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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: Moanalua Wells, Halawa Wells, Aiea Gulch Wells P1/P2, Aiea Wells Pumps 1&2
RUSH Weekly Red Hill

JOB NUMBER

380-182615-1

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: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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: 380-182615-1

Job ID: 380-182615-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-182615-1

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 11/13/2025 9:30 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 1.5°C and 4.1°C.

PFAS

EPA 537.1 and EPA 533 are two distinct methods for the analysis of PFAS in drinking water. The analyses are conducted on differing instrumentation, with calibrations, extraction solvents and sample preservatives being dissimilar among the two methods. Therefore it is probable and not unexpected to see the methods having slight variations in analytical results. (XWB4)

HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065) (380-182615-2)

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: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

Client Sample ID: MOANALUA WELLS (331-223-TP202)
PWSID Number: HI0000331

Lab Sample ID: 380-182615-1

No Detections.

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
(331-206-TP065)
PWSID Number: HI0000331

Lab Sample ID: 380-182615-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	2.7		2.0	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	2.3		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.5		2.0	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	2.0		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.6		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanoic acid (PFHxA)	2.1		2.0	ng/L	1		537.1	Total/NA
Perfluorooctanoic acid (PFOA)	2.0		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.7		2.0	ng/L	1		537.1	Total/NA

Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)
PWSID Number: HI0000331

Lab Sample ID: 380-182615-3

No Detections.

Client Sample ID: AIEA GULCH WELLS PUMP 2
(331-202-TP072)
PWSID Number: HI0000331

Lab Sample ID: 380-182615-4

No Detections.

Client Sample ID: AIEA WELLS PUMPS 1&2 P2 (260)
(331-203-TP400)
PWSID Number: HI0000331

Lab Sample ID: 380-182615-5

No Detections.

Client Sample ID: FB: MOANALUA WELLS (331-223-TP202)
PWSID Number: HI0000331

Lab Sample ID: 380-182615-6

No Detections.

Client Sample ID: FB: HALAWA WELLS UNITS 1 & 2
(331-206-TP065)
PWSID Number: HI0000331

Lab Sample ID: 380-182615-7

No Detections.

Client Sample ID: FB: AIEA GULCH WELLS PUMP 1
(331-201-TP071)
PWSID Number: HI0000331

Lab Sample ID: 380-182615-8

No Detections.

This Detection Summary does not include radiochemical test results.

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Detection Summary

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

Client Sample ID: FB: AIEA GULCH WELLS PUMP 2
(331-202-TP072)
PWSID Number: HI0000331

Lab Sample ID: 380-182615-9

No Detections

Client Sample ID: FB: AIEA WELLS PUMPS 1&2 (260)
(331-203-TP400)
PWSID Number: HI0000331

Lab Sample ID: 380-182615-10

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-182615-1

Date Collected: 11/10/25 10:32

Matrix: Drinking Water

Date Received: 11/13/25 09:30

PWSID Number: HI0000331

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		11/14/25 17:48	11/15/25 17:56	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 17:56	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 17:56	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 17:56	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 17:56	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 17:56	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 17:56	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 17:56	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 17:56	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 17:56	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 17:56	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 17:56	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 17:56	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 17:56	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 17:56	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 17:56	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 17:56	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 17:56	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 17:56	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 17:56	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 17:56	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 17:56	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 17:56	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 17:56	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 17:56	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	106		50 - 200	11/14/25 17:48	11/15/25 17:56	1
13C6 PFDA	109		50 - 200	11/14/25 17:48	11/15/25 17:56	1
13C5 PFHxA	105		50 - 200	11/14/25 17:48	11/15/25 17:56	1
13C4 PFHpA	107		50 - 200	11/14/25 17:48	11/15/25 17:56	1
13C8 PFOA	101		50 - 200	11/14/25 17:48	11/15/25 17:56	1
13C9 PFNA	100		50 - 200	11/14/25 17:48	11/15/25 17:56	1
13C7 PFUnA	107		50 - 200	11/14/25 17:48	11/15/25 17:56	1
13C2 PFDoA	110		50 - 200	11/14/25 17:48	11/15/25 17:56	1
13C4 PFBA	108		50 - 200	11/14/25 17:48	11/15/25 17:56	1
13C5 PFPeA	107		50 - 200	11/14/25 17:48	11/15/25 17:56	1
13C3 PFBS	111		50 - 200	11/14/25 17:48	11/15/25 17:56	1
13C3 PFHxS	112		50 - 200	11/14/25 17:48	11/15/25 17:56	1

