

ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

RED-HILL
Halawa Wells Units 1 & 2, Aiea Wells P2

JOB NUMBER

380-152545-2

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: 380-152545-2
SDG: Halawa Wells Units 1 & 2, Aiea Wells P2

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: 380-152545-2

Job ID: 380-152545-2

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Job Narrative 380-152545-2

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 5/28/2025 10:10 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.8°C and 1.0°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: RED-HILL

Job ID: 380-152545-2
SDG: Halawa Wells Units 1 & 2, Aiea Wells P2

**Client Sample ID: HALAWA WELLS UNITS 1 & 2
(331-206-TP065)**

Lab Sample ID: 380-152545-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	2.7		2.0		ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	2.0		2.0		ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.6		2.0		ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	2.5		2.0		ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.5		2.0		ng/L	1		EPA 537.1 V2	Total/NA
Perfluorohexanoic acid (PFHxA)	2.3		2.0		ng/L	1		EPA 537.1 V2	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.6		2.0		ng/L	1		EPA 537.1 V2	Total/NA

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-152545-3

No Detections.

**Client Sample ID: FB: HALAWA WELLS UNITS 1&2
(331-206-TP065)**

Lab Sample ID: 380-152545-5

No Detections.

Client Sample ID: FB:AIEA GULCH WELLS P2 (331-202-TP072)

Lab Sample ID: 380-152545-6

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: 380-152545-2
SDG: Halawa Wells Units 1 & 2, Aiea Wells P2

**Client Sample ID: HALAWA WELLS UNITS 1 & 2
(331-206-TP065)**

Lab Sample ID: 380-152545-2

Date Collected: 05/23/25 10:23

Matrix: Drinking Water

Date Received: 05/28/25 10:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 09:58	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 09:58	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 09:58	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 09:58	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 09:58	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 09:58	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 09:58	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 09:58	1
Perfluorohexanesulfonic acid (PFHxS)	2.7		2.0		ng/L		05/29/25 07:31	05/30/25 09:58	1
Perfluorohexanoic acid (PFHxA)	2.0		2.0		ng/L		05/29/25 07:31	05/30/25 09:58	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 09:58	1
Perfluorooctanesulfonic acid (PFOS)	2.6		2.0		ng/L		05/29/25 07:31	05/30/25 09:58	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 09:58	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 09:58	1
Perfluorobutanoic acid (PFBA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 09:58	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 09:58	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 09:58	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 09:58	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 09:58	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 09:58	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 09:58	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 09:58	1
Perfluoropentanoic acid (PFPeA)	2.5		2.0		ng/L		05/29/25 07:31	05/30/25 09:58	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 09:58	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 09:58	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	89		50 - 200	05/29/25 07:31	05/30/25 09:58	1
13C6 PFDA	96		50 - 200	05/29/25 07:31	05/30/25 09:58	1
13C5 PFHxA	93		50 - 200	05/29/25 07:31	05/30/25 09:58	1
13C4 PFHpA	97		50 - 200	05/29/25 07:31	05/30/25 09:58	1
13C8 PFOA	96		50 - 200	05/29/25 07:31	05/30/25 09:58	1
13C9 PFNA	99		50 - 200	05/29/25 07:31	05/30/25 09:58	1
13C7 PFUnA	92		50 - 200	05/29/25 07:31	05/30/25 09:58	1
13C2 PFDoA	94		50 - 200	05/29/25 07:31	05/30/25 09:58	1
13C4 PFBA	94		50 - 200	05/29/25 07:31	05/30/25 09:58	1
13C5 PFPeA	104		50 - 200	05/29/25 07:31	05/30/25 09:58	1
13C3 PFBS	99		50 - 200	05/29/25 07:31	05/30/25 09:58	1

