	09/24/25 07:51	09/24/25 23:27	1
13C7 PFUnA	111		50 - 200	09/24/25 07:51	09/24/25 23:27	1
13C2 PFDoA	105		50 - 200	09/24/25 07:51	09/24/25 23:27	1
13C4 PFBA	111		50 - 200	09/24/25 07:51	09/24/25 23:27	1
13C5 PFPeA	111		50 - 200	09/24/25 07:51	09/24/25 23:27	1
13C3 PFBS	121		50 - 200	09/24/25 07:51	09/24/25 23:27	1
13C3 PFHxS	120		50 - 200	09/24/25 07:51	09/24/25 23:27	1
13C8 PFOS	114		50 - 200	09/24/25 07:51	09/24/25 23:27	1
13C2-4:2-FTS	137		50 - 200	09/24/25 07:51	09/24/25 23:27	1
13C2-6:2-FTS	128		50 - 200	09/24/25 07:51	09/24/25 23:27	1
13C2-8:2-FTS	110		50 - 200	09/24/25 07:51	09/24/25 23:27	1

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump 1/Pump 2, Aiea Wells
Pumps 1&2 P2

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-172825-2

Date Collected: 09/22/25 10:58

Matrix: Water

Date Received: 09/23/25 10:20

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:31	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:31	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:31	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:31	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:31	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:31	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:31	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:31	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:31	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:31	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:31	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:31	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:31	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:31	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:31	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:31	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:31	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:31	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	111		70 - 130			09/24/25 09:07	09/25/25 08:31	1
13C2 PFHxA	118		70 - 130			09/24/25 09:07	09/25/25 08:31	1
13C2 PFDA	109		70 - 130			09/24/25 09:07	09/25/25 08:31	1
13C3-GenX	120		70 - 130			09/24/25 09:07	09/25/25 08:31	1

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-172825-3

Date Collected: 09/22/25 11:23

Matrix: Water

Date Received: 09/23/25 10:20

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		09/24/25 07:51	09/24/25 22:12	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 22:12	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 22:12	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 22:12	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 22:12	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 22:12	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 22:12	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 22:12	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 22:12	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 22:12	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 22:12	1

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump 1/Pump 2, Aiea Wells
Pumps 1&2 P2

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-172825-3

Date Collected: 09/22/25 11:23

Matrix: Water

Date Received: 09/23/25 10:20

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 22:12	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 22:12	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 22:12	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 22:12	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 22:12	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 22:12	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 22:12	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 22:12	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 22:12	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 22:12	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 22:12	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 22:12	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 22:12	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 22:12	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	105		50 - 200			09/24/25 07:51	09/24/25 22:12	1
13C6 PFDA	117		50 - 200			09/24/25 07:51	09/24/25 22:12	1
13C5 PFHxA	113		50 - 200			09/24/25 07:51	09/24/25 22:12	1
13C4 PFHpA	116		50 - 200			09/24/25 07:51	09/24/25 22:12	1
13C8 PFOA	122		50 - 200			09/24/25 07:51	09/24/25 22:12	1
13C9 PFNA	120		50 - 200			09/24/25 07:51	09/24/25 22:12	1
13C7 PFUnA	115		50 - 200			09/24/25 07:51	09/24/25 22:12	1
13C2 PFDoA	110		50 - 200			09/24/25 07:51	09/24/25 22:12	1
13C4 PFBA	121		50 - 200			09/24/25 07:51	09/24/25 22:12	1
13C5 PFPeA	120		50 - 200			09/24/25 07:51	09/24/25 22:12	1
13C3 PFBS	125		50 - 200			09/24/25 07:51	09/24/25 22:12	1
13C3 PFHxS	130		50 - 200			09/24/25 07:51	09/24/25 22:12	1
13C8 PFOS	121		50 - 200			09/24/25 07:51	09/24/25 22:12	1
13C2-4:2-FTS	140		50 - 200			09/24/25 07:51	09/24/25 22:12	1
13C2-6:2-FTS	138		50 - 200			09/24/25 07:51	09/24/25 22:12	1
13C2-8:2-FTS	122		50 - 200			09/24/25 07:51	09/24/25 22:12	1

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:41	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:41	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:41	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:41	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:41	1

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump 1/Pump 2, Aiea Wells
Pumps 1&2 P2

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-172825-3

Date Collected: 09/22/25 11:23

Matrix: Water

Date Received: 09/23/25 10:20

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:41	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:41	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:41	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:41	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:41	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:41	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:41	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:41	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:41	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:41	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:41	1
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:41	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	103		70 - 130			09/24/25 09:07	09/25/25 08:41	1
13C2 PFHxA	122		70 - 130			09/24/25 09:07	09/25/25 08:41	1
13C2 PFDA	113		70 - 130			09/24/25 09:07	09/25/25 08:41	1
13C3-GenX	125		70 - 130			09/24/25 09:07	09/25/25 08:41	1

Client Sample ID: FB AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-172825-4

Date Collected: 09/22/25 10:40

Matrix: Water

Date Received: 09/23/25 10:20

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 (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:38	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:38	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:38	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:38	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:38	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:38	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:38	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:38	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:38	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:38	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:38	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:38	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:38	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:38	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:38	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:38	1

Client Sample Results

Client: City & County of Honolulu
 Project/Site: RED-HILL

Job ID: 380-172825-1
 SDG: PFAS: Aiea Gulch Wells Pump 1/Pump 2, Aiea Wells
 Pumps 1&2 P2

Client Sample ID: FB AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-172825-4

Date Collected: 09/22/25 10:40

Matrix: Water

Date Received: 09/23/25 10:20

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:38	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:38	1
Nonafluoro-3,6-dioxahexanoic acid (NFDHA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:38	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:38	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:38	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:38	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:38	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:38	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:38	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	97		50 - 200			09/24/25 07:51	09/24/25 23:38	1
13C6 PFDA	112		50 - 200			09/24/25 07:51	09/24/25 23:38	1
13C5 PFHxA	107		50 - 200			09/24/25 07:51	09/24/25 23:38	1
13C4 PFHpA	111		50 - 200			09/24/25 07:51	09/24/25 23:38	1
13C8 PFOA	113		50 - 200			09/24/25 07:51	09/24/25 23:38	1
13C9 PFNA	115		50 - 200			09/24/25 07:51	09/24/25 23:38	1
13C7 PFUnA	112		50 - 200			09/24/25 07:51	09/24/25 23:38	1
13C2 PFDoA	104		50 - 200			09/24/25 07:51	09/24/25 23:38	1
13C4 PFBA	113		50 - 200			09/24/25 07:51	09/24/25 23:38	1
13C5 PFPeA	115		50 - 200			09/24/25 07:51	09/24/25 23:38	1
13C3 PFBS	116		50 - 200			09/24/25 07:51	09/24/25 23:38	1
13C3 PFHxS	119		50 - 200			09/24/25 07:51	09/24/25 23:38	1
13C8 PFOS	114		50 - 200			09/24/25 07:51	09/24/25 23:38	1
13C2-4:2-FTS	131		50 - 200			09/24/25 07:51	09/24/25 23:38	1
13C2-6:2-FTS	128		50 - 200			09/24/25 07:51	09/24/25 23:38	1
13C2-8:2-FTS	114		50 - 200			09/24/25 07:51	09/24/25 23:38	1