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Client Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-182615-1

Date Collected: 11/10/25 10:32

Matrix: Drinking Water

Date Received: 11/13/25 09:30

PWSID Number: HI0000331

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	104		50 - 200	11/14/25 17:48	11/15/25 17:56	1
13C2-4:2-FTS	123		50 - 200	11/14/25 17:48	11/15/25 17:56	1
13C2-6:2-FTS	124		50 - 200	11/14/25 17:48	11/15/25 17:56	1
13C2-8:2-FTS	121		50 - 200	11/14/25 17:48	11/15/25 17:56	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		11/14/25 09:19	11/16/25 12:38	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 12:38	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 12:38	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 12:38	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 12:38	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 12:38	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 12:38	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 12:38	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 12:38	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 12:38	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 12:38	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 12:38	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 12:38	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 12:38	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 12:38	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 12:38	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 12:38	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 12:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	95		70 - 130	11/14/25 09:19	11/16/25 12:38	1
13C2 PFHxA	107		70 - 130	11/14/25 09:19	11/16/25 12:38	1
13C2 PFDA	107		70 - 130	11/14/25 09:19	11/16/25 12:38	1
13C3-GenX	97		70 - 130	11/14/25 09:19	11/16/25 12:38	1

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)

Lab Sample ID: 380-182615-2

Date Collected: 11/10/25 10:59

Matrix: Drinking Water

Date Received: 11/13/25 09:30

PWSID Number: HI0000331

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		11/14/25 17:48	11/15/25 18:25	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:25	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:25	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

**Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
(331-206-TP065)**

Lab Sample ID: 380-182615-2

Date Collected: 11/10/25 10:59

Matrix: Drinking Water

Date Received: 11/13/25 09:30

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:25	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:25	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:25	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:25	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:25	1
Perfluorohexanesulfonic acid (PFHxS)	2.7		2.0	ng/L		11/14/25 17:48	11/15/25 18:25	1
Perfluorohexanoic acid (PFHxA)	2.3		2.0	ng/L		11/14/25 17:48	11/15/25 18:25	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:25	1
Perfluorooctanesulfonic acid (PFOS)	2.5		2.0	ng/L		11/14/25 17:48	11/15/25 18:25	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:25	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:25	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:25	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:25	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:25	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:25	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:25	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:25	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:25	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:25	1
Perfluoropentanoic acid (PFPeA)	2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:25	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:25	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:25	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	78		50 - 200	11/14/25 17:48	11/15/25 18:25	1
13C6 PFDA	89		50 - 200	11/14/25 17:48	11/15/25 18:25	1
13C5 PFHxA	79		50 - 200	11/14/25 17:48	11/15/25 18:25	1
13C4 PFHpA	85		50 - 200	11/14/25 17:48	11/15/25 18:25	1
13C8 PFOA	79		50 - 200	11/14/25 17:48	11/15/25 18:25	1
13C9 PFNA	80		50 - 200	11/14/25 17:48	11/15/25 18:25	1
13C7 PFUnA	87		50 - 200	11/14/25 17:48	11/15/25 18:25	1
13C2 PFDoA	91		50 - 200	11/14/25 17:48	11/15/25 18:25	1
13C4 PFBA	90		50 - 200	11/14/25 17:48	11/15/25 18:25	1
13C5 PFPeA	90		50 - 200	11/14/25 17:48	11/15/25 18:25	1
13C3 PFBS	113		50 - 200	11/14/25 17:48	11/15/25 18:25	1
13C3 PFHxS	112		50 - 200	11/14/25 17:48	11/15/25 18:25	1
13C8 PFOS	105		50 - 200	11/14/25 17:48	11/15/25 18:25	1
13C2-4:2-FTS	126		50 - 200	11/14/25 17:48	11/15/25 18:25	1
13C2-6:2-FTS	123		50 - 200	11/14/25 17:48	11/15/25 18:25	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

**Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1
(331-206-TP065)**

Lab Sample ID: 380-182615-2

Date Collected: 11/10/25 10:59

Matrix: Drinking Water

Date Received: 11/13/25 09:30

PWSID Number: HI0000331

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2-8:2-FTS	122		50 - 200	11/14/25 17:48	11/15/25 18:25	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		11/14/25 09:19	11/16/25 13:07	1
Perfluorooctanesulfonic acid (PFOS)	2.6		2.0	ng/L		11/14/25 09:19	11/16/25 13:07	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:07	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:07	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:07	1
Perfluorohexanoic acid (PFHxA)	2.1		2.0	ng/L		11/14/25 09:19	11/16/25 13:07	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:07	1
Perfluorooctanoic acid (PFOA)	2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:07	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:07	1
Perfluorohexanesulfonic acid (PFHxS)	2.7		2.0	ng/L		11/14/25 09:19	11/16/25 13:07	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:07	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:07	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:07	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:07	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:07	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:07	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:07	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	108		70 - 130	11/14/25 09:19	11/16/25 13:07	1
13C2 PFHxA	101		70 - 130	11/14/25 09:19	11/16/25 13:07	1
13C2 PFDA	112		70 - 130	11/14/25 09:19	11/16/25 13:07	1
13C3-GenX	106		70 - 130	11/14/25 09:19	11/16/25 13:07	1

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-182615-3

Date Collected: 11/10/25 11:28

Matrix: Drinking Water

Date Received: 11/13/25 09:30

PWSID Number: HI0000331

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		11/14/25 17:48	11/15/25 18:35	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:35	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:35	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-182615-3

Date Collected: 11/10/25 11:28

Matrix: Drinking Water

Date Received: 11/13/25 09:30

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:35	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:35	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:35	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:35	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:35	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:35	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:35	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:35	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:35	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:35	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:35	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:35	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:35	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:35	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:35	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:35	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:35	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:35	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:35	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:35	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:35	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:35	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	108		50 - 200	11/14/25 17:48	11/15/25 18:35	1
13C6 PFDA	114		50 - 200	11/14/25 17:48	11/15/25 18:35	1
13C5 PFHxA	107		50 - 200	11/14/25 17:48	11/15/25 18:35	1
13C4 PFHpA	109		50 - 200	11/14/25 17:48	11/15/25 18:35	1
13C8 PFOA	102		50 - 200	11/14/25 17:48	11/15/25 18:35	1
13C9 PFNA	105		50 - 200	11/14/25 17:48	11/15/25 18:35	1
13C7 PFUnA	110		50 - 200	11/14/25 17:48	11/15/25 18:35	1
13C2 PFDoA	112		50 - 200	11/14/25 17:48	11/15/25 18:35	1
13C4 PFBA	107		50 - 200	11/14/25 17:48	11/15/25 18:35	1
13C5 PFPeA	109		50 - 200	11/14/25 17:48	11/15/25 18:35	1
13C3 PFBS	115		50 - 200	11/14/25 17:48	11/15/25 18:35	1
13C3 PFHxS	114		50 - 200	11/14/25 17:48	11/15/25 18:35	1
13C8 PFOS	105		50 - 200	11/14/25 17:48	11/15/25 18:35	1
13C2-4:2-FTS	127		50 - 200	11/14/25 17:48	11/15/25 18:35	1
13C2-6:2-FTS	129		50 - 200	11/14/25 17:48	11/15/25 18:35	1
13C2-8:2-FTS	123		50 - 200	11/14/25 17:48	11/15/25 18:35	1

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Client Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)

Lab Sample ID: 380-182615-3

Date Collected: 11/10/25 11:28

Matrix: Drinking Water

Date Received: 11/13/25 09:30

PWSID Number: HI0000331

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		11/14/25 09:19	11/16/25 13:16	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:16	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:16	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:16	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:16	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:16	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:16	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:16	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:16	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:16	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:16	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:16	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:16	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:16	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:16	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:16	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:16	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	106		70 - 130			11/14/25 09:19	11/16/25 13:16	1
13C2 PFHxA	93		70 - 130			11/14/25 09:19	11/16/25 13:16	1
13C2 PFDA	106		70 - 130			11/14/25 09:19	11/16/25 13:16	1
13C3-GenX	87		70 - 130			11/14/25 09:19	11/16/25 13:16	1

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

Lab Sample ID: 380-182615-4

Date Collected: 11/10/25 11:47

Matrix: Drinking Water

Date Received: 11/13/25 09:30

PWSID Number: HI0000331

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		11/14/25 17:48	11/15/25 18:45	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:45	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:45	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:45	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:45	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:45	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:45	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:45	1