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Client Sample Results

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

Job ID: 380-152545-2
SDG: Halawa Wells Units 1 & 2, Aiea Wells P2

**Client Sample ID: HALAWA WELLS UNITS 1 & 2
(331-206-TP065)**

Lab Sample ID: 380-152545-2

Date Collected: 05/23/25 10:23

Matrix: Drinking Water

Date Received: 05/28/25 10:10

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFHxS	100		50 - 200	05/29/25 07:31	05/30/25 09:58	1
13C8 PFOS	102		50 - 200	05/29/25 07:31	05/30/25 09:58	1
13C2-4:2-FTS	111		50 - 200	05/29/25 07:31	05/30/25 09:58	1
13C2-6:2-FTS	151		50 - 200	05/29/25 07:31	05/30/25 09:58	1
13C2-8:2-FTS	109		50 - 200	05/29/25 07:31	05/30/25 09:58	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:45	1
Perfluorooctanesulfonic acid (PFOS)	2.5		2.0		ng/L		05/28/25 20:30	05/29/25 07:45	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:45	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:45	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:45	1
Perfluorohexanoic acid (PFHxA)	2.3		2.0		ng/L		05/28/25 20:30	05/29/25 07:45	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:45	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:45	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:45	1
Perfluorohexanesulfonic acid (PFHxS)	2.6		2.0		ng/L		05/28/25 20:30	05/29/25 07:45	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:45	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:45	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:45	1
Perfluorotetradecanoic acid (PFTA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:45	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:45	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:45	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:45	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	116		70 - 130				05/28/25 20:30	05/29/25 07:45	1
13C2 PFHxA	116		70 - 130				05/28/25 20:30	05/29/25 07:45	1
13C2 PFDA	111		70 - 130				05/28/25 20:30	05/29/25 07:45	1
13C3-GenX	115		70 - 130				05/28/25 20:30	05/29/25 07:45	1

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-152545-3

Date Collected: 05/23/25 10:41

Matrix: Drinking Water

Date Received: 05/28/25 10:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:07	1

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Client Sample Results

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

Job ID: 380-152545-2
SDG: Halawa Wells Units 1 & 2, Aiea Wells P2

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-152545-3

Date Collected: 05/23/25 10:41

Matrix: Drinking Water

Date Received: 05/28/25 10:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:07	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:07	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:07	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:07	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:07	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:07	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:07	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:07	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:07	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:07	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:07	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:07	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:07	1
Perfluorobutanoic acid (PFBA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:07	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:07	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:07	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:07	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:07	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:07	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:07	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:07	1
Perfluoropentanoic acid (PFPeA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:07	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:07	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:07	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	70		50 - 200	05/29/25 07:31	05/30/25 10:07	1
13C6 PFDA	78		50 - 200	05/29/25 07:31	05/30/25 10:07	1
13C5 PFHxA	73		50 - 200	05/29/25 07:31	05/30/25 10:07	1
13C4 PFHpA	79		50 - 200	05/29/25 07:31	05/30/25 10:07	1
13C8 PFOA	79		50 - 200	05/29/25 07:31	05/30/25 10:07	1
13C9 PFNA	76		50 - 200	05/29/25 07:31	05/30/25 10:07	1
13C7 PFUnA	77		50 - 200	05/29/25 07:31	05/30/25 10:07	1
13C2 PFDoA	79		50 - 200	05/29/25 07:31	05/30/25 10:07	1
13C4 PFBA	80		50 - 200	05/29/25 07:31	05/30/25 10:07	1
13C5 PFPeA	83		50 - 200	05/29/25 07:31	05/30/25 10:07	1
13C3 PFBS	97		50 - 200	05/29/25 07:31	05/30/25 10:07	1
13C3 PFHxS	102		50 - 200	05/29/25 07:31	05/30/25 10:07	1
13C8 PFOS	96		50 - 200	05/29/25 07:31	05/30/25 10:07	1
13C2-4:2-FTS	107		50 - 200	05/29/25 07:31	05/30/25 10:07	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-152545-2
SDG: Halawa Wells Units 1 & 2, Aiea Wells P2