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:50	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:50	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:50	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:50	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:50	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:50	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:50	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:50	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:50	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:50	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:50	1

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump 1/Pump 2, Aiea Wells
Pumps 1&2 P2

Client Sample ID: FB AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-172825-4

Date Collected: 09/22/25 10:40

Matrix: Water

Date Received: 09/23/25 10:20

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:50	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:50	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:50	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:50	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:50	1
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:50	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 08:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	111		70 - 130			09/24/25 09:07	09/25/25 08:50	1
13C2 PFHxA	119		70 - 130			09/24/25 09:07	09/25/25 08:50	1
13C2 PFDA	112		70 - 130			09/24/25 09:07	09/25/25 08:50	1
13C3-GenX	119		70 - 130			09/24/25 09:07	09/25/25 08:50	1

Client Sample ID: FB AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-172825-5

Date Collected: 09/22/25 10:58

Matrix: Water

Date Received: 09/23/25 10:20

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 (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:49	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:49	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:49	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:49	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:49	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:49	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:49	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:49	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:49	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:49	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:49	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:49	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:49	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:49	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:49	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:49	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:49	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:49	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:49	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:49	1

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump 1/Pump 2, Aiea Wells
Pumps 1&2 P2

Client Sample ID: FB AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-172825-5

Date Collected: 09/22/25 10:58

Matrix: Water

Date Received: 09/23/25 10:20

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:49	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:49	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:49	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:49	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:49	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	98		50 - 200			09/24/25 07:51	09/24/25 23:49	1
13C6 PFDA	104		50 - 200			09/24/25 07:51	09/24/25 23:49	1
13C5 PFHxA	107		50 - 200			09/24/25 07:51	09/24/25 23:49	1
13C4 PFHpA	107		50 - 200			09/24/25 07:51	09/24/25 23:49	1
13C8 PFOA	112		50 - 200			09/24/25 07:51	09/24/25 23:49	1
13C9 PFNA	110		50 - 200			09/24/25 07:51	09/24/25 23:49	1
13C7 PFUnA	108		50 - 200			09/24/25 07:51	09/24/25 23:49	1
13C2 PFDoA	101		50 - 200			09/24/25 07:51	09/24/25 23:49	1
13C4 PFBA	114		50 - 200			09/24/25 07:51	09/24/25 23:49	1
13C5 PFPeA	113		50 - 200			09/24/25 07:51	09/24/25 23:49	1
13C3 PFBS	120		50 - 200			09/24/25 07:51	09/24/25 23:49	1
13C3 PFHxS	120		50 - 200			09/24/25 07:51	09/24/25 23:49	1
13C8 PFOS	117		50 - 200			09/24/25 07:51	09/24/25 23:49	1
13C2-4:2-FTS	132		50 - 200			09/24/25 07:51	09/24/25 23:49	1
13C2-6:2-FTS	129		50 - 200			09/24/25 07:51	09/24/25 23:49	1
13C2-8:2-FTS	113		50 - 200			09/24/25 07:51	09/24/25 23:49	1

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:00	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:00	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:00	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:00	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:00	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:00	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:00	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:00	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:00	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:00	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:00	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:00	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:00	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:00	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:00	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:00	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:00	1

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump 1/Pump 2, Aiea Wells
Pumps 1&2 P2

Client Sample ID: FB AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-172825-5

Date Collected: 09/22/25 10:58

Matrix: Water

Date Received: 09/23/25 10:20

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	107		70 - 130			09/24/25 09:07	09/25/25 09:00	1
13C2 PFHxA	118		70 - 130			09/24/25 09:07	09/25/25 09:00	1
13C2 PFDA	115		70 - 130			09/24/25 09:07	09/25/25 09:00	1
13C3-GenX	114		70 - 130			09/24/25 09:07	09/25/25 09:00	1

Client Sample ID: FB AIEA WELLS PUMPS 1&2 (260)

Lab Sample ID: 380-172825-6

Date Collected: 09/22/25 11:23

Matrix: Water

Date Received: 09/23/25 10:20

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	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:59	1
e-1-sulfonic acid (11Cl-PF3OUdS)								
9-Chlorohexadecafluoro-3-oxanonan	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:59	1
e-1-sulfonic acid(9Cl-PF3ONS)								
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:59	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:59	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:59	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:59	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:59	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:59	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:59	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:59	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:59	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:59	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:59	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:59	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:59	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:59	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:59	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:59	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:59	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:59	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:59	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:59	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:59	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:59	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		09/24/25 07:51	09/24/25 23:59	1

Eurofins Eaton Analytical Pomona

Client Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump 1/Pump 2, Aiea Wells
Pumps 1&2 P2

Client Sample ID: FB AIEA WELLS PUMPS 1&2 (260)

Lab Sample ID: 380-172825-6

Date Collected: 09/22/25 11:23

Matrix: Water

Date Received: 09/23/25 10:20

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	93		50 - 200	09/24/25 07:51	09/24/25 23:59	1
13C6 PFDA	105		50 - 200	09/24/25 07:51	09/24/25 23:59	1
13C5 PFHxA	103		50 - 200	09/24/25 07:51	09/24/25 23:59	1
13C4 PFHpA	103		50 - 200	09/24/25 07:51	09/24/25 23:59	1
13C8 PFOA	108		50 - 200	09/24/25 07:51	09/24/25 23:59	1
13C9 PFNA	106		50 - 200	09/24/25 07:51	09/24/25 23:59	1
13C7 PFUnA	107		50 - 200	09/24/25 07:51	09/24/25 23:59	1
13C2 PFDoA	101		50 - 200	09/24/25 07:51	09/24/25 23:59	1
13C4 PFBA	110		50 - 200	09/24/25 07:51	09/24/25 23:59	1
13C5 PFPeA	108		50 - 200	09/24/25 07:51	09/24/25 23:59	1
13C3 PFBS	113		50 - 200	09/24/25 07:51	09/24/25 23:59	1
13C3 PFHxS	116		50 - 200	09/24/25 07:51	09/24/25 23:59	1
13C8 PFOS	115		50 - 200	09/24/25 07:51	09/24/25 23:59	1
13C2-4:2-FTS	131		50 - 200	09/24/25 07:51	09/24/25 23:59	1
13C2-6:2-FTS	128		50 - 200	09/24/25 07:51	09/24/25 23:59	1
13C2-8:2-FTS	111		50 - 200	09/24/25 07:51	09/24/25 23:59	1