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Client Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-182615-4

Date Collected: 11/10/25 11:47

Matrix: Drinking Water

Date Received: 11/13/25 09:30

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:45	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:45	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:45	1
Perfluorooctanesulfonic acid (PFOS)	2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:45	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:45	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:45	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:45	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:45	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:45	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:45	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:45	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:45	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:45	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:45	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:45	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:45	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:45	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	107		50 - 200			11/14/25 17:48	11/15/25 18:45	1
13C6 PFDA	115		50 - 200			11/14/25 17:48	11/15/25 18:45	1
13C5 PFHxA	102		50 - 200			11/14/25 17:48	11/15/25 18:45	1
13C4 PFHpA	108		50 - 200			11/14/25 17:48	11/15/25 18:45	1
13C8 PFOA	102		50 - 200			11/14/25 17:48	11/15/25 18:45	1
13C9 PFNA	106		50 - 200			11/14/25 17:48	11/15/25 18:45	1
13C7 PFUnA	111		50 - 200			11/14/25 17:48	11/15/25 18:45	1
13C2 PFDoA	111		50 - 200			11/14/25 17:48	11/15/25 18:45	1
13C4 PFBA	111		50 - 200			11/14/25 17:48	11/15/25 18:45	1
13C5 PFPeA	112		50 - 200			11/14/25 17:48	11/15/25 18:45	1
13C3 PFBS	113		50 - 200			11/14/25 17:48	11/15/25 18:45	1
13C3 PFHxS	114		50 - 200			11/14/25 17:48	11/15/25 18:45	1
13C8 PFOS	107		50 - 200			11/14/25 17:48	11/15/25 18:45	1
13C2-4:2-FTS	128		50 - 200			11/14/25 17:48	11/15/25 18:45	1
13C2-6:2-FTS	132		50 - 200			11/14/25 17:48	11/15/25 18:45	1
13C2-8:2-FTS	124		50 - 200			11/14/25 17:48	11/15/25 18:45	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		11/14/25 09:19	11/16/25 13:26	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:26	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:26	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-182615-4

**Date Collected: 11/10/25 11:47
Date Received: 11/13/25 09:30**

**Matrix: Drinking Water
PWSID Number: HI0000331**

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:26	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:26	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:26	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:26	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:26	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:26	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:26	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:26	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:26	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:26	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:26	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:26	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:26	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:26	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	108		70 - 130			11/14/25 09:19	11/16/25 13:26	1
13C2 PFHxA	95		70 - 130			11/14/25 09:19	11/16/25 13:26	1
13C2 PFDA	105		70 - 130			11/14/25 09:19	11/16/25 13:26	1
13C3-GenX	89		70 - 130			11/14/25 09:19	11/16/25 13:26	1

**Client Sample ID: AIEA WELLS PUMPS 1&2 P2 (260)
(331-203-TP400)**

Lab Sample ID: 380-182615-5

**Date Collected: 11/10/25 12:07
Date Received: 11/13/25 09:30**

**Matrix: Drinking Water
PWSID Number: HI0000331**

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		11/14/25 17:48	11/15/25 18:54	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:54	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:54	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:54	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:54	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:54	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:54	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:54	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:54	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:54	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:54	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:54	1

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Client Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

Client Sample ID: AIEA WELLS PUMPS 1&2 P2 (260)
(331-203-TP400)