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-152545-3

Date Collected: 05/23/25 10:41

Matrix: Drinking Water

Date Received: 05/28/25 10:10

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2-6:2-FTS	132		50 - 200	05/29/25 07:31	05/30/25 10:07	1
13C2-8:2-FTS	102		50 - 200	05/29/25 07:31	05/30/25 10:07	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:54	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:54	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:54	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:54	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:54	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:54	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:54	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:54	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:54	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:54	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:54	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:54	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:54	1
Perfluorotetradecanoic acid (PFTA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:54	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:54	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:54	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:54	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 07:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	105		70 - 130				05/28/25 20:30	05/29/25 07:54	1
13C2 PFHxA	107		70 - 130				05/28/25 20:30	05/29/25 07:54	1
13C2 PFDA	106		70 - 130				05/28/25 20:30	05/29/25 07:54	1
13C3-GenX	106		70 - 130				05/28/25 20:30	05/29/25 07:54	1

**Client Sample ID: FB: HALAWA WELLS UNITS 1&2
(331-206-TP065)**

Lab Sample ID: 380-152545-5

Date Collected: 05/23/25 10:23

Matrix: Drinking Water

Date Received: 05/28/25 10:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:26	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:26	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:26	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:26	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-152545-2
SDG: Halawa Wells Units 1 & 2, Aiea Wells P2

**Client Sample ID: FB: HALAWA WELLS UNITS 1&2
(331-206-TP065)**

Lab Sample ID: 380-152545-5

Date Collected: 05/23/25 10:23

Matrix: Drinking Water

Date Received: 05/28/25 10:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:26	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:26	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:26	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:26	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:26	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:26	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:26	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:26	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:26	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:26	1
Perfluorobutanoic acid (PFBA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:26	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:26	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:26	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:26	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:26	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:26	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:26	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:26	1
Perfluoropentanoic acid (PFPeA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:26	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:26	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:26	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	78		50 - 200	05/29/25 07:31	05/30/25 10:26	1
13C6 PFDA	93		50 - 200	05/29/25 07:31	05/30/25 10:26	1
13C5 PFHxA	87		50 - 200	05/29/25 07:31	05/30/25 10:26	1
13C4 PFHpA	90		50 - 200	05/29/25 07:31	05/30/25 10:26	1
13C8 PFOA	92		50 - 200	05/29/25 07:31	05/30/25 10:26	1
13C9 PFNA	89		50 - 200	05/29/25 07:31	05/30/25 10:26	1
13C7 PFUnA	90		50 - 200	05/29/25 07:31	05/30/25 10:26	1
13C2 PFDoA	88		50 - 200	05/29/25 07:31	05/30/25 10:26	1
13C4 PFBA	88		50 - 200	05/29/25 07:31	05/30/25 10:26	1
13C5 PFPeA	92		50 - 200	05/29/25 07:31	05/30/25 10:26	1
13C3 PFBS	99		50 - 200	05/29/25 07:31	05/30/25 10:26	1
13C3 PFHxS	101		50 - 200	05/29/25 07:31	05/30/25 10:26	1
13C8 PFOS	100		50 - 200	05/29/25 07:31	05/30/25 10:26	1
13C2-4:2-FTS	106		50 - 200	05/29/25 07:31	05/30/25 10:26	1
13C2-6:2-FTS	102		50 - 200	05/29/25 07:31	05/30/25 10:26	1
13C2-8:2-FTS	91		50 - 200	05/29/25 07:31	05/30/25 10:26	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-152545-2
SDG: Halawa Wells Units 1 & 2, Aiea Wells P2

**Client Sample ID: FB: HALAWA WELLS UNITS 1&2
(331-206-TP065)**

Lab Sample ID: 380-152545-5

Date Collected: 05/23/25 10:23

Matrix: Drinking Water

Date Received: 05/28/25 10:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:13	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:13	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:13	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:13	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:13	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:13	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:13	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:13	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:13	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:13	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:13	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:13	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:13	1
Perfluorotetradecanoic acid (PFTA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:13	1
Perfluorotridecanoic acid (PFTTrDA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:13	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:13	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:13	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	103		70 - 130	05/28/25 20:30	05/29/25 08:13	1
13C2 PFHxA	113		70 - 130	05/28/25 20:30	05/29/25 08:13	1
13C2 PFDA	111		70 - 130	05/28/25 20:30	05/29/25 08:13	1
13C3-GenX	108		70 - 130	05/28/25 20:30	05/29/25 08:13	1

Client Sample ID: FB:AIEA GULCH WELLS P2 (331-202-TP072)