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:09	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:09	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:09	1
N-methylperfluorooctanesulfonamide cetic acid (NMeFOSAA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:09	1
N-ethylperfluorooctanesulfonamide cetic acid (NEtFOSAA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:09	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:09	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:09	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:09	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:09	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:09	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:09	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:09	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:09	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:09	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:09	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:09	1
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:09	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/24/25 09:07	09/25/25 09:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	114		70 - 130	09/24/25 09:07	09/25/25 09:09	1
13C2 PFHxA	116		70 - 130	09/24/25 09:07	09/25/25 09:09	1
13C2 PFDA	119		70 - 130	09/24/25 09:07	09/25/25 09:09	1
13C3-GenX	115		70 - 130	09/24/25 09:07	09/25/25 09:09	1

Action Limit Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump 1/Pump 2, Aiea Wells Pumps 1&2 P2

Client Sample ID: AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-172825-1

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			
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	537.1	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	537.1	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	537.1	Total/NA

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-172825-2

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	RL	Method	Prep Type
				Limit			
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	537.1	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	537.1	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	537.1	Total/NA

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-172825-3

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			
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

Action Limit Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump 1/Pump 2, Aiea Wells
Pumps 1&2 P2

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2
(Continued)

Lab Sample ID: 380-172825-3

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			
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	537.1	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	537.1	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	537.1	Total/NA

Client Sample ID: FB AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-172825-4

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			
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	537.1	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	537.1	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	537.1	Total/NA

Client Sample ID: FB AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-172825-5

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			
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	537.1	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	537.1	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	537.1	Total/NA

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Action Limit Summary

Client: City & County of Honolulu
 Project/Site: RED-HILL

Job ID: 380-172825-1
 SDG: PFAS: Aiea Gulch Wells Pump 1/Pump 2, Aiea Wells
 Pumps 1&2 P2

Client Sample ID: FB AIEA WELLS PUMPS 1&2 (260)

Lab Sample ID: 380-172825-6

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			
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	537.1	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	537.1	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	537.1	Total/NA

Surrogate Summary

Client: City & County of Honolulu
 Project/Site: RED-HILL

Job ID: 380-172825-1
 SDG: PFAS: Aiea Gulch Wells Pump1/Pump 2, Aiea Wells
 Pumps 1&2 P2

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		d5NEFOS (70-130)	PFHxA (70-130)	PFDA (70-130)	GenX (70-130)
380-172825-1	AIEA GULCH WELLS PUMP 1	112	118	118	127
380-172825-1 MS	AIEA GULCH WELLS PUMP 1	116	120	118	123
380-172825-1 MSD	AIEA GULCH WELLS PUMP 1	120	123	121	125
380-172825-2	AIEA GULCH WELLS PUMP 2	111	118	109	120
380-172825-3	AIEA WELLS PUMPS 1&2 (260) P2	103	122	113	125
380-172825-4	FB AIEA GULCH WELLS PUMP 1	111	119	112	119
380-172825-5	FB AIEA GULCH WELLS PUMP 2	107	118	115	114
380-172825-6	FB AIEA WELLS PUMPS 1&2 (260)	114	116	119	115
LCS 380-175989/22-A	Lab Control Sample	111	121	118	115
MBL 380-175989/20-A	Method Blank	107	116	123	118
MRL 380-175989/21-A	Lab Control Sample	116	118	118	125

Surrogate Legend

d5NEFOS = d5-NEtFOSAA
 PFHxA = 13C2 PFHxA
 PFDA = 13C2 PFDA
 GenX = 13C3-GenX

Isotope Dilution Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump 1/Pump 2, Aiea Wells
Pumps 1&2 P2

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		HFPODA (50-200)	C6PFDA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	13C7PUA (50-200)	PFDaA (50-200)
380-172825-1	AIEA GULCH WELLS PUMP 1	105	112	115	114	118	118	111	106
380-172825-2	AIEA GULCH WELLS PUMP 2	101	110	109	110	113	113	111	105
380-172825-3	AIEA WELLS PUMPS 1&2 (260) P2	105	117	113	116	122	120	115	110
380-172825-3 MS	AIEA WELLS PUMPS 1&2 (260) P2	96	111	102	107	110	112	112	106
380-172825-3 MSD	AIEA WELLS PUMPS 1&2 (260) P2	106	113	115	113	118	116	110	108
380-172825-4	FB AIEA GULCH WELLS PUMP 1	97	112	107	111	113	115	112	104
380-172825-5	FB AIEA GULCH WELLS PUMP 2	98	104	107	107	112	110	108	101
380-172825-6	FB AIEA WELLS PUMPS 1&2 (260)	93	105	103	103	108	106	107	101
LCS 380-175979/21-A	Lab Control Sample	102	114	110	110	118	114	116	108
MBL 380-175979/19-A	Method Blank	98	113	113	110	114	115	111	104
MRL 380-175979/20-A	Lab Control Sample	91	106	104	103	109	110	108	100

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (50-200)	PFPeA (50-200)	C3PFBS (50-200)	C3PFHS (50-200)	C8PFOS (50-200)	42FTS (50-200)	62FTS (50-200)	82FTS (50-200)
380-172825-1	AIEA GULCH WELLS PUMP 1	118	118	122	122	119	139	134	116
380-172825-2	AIEA GULCH WELLS PUMP 2	111	111	121	120	114	137	128	110
380-172825-3	AIEA WELLS PUMPS 1&2 (260) P2	121	120	125	130	121	140	138	122
380-172825-3 MS	AIEA WELLS PUMPS 1&2 (260) P2	106	108	122	124	118	133	133	121
380-172825-3 MSD	AIEA WELLS PUMPS 1&2 (260) P2	115	120	120	121	118	138	137	119
380-172825-4	FB AIEA GULCH WELLS PUMP 1	113	115	116	119	114	131	128	114
380-172825-5	FB AIEA GULCH WELLS PUMP 2	114	113	120	120	117	132	129	113
380-172825-6	FB AIEA WELLS PUMPS 1&2 (260)	110	108	113	116	115	131	128	111
LCS 380-175979/21-A	Lab Control Sample	118	118	122	121	120	134	135	120
MBL 380-175979/19-A	Method Blank	119	116	121	121	118	134	123	112
MRL 380-175979/20-A	Lab Control Sample	112	109	117	119	114	136	127	116