Lab Sample ID: 380-182615-5

Date Collected: 11/10/25 12:07
Date Received: 11/13/25 09:30

Matrix: Drinking Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:54	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:54	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:54	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:54	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:54	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:54	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:54	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:54	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:54	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:54	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:54	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:54	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 18:54	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	105		50 - 200			11/14/25 17:48	11/15/25 18:54	1
13C6 PFDA	110		50 - 200			11/14/25 17:48	11/15/25 18:54	1
13C5 PFHxA	103		50 - 200			11/14/25 17:48	11/15/25 18:54	1
13C4 PFHpA	105		50 - 200			11/14/25 17:48	11/15/25 18:54	1
13C8 PFOA	101		50 - 200			11/14/25 17:48	11/15/25 18:54	1
13C9 PFNA	105		50 - 200			11/14/25 17:48	11/15/25 18:54	1
13C7 PFUnA	109		50 - 200			11/14/25 17:48	11/15/25 18:54	1
13C2 PFDoA	112		50 - 200			11/14/25 17:48	11/15/25 18:54	1
13C4 PFBA	106		50 - 200			11/14/25 17:48	11/15/25 18:54	1
13C5 PFPeA	108		50 - 200			11/14/25 17:48	11/15/25 18:54	1
13C3 PFBS	109		50 - 200			11/14/25 17:48	11/15/25 18:54	1
13C3 PFHxS	108		50 - 200			11/14/25 17:48	11/15/25 18:54	1
13C8 PFOS	100		50 - 200			11/14/25 17:48	11/15/25 18:54	1
13C2-4:2-FTS	117		50 - 200			11/14/25 17:48	11/15/25 18:54	1
13C2-6:2-FTS	125		50 - 200			11/14/25 17:48	11/15/25 18:54	1
13C2-8:2-FTS	115		50 - 200			11/14/25 17:48	11/15/25 18:54	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		11/14/25 09:19	11/16/25 13:35	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:35	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:35	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:35	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:35	1

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Client Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

Client Sample ID: AIEA WELLS PUMPS 1&2 P2 (260)
(331-203-TP400)

Lab Sample ID: 380-182615-5

Date Collected: 11/10/25 12:07
Date Received: 11/13/25 09:30

Matrix: Drinking Water
PWSID Number: HI0000331

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		11/14/25 09:19	11/16/25 13:35	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:35	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:35	1
Perfluorodecanoic acid (PFDA)	2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:35	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:35	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:35	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:35	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:35	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:35	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:35	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:35	1
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:35	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	105		70 - 130			11/14/25 09:19	11/16/25 13:35	1
13C2 PFHxA	95		70 - 130			11/14/25 09:19	11/16/25 13:35	1
13C2 PFDA	102		70 - 130			11/14/25 09:19	11/16/25 13:35	1
13C3-GenX	104		70 - 130			11/14/25 09:19	11/16/25 13:35	1

Client Sample ID: FB: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-182615-6

Date Collected: 11/10/25 10:32
Date Received: 11/13/25 09:30

Matrix: Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:04	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:04	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:04	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:04	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:04	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:04	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:04	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:04	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:04	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:04	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:04	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:04	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:04	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:04	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:04	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:04	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

Client Sample ID: FB: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-182615-6

Date Collected: 11/10/25 10:32

Matrix: Water

Date Received: 11/13/25 09:30

PWSID Number: HI0000331

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		11/14/25 17:48	11/15/25 19:04	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:04	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:04	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:04	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:04	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:04	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:04	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:04	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:04	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	102		50 - 200			11/14/25 17:48	11/15/25 19:04	1
13C6 PFDA	111		50 - 200			11/14/25 17:48	11/15/25 19:04	1
13C5 PFHxA	105		50 - 200			11/14/25 17:48	11/15/25 19:04	1
13C4 PFHpA	105		50 - 200			11/14/25 17:48	11/15/25 19:04	1
13C8 PFOA	100		50 - 200			11/14/25 17:48	11/15/25 19:04	1
13C9 PFNA	101		50 - 200			11/14/25 17:48	11/15/25 19:04	1
13C7 PFUnA	108		50 - 200			11/14/25 17:48	11/15/25 19:04	1
13C2 PFDoA	111		50 - 200			11/14/25 17:48	11/15/25 19:04	1
13C4 PFBA	103		50 - 200			11/14/25 17:48	11/15/25 19:04	1
13C5 PFPeA	106		50 - 200			11/14/25 17:48	11/15/25 19:04	1
13C3 PFBS	111		50 - 200			11/14/25 17:48	11/15/25 19:04	1
13C3 PFHxS	111		50 - 200			11/14/25 17:48	11/15/25 19:04	1
13C8 PFOS	104		50 - 200			11/14/25 17:48	11/15/25 19:04	1
13C2-4:2-FTS	123		50 - 200			11/14/25 17:48	11/15/25 19:04	1
13C2-6:2-FTS	124		50 - 200			11/14/25 17:48	11/15/25 19:04	1
13C2-8:2-FTS	120		50 - 200			11/14/25 17:48	11/15/25 19:04	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		11/14/25 09:19	11/16/25 13:45	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:45	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:45	1
N-methylperfluorooctanesulfonamide acetic acid (NMeFOSAA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:45	1
N-ethylperfluorooctanesulfonamide acetic acid (NEtFOSAA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:45	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:45	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:45	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:45	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:45	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:45	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:45	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