Lab Sample ID: 380-152545-6

Date Collected: 05/23/25 10:41

Matrix: Drinking Water

Date Received: 05/28/25 10:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:36	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:36	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:36	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:36	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:36	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:36	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:36	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:36	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:36	1
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:36	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-152545-2
SDG: Halawa Wells Units 1 & 2, Aiea Wells P2

Client Sample ID: FB:AIEA GULCH WELLS P2 (331-202-TP072)

Lab Sample ID: 380-152545-6

Date Collected: 05/23/25 10:41

Matrix: Drinking Water

Date Received: 05/28/25 10:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:36	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:36	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:36	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:36	1
Perfluorobutanoic acid (PFBA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:36	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:36	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:36	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:36	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:36	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:36	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:36	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:36	1
Perfluoropentanoic acid (PFPeA)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:36	1
Perfluoroheptanesulfonic acid (PFHpS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:36	1
Perfluoropentanesulfonic acid (PFPeS)	ND		2.0		ng/L		05/29/25 07:31	05/30/25 10:36	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	73		50 - 200				05/29/25 07:31	05/30/25 10:36	1
13C6 PFDA	87		50 - 200				05/29/25 07:31	05/30/25 10:36	1
13C5 PFHxA	82		50 - 200				05/29/25 07:31	05/30/25 10:36	1
13C4 PFHpA	85		50 - 200				05/29/25 07:31	05/30/25 10:36	1
13C8 PFOA	83		50 - 200				05/29/25 07:31	05/30/25 10:36	1
13C9 PFNA	86		50 - 200				05/29/25 07:31	05/30/25 10:36	1
13C7 PFUnA	88		50 - 200				05/29/25 07:31	05/30/25 10:36	1
13C2 PFDoA	94		50 - 200				05/29/25 07:31	05/30/25 10:36	1
13C4 PFBA	86		50 - 200				05/29/25 07:31	05/30/25 10:36	1
13C5 PFPeA	88		50 - 200				05/29/25 07:31	05/30/25 10:36	1
13C3 PFBS	101		50 - 200				05/29/25 07:31	05/30/25 10:36	1
13C3 PFHxS	102		50 - 200				05/29/25 07:31	05/30/25 10:36	1
13C8 PFOS	102		50 - 200				05/29/25 07:31	05/30/25 10:36	1
13C2-4:2-FTS	124		50 - 200				05/29/25 07:31	05/30/25 10:36	1
13C2-6:2-FTS	108		50 - 200				05/29/25 07:31	05/30/25 10:36	1
13C2-8:2-FTS	93		50 - 200				05/29/25 07:31	05/30/25 10:36	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:23	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:23	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:23	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:23	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:23	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-152545-2
SDG: Halawa Wells Units 1 & 2, Aiea Wells P2

Client Sample ID: FB:AIEA GULCH WELLS P2 (331-202-TP072)

Lab Sample ID: 380-152545-6

Date Collected: 05/23/25 10:41

Matrix: Drinking Water

Date Received: 05/28/25 10:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:23	1
Perfluorododecanoic acid (PFDoA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:23	1
Perfluorooctanoic acid (PFOA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:23	1
Perfluorodecanoic acid (PFDA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:23	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:23	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:23	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:23	1
Perfluorononanoic acid (PFNA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:23	1
Perfluorotetradecanoic acid (PFTA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:23	1
Perfluorotridecanoic acid (PFTrDA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:23	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:23	1
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:23	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND		2.0		ng/L		05/28/25 20:30	05/29/25 08:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	112		70 - 130				05/28/25 20:30	05/29/25 08:23	1
13C2 PFHxA	125		70 - 130				05/28/25 20:30	05/29/25 08:23	1
13C2 PFDA	117		70 - 130				05/28/25 20:30	05/29/25 08:23	1
13C3-GenX	121		70 - 130				05/28/25 20:30	05/29/25 08:23	1

Surrogate Summary

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

Job ID: 380-152545-2
SDG: Halawa Wells Units 1 & 2, Aiea Wells P2

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

Matrix: Drinking 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)
380-152545-2	HALAWA WELLS UNITS 1 & 2 (	116	116	111	115
380-152545-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	105	107	106	106
380-152545-5	FB: HALAWA WELLS UNITS 1&2 (331-206-TP065)	103	113	111	108
380-152545-6	FB:AIEA GULCH WELLS P2 (331-202-TP072)	112	125	117	121