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 PFDoA
- PFBA = 13C4 PFBA
- PFPeA = 13C5 PFPeA
- C3PFBS = 13C3 PFBS
- C3PFHS = 13C3 PFHxS
- C8PFOS = 13C8 PFOS

Isotope Dilution Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump1/Pump 2, Aiea Wells
Pumps 1&2 P2

42FTS = 13C2-4:2-FTS
62FTS = 13C2-6:2-FTS
82FTS = 13C2-8:2-FTS

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

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump 1/Pump 2, Aiea Wells
Pumps 1&2 P2

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

Lab Sample ID: MBL 380-175979/19-A
Matrix: Water
Analysis Batch: 176106

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 175979

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosfluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		09/24/25 07:51	09/24/25 21:40	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		09/24/25 07:51	09/24/25 21:40	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		09/24/25 07:51	09/24/25 21:40	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		09/24/25 07:51	09/24/25 21:40	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		09/24/25 07:51	09/24/25 21:40	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		09/24/25 07:51	09/24/25 21:40	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		09/24/25 07:51	09/24/25 21:40	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		09/24/25 07:51	09/24/25 21:40	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		09/24/25 07:51	09/24/25 21:40	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		09/24/25 07:51	09/24/25 21:40	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		09/24/25 07:51	09/24/25 21:40	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		09/24/25 07:51	09/24/25 21:40	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		09/24/25 07:51	09/24/25 21:40	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		09/24/25 07:51	09/24/25 21:40	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		09/24/25 07:51	09/24/25 21:40	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		09/24/25 07:51	09/24/25 21:40	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		09/24/25 07:51	09/24/25 21:40	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		09/24/25 07:51	09/24/25 21:40	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		09/24/25 07:51	09/24/25 21:40	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<0.25		2.0	ng/L		09/24/25 07:51	09/24/25 21:40	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		09/24/25 07:51	09/24/25 21:40	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		09/24/25 07:51	09/24/25 21:40	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		09/24/25 07:51	09/24/25 21:40	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		09/24/25 07:51	09/24/25 21:40	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		09/24/25 07:51	09/24/25 21:40	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	98		50 - 200	09/24/25 07:51	09/24/25 21:40	1
13C6 PFDA	113		50 - 200	09/24/25 07:51	09/24/25 21:40	1
13C5 PFHxA	113		50 - 200	09/24/25 07:51	09/24/25 21:40	1
13C4 PFHpA	110		50 - 200	09/24/25 07:51	09/24/25 21:40	1
13C8 PFOA	114		50 - 200	09/24/25 07:51	09/24/25 21:40	1
13C9 PFNA	115		50 - 200	09/24/25 07:51	09/24/25 21:40	1
13C7 PFUnA	111		50 - 200	09/24/25 07:51	09/24/25 21:40	1
13C2 PFDoA	104		50 - 200	09/24/25 07:51	09/24/25 21:40	1
13C4 PFBA	119		50 - 200	09/24/25 07:51	09/24/25 21:40	1
13C5 PFPeA	116		50 - 200	09/24/25 07:51	09/24/25 21:40	1
13C3 PFBS	121		50 - 200	09/24/25 07:51	09/24/25 21:40	1

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QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump 1/Pump 2, Aiea Wells
Pumps 1&2 P2

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

Lab Sample ID: MBL 380-175979/19-A

Matrix: Water

Analysis Batch: 176106

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 175979

<i>Isotope Dilution</i>	<i>MBL</i>	<i>MBL</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
	<i>%Recovery</i>	<i>Qualifier</i>				
13C3 PFHxS	121		50 - 200	09/24/25 07:51	09/24/25 21:40	1
13C8 PFOS	118		50 - 200	09/24/25 07:51	09/24/25 21:40	1
13C2-4:2-FTS	134		50 - 200	09/24/25 07:51	09/24/25 21:40	1
13C2-6:2-FTS	123		50 - 200	09/24/25 07:51	09/24/25 21:40	1
13C2-8:2-FTS	112		50 - 200	09/24/25 07:51	09/24/25 21:40	1

Lab Sample ID: LCS 380-175979/21-A

Matrix: Water

Analysis Batch: 176106

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 175979

<i>Analyte</i>	<i>Spike</i>	<i>LCS</i>	<i>LCS</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec</i>
	<i>Added</i>	<i>Result</i>	<i>Qualifier</i>			<i>Limits</i>	
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	60.4	51.3		ng/L		85	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	60.4	53.7		ng/L		89	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.4	55.3		ng/L		92	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.4	54.2		ng/L		90	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.4	55.2		ng/L		92	70 - 130
Perfluorodecanoic acid (PFDA)	60.4	51.8		ng/L		86	70 - 130
Perfluorododecanoic acid (PFDoA)	60.4	54.4		ng/L		90	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.4	54.5		ng/L		90	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.4	56.0		ng/L		93	70 - 130
Perfluorohexanoic acid (PFHxA)	60.4	55.4		ng/L		92	70 - 130
Perfluorononanoic acid (PFNA)	60.4	52.0		ng/L		86	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.4	53.5		ng/L		89	70 - 130
Perfluorooctanoic acid (PFOA)	60.4	52.0		ng/L		86	70 - 130
Perfluoroundecanoic acid (PFUnA)	60.4	51.1		ng/L		85	70 - 130
Perfluorobutanoic acid (PFBA)	60.4	54.4		ng/L		90	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.4	53.9		ng/L		89	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.4	56.1		ng/L		93	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.4	52.3		ng/L		87	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	60.4	55.5		ng/L		92	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	60.4	54.8		ng/L		91	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.4	51.3		ng/L		85	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.4	52.6		ng/L		87	70 - 130
Perfluoropentanoic acid (PFPeA)	60.4	51.3		ng/L		85	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump1/Pump 2, Aiea Wells
Pumps 1&2 P2

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

Lab Sample ID: LCS 380-175979/21-A
Matrix: Water
Analysis Batch: 176106

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 175979

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanesulfonic acid (PFHpS)	60.4	52.4		ng/L		87	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	60.4	54.9		ng/L		91	70 - 130