Client Sample ID: FB: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-182615-6

Date Collected: 11/10/25 10:32

Matrix: Water

Date Received: 11/13/25 09:30

PWSID Number: HI0000331

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		11/14/25 09:19	11/16/25 13:45	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:45	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:45	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:45	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:45	1
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:45	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	108		70 - 130			11/14/25 09:19	11/16/25 13:45	1
13C2 PFHxA	102		70 - 130			11/14/25 09:19	11/16/25 13:45	1
13C2 PFDA	112		70 - 130			11/14/25 09:19	11/16/25 13:45	1
13C3-GenX	101		70 - 130			11/14/25 09:19	11/16/25 13:45	1

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

Lab Sample ID: 380-182615-7

Date Collected: 11/10/25 10:59

Matrix: Water

Date Received: 11/13/25 09:30

PWSID Number: HI0000331

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		11/14/25 17:48	11/15/25 19:14	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:14	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:14	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:14	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:14	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:14	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:14	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:14	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:14	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:14	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:14	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:14	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:14	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:14	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:14	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:14	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:14	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:14	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:14	1

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Client Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-182615-7

Date Collected: 11/10/25 10:59

Matrix: Water

Date Received: 11/13/25 09:30

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:14	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:14	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:14	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:14	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:14	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:14	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	103		50 - 200	11/14/25 17:48	11/15/25 19:14	1
13C6 PFDA	117		50 - 200	11/14/25 17:48	11/15/25 19:14	1
13C5 PFHxA	104		50 - 200	11/14/25 17:48	11/15/25 19:14	1
13C4 PFHpA	107		50 - 200	11/14/25 17:48	11/15/25 19:14	1
13C8 PFOA	104		50 - 200	11/14/25 17:48	11/15/25 19:14	1
13C9 PFNA	105		50 - 200	11/14/25 17:48	11/15/25 19:14	1
13C7 PFUnA	110		50 - 200	11/14/25 17:48	11/15/25 19:14	1
13C2 PFDoA	115		50 - 200	11/14/25 17:48	11/15/25 19:14	1
13C4 PFBA	110		50 - 200	11/14/25 17:48	11/15/25 19:14	1
13C5 PFPeA	114		50 - 200	11/14/25 17:48	11/15/25 19:14	1
13C3 PFBS	115		50 - 200	11/14/25 17:48	11/15/25 19:14	1
13C3 PFHxS	116		50 - 200	11/14/25 17:48	11/15/25 19:14	1
13C8 PFOS	107		50 - 200	11/14/25 17:48	11/15/25 19:14	1
13C2-4:2-FTS	124		50 - 200	11/14/25 17:48	11/15/25 19:14	1
13C2-6:2-FTS	126		50 - 200	11/14/25 17:48	11/15/25 19:14	1
13C2-8:2-FTS	123		50 - 200	11/14/25 17:48	11/15/25 19:14	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		11/14/25 09:19	11/16/25 13:55	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:55	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:55	1
N-methylperfluorooctanesulfonamide acetic acid (NMeFOSAA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:55	1
N-ethylperfluorooctanesulfonamide acetic acid (NEtFOSAA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:55	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:55	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:55	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:55	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:55	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:55	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:55	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:55	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:55	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:55	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:55	1

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Client Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-182615-7

Date Collected: 11/10/25 10:59

Matrix: Water

Date Received: 11/13/25 09:30

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:55	1
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:55	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 13:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	104		70 - 130			11/14/25 09:19	11/16/25 13:55	1
13C2 PFHxA	95		70 - 130			11/14/25 09:19	11/16/25 13:55	1
13C2 PFDA	105		70 - 130			11/14/25 09:19	11/16/25 13:55	1
13C3-GenX	89		70 - 130			11/14/25 09:19	11/16/25 13:55	1

**Client Sample ID: FB: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-182615-8

Date Collected: 11/10/25 11:28

Matrix: Water

Date Received: 11/13/25 09:30

PWSID Number: HI0000331

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		11/14/25 17:48	11/15/25 19:23	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:23	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:23	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:23	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:23	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:23	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:23	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:23	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:23	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:23	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:23	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:23	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:23	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:23	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:23	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:23	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:23	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:23	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:23	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:23	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:23	1