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: 380-152545-2
SDG: Halawa Wells Units 1 & 2, Aiea Wells P2

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

Matrix: Drinking 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)
380-152545-2	HALAWA WELLS UNITS 1 & 2 (	89	96	93	97	96	99	92	94
380-152545-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	70	78	73	79	79	76	77	79
380-152545-5	FB: HALAWA WELLS UNITS 1&2 (331-206-TP065)	78	93	87	90	92	89	90	88
380-152545-6	FB:AIEA GULCH WELLS P2 (331-202-TP072)	73	87	82	85	83	86	88	94

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)
380-152545-2	HALAWA WELLS UNITS 1 & 2 (	94	104	99	100	102	111	151	109
380-152545-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	80	83	97	102	96	107	132	102
380-152545-5	FB: HALAWA WELLS UNITS 1&2 (331-206-TP065)	88	92	99	101	100	106	102	91
380-152545-6	FB:AIEA GULCH WELLS P2 (331-202-TP072)	86	88	101	102	102	124	108	93

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 Association Summary

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

Job ID: 380-152545-2
SDG: Halawa Wells Units 1 & 2, Aiea Wells P2

LCMS

Prep Batch: 154852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-152545-2	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	537.1 DW	
380-152545-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	537.1 DW	
380-152545-5	FB: HALAWA WELLS UNITS 1&2 (331-206-TP06	Total/NA	Drinking Water	537.1 DW	
380-152545-6	FB:AIEA GULCH WELLS P2 (331-202-TP072)	Total/NA	Drinking Water	537.1 DW	

Analysis Batch: 154919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-152545-2	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	EPA 537.1 V2	154852
380-152545-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	EPA 537.1 V2	154852
380-152545-5	FB: HALAWA WELLS UNITS 1&2 (331-206-TP06	Total/NA	Drinking Water	EPA 537.1 V2	154852
380-152545-6	FB:AIEA GULCH WELLS P2 (331-202-TP072)	Total/NA	Drinking Water	EPA 537.1 V2	154852

Prep Batch: 154923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-152545-2	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	533	
380-152545-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	533	
380-152545-5	FB: HALAWA WELLS UNITS 1&2 (331-206-TP06	Total/NA	Drinking Water	533	
380-152545-6	FB:AIEA GULCH WELLS P2 (331-202-TP072)	Total/NA	Drinking Water	533	

Analysis Batch: 155143

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-152545-2	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	533	154923
380-152545-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	533	154923
380-152545-5	FB: HALAWA WELLS UNITS 1&2 (331-206-TP06	Total/NA	Drinking Water	533	154923
380-152545-6	FB:AIEA GULCH WELLS P2 (331-202-TP072)	Total/NA	Drinking Water	533	154923

Lab Chronicle

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

Job ID: 380-152545-2
SDG: Halawa Wells Units 1 & 2, Aiea Wells P2

**Client Sample ID: HALAWA WELLS UNITS 1 & 2
(331-206-TP065)**

Lab Sample ID: 380-152545-2

Date Collected: 05/23/25 10:23

Matrix: Drinking Water

Date Received: 05/28/25 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			154923	XTD8	EA POM	05/29/25 07:31
Total/NA	Analysis	533		1	155143	Y5FM	EA POM	05/30/25 09:58
Total/NA	Prep	537.1 DW			154852	N8NE	EA POM	05/28/25 20:30
Total/NA	Analysis	EPA 537.1 V2		1	154919	SZ9R	EA POM	05/29/25 07:45

**Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)**

Lab Sample ID: 380-152545-3

Date Collected: 05/23/25 10:41

Matrix: Drinking Water

Date Received: 05/28/25 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			154923	XTD8	EA POM	05/29/25 07:31
Total/NA	Analysis	533		1	155143	Y5FM	EA POM	05/30/25 10:07
Total/NA	Prep	537.1 DW			154852	N8NE	EA POM	05/28/25 20:30
Total/NA	Analysis	EPA 537.1 V2		1	154919	SZ9R	EA POM	05/29/25 07:54