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C3 HFPO-DA	102		50 - 200
13C6 PFDA	114		50 - 200
13C5 PFHxA	110		50 - 200
13C4 PFHpA	110		50 - 200
13C8 PFOA	118		50 - 200
13C9 PFNA	114		50 - 200
13C7 PFUnA	116		50 - 200
13C2 PFDoA	108		50 - 200
13C4 PFBA	118		50 - 200
13C5 PFPeA	118		50 - 200
13C3 PFBS	122		50 - 200
13C3 PFHxS	121		50 - 200
13C8 PFOS	120		50 - 200
13C2-4:2-FTS	134		50 - 200
13C2-6:2-FTS	135		50 - 200
13C2-8:2-FTS	120		50 - 200

Lab Sample ID: MRL 380-175979/20-A
Matrix: Water
Analysis Batch: 176106

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 175979

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	1.86	J	ng/L		93	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	1.90	J	ng/L		95	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	1.90	J	ng/L		95	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	1.97	J	ng/L		98	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	1.95	J	ng/L		97	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	1.87	J	ng/L		93	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.05	J	ng/L		102	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.07	J	ng/L		104	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	1.89	J	ng/L		94	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	1.96	J	ng/L		98	50 - 150
Perfluorononanoic acid (PFNA)	2.00	1.90	J	ng/L		95	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	1.97	J	ng/L		98	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	1.89	J	ng/L		94	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump 1/Pump 2, Aiea Wells
Pumps 1&2 P2

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

Lab Sample ID: MRL 380-175979/20-A
Matrix: Water
Analysis Batch: 176106

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 175979

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	2.00	1.87	J	ng/L		93	50 - 150
Perfluorobutanoic acid (PFBA)	2.00	1.97	J	ng/L		98	50 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.00	1.84	J	ng/L		92	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.00	1.99	J	ng/L		99	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.00	1.82	J	ng/L		91	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.00	1.98	J	ng/L		99	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	2.00	1.87	J	ng/L		93	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.00	1.89	J	ng/L		94	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.00	1.79	J	ng/L		89	50 - 150
Perfluoropentanoic acid (PFPeA)	2.00	1.93	J	ng/L		96	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.00	1.90	J	ng/L		95	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.00	1.83	J	ng/L		91	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	Limits
13C3 HFPO-DA	91		50 - 200
13C6 PFDA	106		50 - 200
13C5 PFHxA	104		50 - 200
13C4 PFHpA	103		50 - 200
13C8 PFOA	109		50 - 200
13C9 PFNA	110		50 - 200
13C7 PFUnA	108		50 - 200
13C2 PFDoA	100		50 - 200
13C4 PFBA	112		50 - 200
13C5 PFPeA	109		50 - 200
13C3 PFBS	117		50 - 200
13C3 PFHxS	119		50 - 200
13C8 PFOS	114		50 - 200
13C2-4:2-FTS	136		50 - 200
13C2-6:2-FTS	127		50 - 200
13C2-8:2-FTS	116		50 - 200

Lab Sample ID: 380-172825-3 MS
Matrix: Water
Analysis Batch: 176106

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2
Prep Type: Total/NA
Prep Batch: 175979

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.5	54.2		ng/L		90	70 - 130

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump 1/Pump 2, Aiea Wells
Pumps 1&2 P2

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

Lab Sample ID: 380-172825-3 MS

Matrix: Water

Analysis Batch: 176106

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

Prep Type: Total/NA

Prep Batch: 175979

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				Limits
9-Chlorohexadecafluoro-3-oxan onane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.5	55.9		ng/L		92	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.5	54.7		ng/L		90	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.5	56.2		ng/L		93	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.5	57.0		ng/L		93	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.5	54.4		ng/L		90	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.5	57.6		ng/L		95	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.5	58.9		ng/L		97	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.5	57.8		ng/L		94	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		60.5	58.1		ng/L		95	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.5	52.6		ng/L		87	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.5	56.8		ng/L		93	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.5	55.6		ng/L		91	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.5	54.7		ng/L		90	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.5	56.2		ng/L		93	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.5	56.1		ng/L		93	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.5	57.9		ng/L		96	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.5	53.7		ng/L		89	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.5	56.5		ng/L		93	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.5	54.2		ng/L		90	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.5	51.4		ng/L		85	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.5	52.3		ng/L		86	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		60.5	53.4		ng/L		87	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.5	54.8		ng/L		91	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.5	52.5		ng/L		87	70 - 130

Isotope Dilution	MS MS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	96		50 - 200
13C6 PFDA	111		50 - 200
13C5 PFHxA	102		50 - 200
13C4 PFHpA	107		50 - 200
13C8 PFOA	110		50 - 200
13C9 PFNA	112		50 - 200
13C7 PFUnA	112		50 - 200
13C2 PFDoA	106		50 - 200

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump 1/Pump 2, Aiea Wells
Pumps 1&2 P2

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

Lab Sample ID: 380-172825-3 MS
Matrix: Water
Analysis Batch: 176106

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2
Prep Type: Total/NA
Prep Batch: 175979

<i>Isotope Dilution</i>	<i>MS MS</i>	<i>Limits</i>
<i>%Recovery</i>	<i>Qualifier</i>	
13C4 PFBA	106	50 - 200
13C5 PFPeA	108	50 - 200
13C3 PFBS	122	50 - 200
13C3 PFHxS	124	50 - 200
13C8 PFOS	118	50 - 200
13C2-4:2-FTS	133	50 - 200
13C2-6:2-FTS	133	50 - 200
13C2-8:2-FTS	121	50 - 200

Lab Sample ID: 380-172825-3 MSD
Matrix: Water
Analysis Batch: 176106

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2
Prep Type: Total/NA
Prep Batch: 175979