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Client Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

**Client Sample ID: FB: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-182615-8

Date Collected: 11/10/25 11:28

Matrix: Water

Date Received: 11/13/25 09:30

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:23	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:23	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:23	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:23	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	105		50 - 200			11/14/25 17:48	11/15/25 19:23	1
13C6 PFDA	116		50 - 200			11/14/25 17:48	11/15/25 19:23	1
13C5 PFHxA	105		50 - 200			11/14/25 17:48	11/15/25 19:23	1
13C4 PFHpA	111		50 - 200			11/14/25 17:48	11/15/25 19:23	1
13C8 PFOA	103		50 - 200			11/14/25 17:48	11/15/25 19:23	1
13C9 PFNA	108		50 - 200			11/14/25 17:48	11/15/25 19:23	1
13C7 PFUnA	115		50 - 200			11/14/25 17:48	11/15/25 19:23	1
13C2 PFDoA	117		50 - 200			11/14/25 17:48	11/15/25 19:23	1
13C4 PFBA	111		50 - 200			11/14/25 17:48	11/15/25 19:23	1
13C5 PFPeA	116		50 - 200			11/14/25 17:48	11/15/25 19:23	1
13C3 PFBS	119		50 - 200			11/14/25 17:48	11/15/25 19:23	1
13C3 PFHxS	114		50 - 200			11/14/25 17:48	11/15/25 19:23	1
13C8 PFOS	110		50 - 200			11/14/25 17:48	11/15/25 19:23	1
13C2-4:2-FTS	128		50 - 200			11/14/25 17:48	11/15/25 19:23	1
13C2-6:2-FTS	128		50 - 200			11/14/25 17:48	11/15/25 19:23	1
13C2-8:2-FTS	120		50 - 200			11/14/25 17:48	11/15/25 19:23	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		11/14/25 09:19	11/16/25 14:04	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:04	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:04	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:04	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:04	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:04	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:04	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:04	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:04	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:04	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:04	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:04	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:04	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:04	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:04	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:04	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:04	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

**Client Sample ID: FB: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-182615-8

Date Collected: 11/10/25 11:28

Matrix: Water

Date Received: 11/13/25 09:30

PWSID Number: HI0000331

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		11/14/25 09:19	11/16/25 14:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	94		70 - 130			11/14/25 09:19	11/16/25 14:04	1
13C2 PFHxA	92		70 - 130			11/14/25 09:19	11/16/25 14:04	1
13C2 PFDA	100		70 - 130			11/14/25 09:19	11/16/25 14:04	1
13C3-GenX	71		70 - 130			11/14/25 09:19	11/16/25 14:04	1

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

Lab Sample ID: 380-182615-9

Date Collected: 11/10/25 11:47

Matrix: Water

Date Received: 11/13/25 09:30

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosfluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:33	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:33	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:33	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:33	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:33	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:33	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:33	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:33	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:33	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:33	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:33	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:33	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:33	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:33	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:33	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:33	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:33	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:33	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:33	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:33	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:33	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:33	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:33	1

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Client Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-182615-9

Date Collected: 11/10/25 11:47

Matrix: Water

Date Received: 11/13/25 09:30

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:33	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:33	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	104		50 - 200			11/14/25 17:48	11/15/25 19:33	1
13C6 PFDA	115		50 - 200			11/14/25 17:48	11/15/25 19:33	1
13C5 PFHxA	106		50 - 200			11/14/25 17:48	11/15/25 19:33	1
13C4 PFHpA	106		50 - 200			11/14/25 17:48	11/15/25 19:33	1
13C8 PFOA	100		50 - 200			11/14/25 17:48	11/15/25 19:33	1
13C9 PFNA	105		50 - 200			11/14/25 17:48	11/15/25 19:33	1
13C7 PFUnA	107		50 - 200			11/14/25 17:48	11/15/25 19:33	1
13C2 PFDoA	113		50 - 200			11/14/25 17:48	11/15/25 19:33	1
13C4 PFBA	108		50 - 200			11/14/25 17:48	11/15/25 19:33	1
13C5 PFPeA	109		50 - 200			11/14/25 17:48	11/15/25 19:33	1
13C3 PFBS	111		50 - 200			11/14/25 17:48	11/15/25 19:33	1
13C3 PFHxS	110		50 - 200			11/14/25 17:48	11/15/25 19:33	1
13C8 PFOS	104		50 - 200			11/14/25 17:48	11/15/25 19:33	1
13C2-4:2-FTS	125		50 - 200			11/14/25 17:48	11/15/25 19:33	1
13C2-6:2-FTS	125		50 - 200			11/14/25 17:48	11/15/25 19:33	1
13C2-8:2-FTS	117		50 - 200			11/14/25 17:48	11/15/25 19:33	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		11/14/25 09:19	11/16/25 14:14	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:14	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:14	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:14	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:14	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:14	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:14	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:14	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:14	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:14	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:14	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:14	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:14	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:14	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:14	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:14	1
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:14	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:14	1