**Client Sample ID: FB: HALAWA WELLS UNITS 1&2
(331-206-TP065)**

Lab Sample ID: 380-152545-5

Date Collected: 05/23/25 10:23

Matrix: Drinking Water

Date Received: 05/28/25 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			154923	XTD8	EA POM	05/29/25 07:31
Total/NA	Analysis	533		1	155143	Y5FM	EA POM	05/30/25 10:26
Total/NA	Prep	537.1 DW			154852	N8NE	EA POM	05/28/25 20:30
Total/NA	Analysis	EPA 537.1 V2		1	154919	SZ9R	EA POM	05/29/25 08:13

Client Sample ID: FB:AIEA GULCH WELLS P2 (331-202-TP072)

Lab Sample ID: 380-152545-6

Date Collected: 05/23/25 10:41

Matrix: Drinking Water

Date Received: 05/28/25 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			154923	XTD8	EA POM	05/29/25 07:31
Total/NA	Analysis	533		1	155143	Y5FM	EA POM	05/30/25 10:36
Total/NA	Prep	537.1 DW			154852	N8NE	EA POM	05/28/25 20:30
Total/NA	Analysis	EPA 537.1 V2		1	154919	SZ9R	EA POM	05/29/25 08:23

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: 380-152545-2
SDG: Halawa Wells Units 1 & 2, Aiea Wells 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
USEPA UCMR 5	US Federal Programs	CA00006	12-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
533	533	Drinking Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
533	533	Drinking Water	1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)
533	533	Drinking Water	1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)
533	533	Drinking Water	1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)
533	533	Drinking Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
533	533	Drinking Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)
533	533	Drinking Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)
533	533	Drinking Water	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)
533	533	Drinking Water	Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)
533	533	Drinking Water	Perfluoro-3-methoxypropanoic acid (PFMPA)
533	533	Drinking Water	Perfluoro-4-methoxybutanoic acid (PFMBA)
533	533	Drinking Water	Perfluorobutanesulfonic acid (PFBS)
533	533	Drinking Water	Perfluorobutanoic acid (PFBA)
533	533	Drinking Water	Perfluorodecanoic acid (PFDA)
533	533	Drinking Water	Perfluorododecanoic acid (PFDoA)
533	533	Drinking Water	Perfluoroheptanesulfonic acid (PFHpS)
533	533	Drinking Water	Perfluoroheptanoic acid (PFHpA)
533	533	Drinking Water	Perfluorohexanesulfonic acid (PFHxS)
533	533	Drinking Water	Perfluorohexanoic acid (PFHxA)
533	533	Drinking Water	Perfluorononanoic acid (PFNA)
533	533	Drinking Water	Perfluorooctanesulfonic acid (PFOS)
533	533	Drinking Water	Perfluorooctanoic acid (PFOA)
533	533	Drinking Water	Perfluoropentanesulfonic acid (PFPeS)
533	533	Drinking Water	Perfluoropentanoic acid (PFPeA)
533	533	Drinking Water	Perfluoroundecanoic acid (PFUnA)
EPA 537.1 V2	537.1 DW	Drinking Water	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
EPA 537.1 V2	537.1 DW	Drinking Water	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)
EPA 537.1 V2	537.1 DW	Drinking Water	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)
EPA 537.1 V2	537.1 DW	Drinking Water	Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)
EPA 537.1 V2	537.1 DW	Drinking Water	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)
EPA 537.1 V2	537.1 DW	Drinking Water	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)
EPA 537.1 V2	537.1 DW	Drinking Water	Perfluorobutanesulfonic acid (PFBS)

Eurofins Eaton Analytical Pomona

Accreditation/Certification Summary

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

Job ID: 380-152545-2
SDG: Halawa Wells Units 1 & 2, Aiea Wells P2

Laboratory: Eurofins Eaton Analytical Pomona (Continued)