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MSD Result</i>	<i>MSD Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>	<i>RPD</i>	<i>RPD Limit</i>
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.6	52.5		ng/L		87	70 - 130	3	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.6	55.8		ng/L		92	70 - 130	0	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.6	57.7		ng/L		95	70 - 130	5	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.6	58.3		ng/L		96	70 - 130	4	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.6	57.8		ng/L		94	70 - 130	1	30
Perfluorodecanoic acid (PFDA)	<2.0		60.6	55.7		ng/L		92	70 - 130	2	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.6	56.6		ng/L		93	70 - 130	2	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.6	59.5		ng/L		97	70 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.6	59.4		ng/L		97	70 - 130	3	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.6	58.0		ng/L		94	70 - 130	0	30
Perfluorononanoic acid (PFNA)	<2.0		60.6	54.6		ng/L		90	70 - 130	4	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.6	57.3		ng/L		94	70 - 130	1	30
Perfluorooctanoic acid (PFOA)	<2.0		60.6	54.9		ng/L		90	70 - 130	1	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.6	56.9		ng/L		94	70 - 130	4	30
Perfluorobutanoic acid (PFBA)	<2.0		60.6	56.7		ng/L		94	70 - 130	1	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.6	56.0		ng/L		92	70 - 130	0	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.6	57.4		ng/L		95	70 - 130	1	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.6	56.0		ng/L		92	70 - 130	4	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.6	53.7		ng/L		89	70 - 130	5	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.6	55.6		ng/L		92	70 - 130	2	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.6	56.4		ng/L		93	70 - 130	9	30

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump 1/Pump 2, Aiea Wells
Pumps 1&2 P2

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Lab Sample ID: MBL 380-175989/20-A

Matrix: Water

Analysis Batch: 176197

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 175989

Analyte	MBL	MBL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Perfluorotridecanoic acid (PFTTrDA)	<0.36		2.0	ng/L		09/24/25 09:07	09/25/25 07:05	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		09/24/25 09:07	09/25/25 07:05	1
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		09/24/25 09:07	09/25/25 07:05	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		09/24/25 09:07	09/25/25 07:05	1

Surrogate	MBL	MBL	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
d5-NEtFOSAA	107		70 - 130	09/24/25 09:07	09/25/25 07:05	1
13C2 PFHxA	116		70 - 130	09/24/25 09:07	09/25/25 07:05	1
13C2 PFDA	123		70 - 130	09/24/25 09:07	09/25/25 07:05	1
13C3-GenX	118		70 - 130	09/24/25 09:07	09/25/25 07:05	1

Lab Sample ID: LCS 380-175989/22-A

Matrix: Water

Analysis Batch: 176197

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 175989

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec
		Result	Qualifier				Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	25.2	23.9		ng/L		95	70 - 130
Perfluorooctanesulfonic acid (PFOS)	25.2	24.0		ng/L		95	70 - 130
Perfluoroundecanoic acid (PFUnA)	25.2	23.1		ng/L		92	70 - 130
N-methylperfluorooctanesulfona midoacetic acid (NMeFOSAA)	25.2	22.9		ng/L		91	70 - 130
N-ethylperfluorooctanesulfonami doacetic acid (NEtFOSAA)	25.2	21.9		ng/L		87	70 - 130
Perfluorohexanoic acid (PFHxA)	25.2	24.6		ng/L		98	70 - 130
Perfluorododecanoic acid (PFDoA)	25.2	24.2		ng/L		96	70 - 130
Perfluorooctanoic acid (PFOA)	25.2	24.4		ng/L		97	70 - 130
Perfluorodecanoic acid (PFDA)	25.2	25.2		ng/L		100	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	25.2	23.6		ng/L		93	70 - 130
Perfluorobutanesulfonic acid (PFBS)	25.2	22.9		ng/L		91	70 - 130
Perfluoroheptanoic acid (PFHpA)	25.2	24.5		ng/L		97	70 - 130
Perfluorononanoic acid (PFNA)	25.2	24.5		ng/L		97	70 - 130
Perfluorotetradecanoic acid (PFTA)	25.2	23.6		ng/L		94	70 - 130
Perfluorotridecanoic acid (PFTTrDA)	25.2	25.3		ng/L		100	70 - 130
9-Chlorohexadecafluoro-3-oxan onane-1-sulfonic acid(9Cl-PF3ONS)	25.2	22.2		ng/L		88	70 - 130
11-Chloroeicosafluoro-3-oxaund ecane-1-sulfonic acid (11Cl-PF3OUdS)	25.2	21.1		ng/L		84	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	25.2	24.7		ng/L		98	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump 1/Pump 2, Aiea Wells
Pumps 1&2 P2

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
d5-NEtFOSAA	111		70 - 130
13C2 PFHxA	121		70 - 130
13C2 PFDA	118		70 - 130
13C3-GenX	115		70 - 130

Lab Sample ID: MRL 380-175989/21-A
Matrix: Water
Analysis Batch: 176197

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 175989

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorooctanesulfonic acid (PFOS)	2.01	2.07	J	ng/L		103	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	1.93	J	ng/L		96	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.01	1.98	J	ng/L		99	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.01	2.00	J	ng/L		99	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.22	J	ng/L		110	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	1.94	J	ng/L		96	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.07	J	ng/L		103	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.13	J	ng/L		106	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.04	J	ng/L		101	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	1.95	J	ng/L		97	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.15	J	ng/L		107	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.13	J	ng/L		106	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.01	1.82	J	ng/L		91	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.01	2.05	J	ng/L		102	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	1.86	J	ng/L		93	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.70	J	ng/L		84	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	2.06	J	ng/L		102	50 - 150

Surrogate	MRL MRL		Limits
	%Recovery	Qualifier	
d5-NEtFOSAA	116		70 - 130
13C2 PFHxA	118		70 - 130
13C2 PFDA	118		70 - 130
13C3-GenX	125		70 - 130

QC Sample Results

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump 1/Pump 2, Aiea Wells
Pumps 1&2 P2

Method: 537.1 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Lab Sample ID: 380-172825-1 MSD

Matrix: Water

Analysis Batch: 176197

Client Sample ID: AIEA GULCH WELLS PUMP 1

Prep Type: Total/NA

Prep Batch: 175989

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.2	25.9		ng/L		103	70 - 130	5	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		25.2	24.7		ng/L		98	70 - 130	3	30
Perfluorohexanoic acid (PFHxA)	<2.0		25.2	26.2		ng/L		101	70 - 130	2	30
Perfluorododecanoic acid (PFDoA)	<2.0		25.2	24.4		ng/L		97	70 - 130	1	30
Perfluorooctanoic acid (PFOA)	<2.0		25.2	25.5		ng/L		101	70 - 130	0	30
Perfluorodecanoic acid (PFDA)	<2.0		25.2	24.9		ng/L		99	70 - 130	0	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		25.2	25.9		ng/L		101	70 - 130	3	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		25.2	25.1		ng/L		100	70 - 130	2	30
Perfluoroheptanoic acid (PFHpA)	<2.0		25.2	26.1		ng/L		104	70 - 130	1	30
Perfluorononanoic acid (PFNA)	<2.0		25.2	25.5		ng/L		102	70 - 130	3	30
Perfluorotetradecanoic acid (PFTA)	<2.0		25.2	21.6		ng/L		86	70 - 130	4	30
Perfluorotridecanoic acid (PFTrDA)	<2.0		25.2	25.4		ng/L		101	70 - 130	1	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		25.2	22.9		ng/L		91	70 - 130	2	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid(11Cl-PF3OUdS)	<2.0		25.2	21.6		ng/L		86	70 - 130	0	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		25.2	26.1		ng/L		104	70 - 130	1	30
Surrogate		MSD	MSD								
	%Recovery	Qualifier	Limits								
d5-NEtFOSAA	120		70 - 130								
13C2 PFHxA	123		70 - 130								
13C2 PFDA	121		70 - 130								
13C3-GenX	125		70 - 130								

QC Association Summary

Client: City & County of Honolulu
 Project/Site: RED-HILL

Job ID: 380-172825-1
 SDG: PFAS: Aiea Gulch Wells Pump 1/Pump 2, Aiea Wells
 Pumps 1&2 P2

LCMS

Prep Batch: 175979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-172825-1	AIEA GULCH WELLS PUMP 1	Total/NA	Water	533	
380-172825-2	AIEA GULCH WELLS PUMP 2	Total/NA	Water	533	
380-172825-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Water	533	
380-172825-4	FB AIEA GULCH WELLS PUMP 1	Total/NA	Water	533	
380-172825-5	FB AIEA GULCH WELLS PUMP 2	Total/NA	Water	533	
380-172825-6	FB AIEA WELLS PUMPS 1&2 (260)	Total/NA	Water	533	
MBL 380-175979/19-A	Method Blank	Total/NA	Water	533	
LCS 380-175979/21-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-175979/20-A	Lab Control Sample	Total/NA	Water	533	
380-172825-3 MS	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Water	533	
380-172825-3 MSD	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Water	533	

Prep Batch: 175989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-172825-1	AIEA GULCH WELLS PUMP 1	Total/NA	Water	537.1 DW	
380-172825-2	AIEA GULCH WELLS PUMP 2	Total/NA	Water	537.1 DW	
380-172825-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Water	537.1 DW	
380-172825-4	FB AIEA GULCH WELLS PUMP 1	Total/NA	Water	537.1 DW	
380-172825-5	FB AIEA GULCH WELLS PUMP 2	Total/NA	Water	537.1 DW	
380-172825-6	FB AIEA WELLS PUMPS 1&2 (260)	Total/NA	Water	537.1 DW	
MBL 380-175989/20-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-175989/22-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-175989/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-172825-1 MS	AIEA GULCH WELLS PUMP 1	Total/NA	Water	537.1 DW	
380-172825-1 MSD	AIEA GULCH WELLS PUMP 1	Total/NA	Water	537.1 DW	

Analysis Batch: 176106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-172825-1	AIEA GULCH WELLS PUMP 1	Total/NA	Water	533	175979
380-172825-2	AIEA GULCH WELLS PUMP 2	Total/NA	Water	533	175979
380-172825-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Water	533	175979
380-172825-4	FB AIEA GULCH WELLS PUMP 1	Total/NA	Water	533	175979
380-172825-5	FB AIEA GULCH WELLS PUMP 2	Total/NA	Water	533	175979
380-172825-6	FB AIEA WELLS PUMPS 1&2 (260)	Total/NA	Water	533	175979
MBL 380-175979/19-A	Method Blank	Total/NA	Water	533	175979
LCS 380-175979/21-A	Lab Control Sample	Total/NA	Water	533	175979
MRL 380-175979/20-A	Lab Control Sample	Total/NA	Water	533	175979
380-172825-3 MS	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Water	533	175979
380-172825-3 MSD	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Water	533	175979

Analysis Batch: 176197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-172825-1	AIEA GULCH WELLS PUMP 1	Total/NA	Water	537.1	175989
380-172825-2	AIEA GULCH WELLS PUMP 2	Total/NA	Water	537.1	175989
380-172825-3	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Water	537.1	175989
380-172825-4	FB AIEA GULCH WELLS PUMP 1	Total/NA	Water	537.1	175989
380-172825-5	FB AIEA GULCH WELLS PUMP 2	Total/NA	Water	537.1	175989
380-172825-6	FB AIEA WELLS PUMPS 1&2 (260)	Total/NA	Water	537.1	175989
MBL 380-175989/20-A	Method Blank	Total/NA	Water	537.1	175989
LCS 380-175989/22-A	Lab Control Sample	Total/NA	Water	537.1	175989

QC Association Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump1/Pump 2, Aiea Wells
Pumps 1&2 P2

LCMS (Continued)

Analysis Batch: 176197 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 380-175989/21-A	Lab Control Sample	Total/NA	Water	537.1	175989
380-172825-1 MS	AIEA GULCH WELLS PUMP 1	Total/NA	Water	537.1	175989
380-172825-1 MSD	AIEA GULCH WELLS PUMP 1	Total/NA	Water	537.1	175989

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Lab Chronicle

Client: City & County of Honolulu
 Project/Site: RED-HILL

Job ID: 380-172825-1
 SDG: PFAS: Aiea Gulch Wells Pump 1/Pump 2, Aiea Wells
 Pumps 1&2 P2

Client Sample ID: AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-172825-1

Date Collected: 09/22/25 10:40
 Date Received: 09/23/25 10:20

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			175979	XTD8	EA POM	09/24/25 07:51
Total/NA	Analysis	533		1	176106	Y5FM	EA POM	09/24/25 23:16
Total/NA	Prep	537.1 DW			175989	L9UA	EA POM	09/24/25 09:07
Total/NA	Analysis	537.1		1	176197	SZ9R	EA POM	09/25/25 07:34

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-172825-2

Date Collected: 09/22/25 10:58
 Date Received: 09/23/25 10:20

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			175979	XTD8	EA POM	09/24/25 07:51
Total/NA	Analysis	533		1	176106	Y5FM	EA POM	09/24/25 23:27
Total/NA	Prep	537.1 DW			175989	L9UA	EA POM	09/24/25 09:07
Total/NA	Analysis	537.1		1	176197	SZ9R	EA POM	09/25/25 08:31

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2

Lab Sample ID: 380-172825-3

Date Collected: 09/22/25 11:23
 Date Received: 09/23/25 10:20

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			175979	XTD8	EA POM	09/24/25 07:51
Total/NA	Analysis	533		1	176106	Y5FM	EA POM	09/24/25 22:12
Total/NA	Prep	537.1 DW			175989	L9UA	EA POM	09/24/25 09:07
Total/NA	Analysis	537.1		1	176197	SZ9R	EA POM	09/25/25 08:41