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
EPA 537.1 V2	537.1 DW	Drinking Water	Perfluorodecanoic acid (PFDA)
EPA 537.1 V2	537.1 DW	Drinking Water	Perfluorododecanoic acid (PFDoA)
EPA 537.1 V2	537.1 DW	Drinking Water	Perfluoroheptanoic acid (PFHpA)
EPA 537.1 V2	537.1 DW	Drinking Water	Perfluorohexanesulfonic acid (PFHxS)
EPA 537.1 V2	537.1 DW	Drinking Water	Perfluorohexanoic acid (PFHxA)
EPA 537.1 V2	537.1 DW	Drinking Water	Perfluorononanoic acid (PFNA)
EPA 537.1 V2	537.1 DW	Drinking Water	Perfluorooctanesulfonic acid (PFOS)
EPA 537.1 V2	537.1 DW	Drinking Water	Perfluorooctanoic acid (PFOA)
EPA 537.1 V2	537.1 DW	Drinking Water	Perfluorotetradecanoic acid (PFTA)
EPA 537.1 V2	537.1 DW	Drinking Water	Perfluorotridecanoic acid (PFTTrDA)
EPA 537.1 V2	537.1 DW	Drinking Water	Perfluoroundecanoic acid (PFUnA)

Method Summary

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

Job ID: 380-152545-2
SDG: Halawa Wells Units 1 & 2, Aiea Wells P2

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 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: 380-152545-2
SDG: Halawa Wells Units 1 & 2, Aiea Wells P2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-152545-2	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Drinking Water	05/23/25 10:23	05/28/25 10:10
380-152545-3	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Drinking Water	05/23/25 10:41	05/28/25 10:10
380-152545-5	FB: HALAWA WELLS UNITS 1&2 (331-206-TP065)	Drinking Water	05/23/25 10:23	05/28/25 10:10
380-152545-6	FB:AIEA GULCH WELLS P2 (331-202-TP072)	Drinking Water	05/23/25 10:41	05/28/25 10:10

Eurofins Eaton Analytical Pomona

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

Chain of Custody Record



Environment Testing

Client Information		Sampler: bailey		Lab PM: Arada, Rachelle		Camer Tracking No(s):		COC No: 380-79887-23449.5															
Client Contact: Mr. Erwin Kawata		Phone: +1 8087485840		E-Mail: Rachelle.Arada@et.eurofinsus.com		State of Origin:		Page: Page 5 of 7															
Company: City & County of Honolulu		PWSID:		Analysis Requested						Job #:													
Address: 630 South Beretania Street Public Service Bldg. Room 310		Due Date Requested:		Field Filled Sample (Yes or No) Perform Hg/MSD (Yes or No) 637.1 DW_PREC - 637.1 Full List PFAS_HazIndex - Local Method 633 - All Analytes Total Number of Containers						Preservation Codes: Y - Trizma N - None I - NH4 Acetate													
City: Honolulu		TAT Requested (days):								Other:													
State, Zip: HI, 96843		Compliance Project: ☐ Yes ☐ No								380-152545 COC													
Phone: 808-748-5091(Tel)		PO #: C20525101 exp 05312023																					
Email: ekawata@hbws.org		WO #:																					
Project Name: PFAS COMPLIANCE/HEWS Sites Event Desc: Quarterly - Field S		Project #: 38008739																					
Site: Hawaii		SSOW#:																					
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (Inorganic, Organic, Dioxin/Furan, ST+Trace, Arsenic)		Field Filled Sample (Yes or No)		Perform Hg/MSD (Yes or No)		637.1 DW_PREC - 637.1 Full List		PFAS_HazIndex - Local Method		633 - All Analytes		Total Number of Containers		Special Instructions/Note:	
Halawa Wells Pump 1		23-May-2025		1023		G		Drinking Water						3		X		3					
Aiea Wells Pump 2		23-May-2025		1041		G		Drinking Water						3		X		3					
FB: Halawa Wells Pump 1		23-May-2025		1023										1		X		1					
FB: Aiea Wells Pump 2		23-May-2025		1041										1		X		1					

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-152545-2

SDG Number: Halawa Wells P1, Aiea Wells P2

Login Number: 152545

List Number: 1

Creator: Segura, Ryan

List Source: Eurofins Eaton Analytical 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).	True	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Eurofins Eaton Analytical Pomona