Client Sample ID: FB AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-172825-4

Date Collected: 09/22/25 10:40
 Date Received: 09/23/25 10:20

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			175979	XTD8	EA POM	09/24/25 07:51
Total/NA	Analysis	533		1	176106	Y5FM	EA POM	09/24/25 23:38
Total/NA	Prep	537.1 DW			175989	L9UA	EA POM	09/24/25 09:07
Total/NA	Analysis	537.1		1	176197	SZ9R	EA POM	09/25/25 08:50

Client Sample ID: FB AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-172825-5

Date Collected: 09/22/25 10:58
 Date Received: 09/23/25 10:20

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			175979	XTD8	EA POM	09/24/25 07:51
Total/NA	Analysis	533		1	176106	Y5FM	EA POM	09/24/25 23:49
Total/NA	Prep	537.1 DW			175989	L9UA	EA POM	09/24/25 09:07
Total/NA	Analysis	537.1		1	176197	SZ9R	EA POM	09/25/25 09:00

Lab Chronicle

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump1/Pump 2, Aiea Wells
Pumps 1&2 P2

Client Sample ID: FB AIEA WELLS PUMPS 1&2 (260)

Lab Sample ID: 380-172825-6

Date Collected: 09/22/25 11:23

Matrix: Water

Date Received: 09/23/25 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			175979	XTD8	EA POM	09/24/25 07:51
Total/NA	Analysis	533		1	176106	Y5FM	EA POM	09/24/25 23:59
Total/NA	Prep	537.1 DW			175989	L9UA	EA POM	09/24/25 09:07
Total/NA	Analysis	537.1		1	176197	SZ9R	EA POM	09/25/25 09:09

Laboratory References:

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

Accreditation/Certification Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump1/Pump 2, Aiea Wells
Pumps 1&2 P2

Laboratory: Eurofins Eaton Analytical Pomona

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

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

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Method Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump1/Pump 2, Aiea Wells
Pumps 1&2 P2

Method	Method Description	Protocol	Laboratory
533	Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water	EPA	EA POM
537.1	Perfluorinated Alkyl Acids (LC/MS)	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 Eaton Analytical Pomona, 941 Corporate Center Drive, Pomona, CA 91768-2642, TEL (626)386-1100



Sample Summary

Client: City & County of Honolulu
Project/Site: RED-HILL

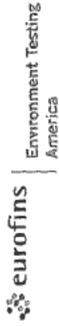
Job ID: 380-172825-1
SDG: PFAS: Aiea Gulch Wells Pump1/Pump 2, Aiea Wells
Pumps 1&2 P2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-172825-1	AIEA GULCH WELLS PUMP 1	Water	09/22/25 10:40	09/23/25 10:20	Hawaii
380-172825-2	AIEA GULCH WELLS PUMP 2	Water	09/22/25 10:58	09/23/25 10:20	Hawaii
380-172825-3	AIEA WELLS PUMPS 1&2 (260) P2	Water	09/22/25 11:23	09/23/25 10:20	Hawaii
380-172825-4	FB AIEA GULCH WELLS PUMP 1	Water	09/22/25 10:40	09/23/25 10:20	Hawaii
380-172825-5	FB AIEA GULCH WELLS PUMP 2	Water	09/22/25 10:58	09/23/25 10:20	Hawaii
380-172825-6	FB AIEA WELLS PUMPS 1&2 (260)	Water	09/22/25 11:23	09/23/25 10:20	Hawaii

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Monrovia, CA (Suite 100)
 750 Royal Oaks Drive Suite 100
 Monrovia CA 91016
 Phone (626) 386-1100

Chain of Custody Record



Environment Testing
 America

Client Information		Lab PM	380-172825 COC	COC No	380-2794-1-2757.2
Client Contact: Kirk Iwamoto		Lopez, Maria		Carrier: Tracking Note(s):	
Phone: +1 808 748 5840		E-Mail: Maria.Lopez@et.eurofins.us.com		State of Origin:	
Company: City & County of Honolulu		PWSID:		Page: Page 2 of 2	
Address: 630 South Beretania Street, Chemistry Lab				Job #:	
City: Honolulu					
State, Zip: HI 96843					
Phone: 808-748-5840 (tel)					
Email: kiwamoto@hbws.org					
Project Name: RED-HILL/HBWS sites Event Desc. RUSH Weekly Red Hill					
Project #: 38001111					
Site: S50W#					

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, BT=BTAB, A=ALV)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Subcontract (625 PAH Phys LL (EAL) + TICs)	8015B_GRO_LL - (MOD) GRO	8015B_DRO_LL_CS HNL Ranges C10-C24/C24-C38/C8	C18	825.2_PRC (MOD) 825plus PLUS TICs	837_1_DW_PRC 837 1 Full List	833 All Analytes	Analysis Requested	Special Instructions/Note
Aiea Gulch Wells Pump 1	22-Sep-2025	1040	G	Water	X	X									
Aiea Gulch Wells Pump 2	22-Sep-2025	1058	G	Water											
Aiea Wells Pumps 1&2 (260) P2	22-Sep-2025	1123	G	Water											
FB Aiea Gulch Wells Pump 1	22-Sep-2025	1040													
FB Aiea Gulch Wells Pump 2	22-Sep-2025	1058													
FB Aiea Wells Pumps 1&2 (260)	22-Sep-2025	1123													

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested I II III IV Other (specify)

Empty Kit Relinquished by: _____ Date: _____

Special Instructions/QC Requirements: 08845 8409 2778 ② 8845 8409 2789

Method of Shipment: FE0 6X ③ 8845 8409 2790

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Received by:	Company:	Date/Time:
<i>[Signature]</i>	HBWS	09/23/25 10:20
Received by:	Company:	Date/Time:
Received by:	Company:	Date/Time:

Custody Seals Intact: A Yes Δ No

Custody Seal No: _____

Color Temperature (°C) and Other Remarks: 45.1 02.9 0.0 = 2.9 ② 3.0 0.0 = 3.0 ③ 2.5 0.0 = 2.5 ④ 0.0 = 0.0

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Ver 0.1.0 (2012)

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-172825-1

SDG Number: PFAS: Aiea Gulch Wells Pump1/Pump 2, Aiea Wells Pumps 1&2 P2

Login Number: 172825

List Source: Eurofins Eaton Analytical Pomona

List Number: 1

Creator: Tran, Kristine

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").	N/A	
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	