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Client Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-182615-9

Date Collected: 11/10/25 11:47
Date Received: 11/13/25 09:30

Matrix: Water
PWSID Number: HI0000331

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	91		70 - 130	11/14/25 09:19	11/16/25 14:14	1
13C2 PFHxA	85		70 - 130	11/14/25 09:19	11/16/25 14:14	1
13C2 PFDA	104		70 - 130	11/14/25 09:19	11/16/25 14:14	1
13C3-GenX	85		70 - 130	11/14/25 09:19	11/16/25 14:14	1

Client Sample ID: FB: AIEA WELLS PUMPS 1&2 (260)
(331-203-TP400)

Lab Sample ID: 380-182615-10

Date Collected: 11/10/25 12:07
Date Received: 11/13/25 09:30

Matrix: Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosfluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:43	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:43	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:43	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:43	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:43	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:43	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:43	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:43	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:43	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:43	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:43	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:43	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:43	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:43	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:43	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:43	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:43	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:43	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:43	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:43	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:43	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:43	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:43	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:43	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		11/14/25 17:48	11/15/25 19:43	1

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Client Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

Client Sample ID: FB: AIEA WELLS PUMPS 1&2 (260)
(331-203-TP400)

Lab Sample ID: 380-182615-10

Date Collected: 11/10/25 12:07
Date Received: 11/13/25 09:30

Matrix: Water
PWSID Number: HI0000331

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	107		50 - 200	11/14/25 17:48	11/15/25 19:43	1
13C6 PFDA	116		50 - 200	11/14/25 17:48	11/15/25 19:43	1
13C5 PFHxA	105		50 - 200	11/14/25 17:48	11/15/25 19:43	1
13C4 PFHpA	110		50 - 200	11/14/25 17:48	11/15/25 19:43	1
13C8 PFOA	101		50 - 200	11/14/25 17:48	11/15/25 19:43	1
13C9 PFNA	107		50 - 200	11/14/25 17:48	11/15/25 19:43	1
13C7 PFUnA	112		50 - 200	11/14/25 17:48	11/15/25 19:43	1
13C2 PFDoA	114		50 - 200	11/14/25 17:48	11/15/25 19:43	1
13C4 PFBA	110		50 - 200	11/14/25 17:48	11/15/25 19:43	1
13C5 PFPeA	112		50 - 200	11/14/25 17:48	11/15/25 19:43	1
13C3 PFBS	120		50 - 200	11/14/25 17:48	11/15/25 19:43	1
13C3 PFHxS	120		50 - 200	11/14/25 17:48	11/15/25 19:43	1
13C8 PFOS	112		50 - 200	11/14/25 17:48	11/15/25 19:43	1
13C2-4:2-FTS	132		50 - 200	11/14/25 17:48	11/15/25 19:43	1
13C2-6:2-FTS	129		50 - 200	11/14/25 17:48	11/15/25 19:43	1
13C2-8:2-FTS	125		50 - 200	11/14/25 17:48	11/15/25 19:43	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		11/14/25 09:19	11/16/25 14:23	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:23	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:23	1
N-methylperfluorooctanesulfonamide acetic acid (NMeFOSAA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:23	1
N-ethylperfluorooctanesulfonamide acetic acid (NEtFOSAA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:23	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:23	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:23	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:23	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:23	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:23	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:23	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:23	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:23	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:23	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:23	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:23	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:23	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/14/25 09:19	11/16/25 14:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	100		70 - 130	11/14/25 09:19	11/16/25 14:23	1
13C2 PFHxA	99		70 - 130	11/14/25 09:19	11/16/25 14:23	1
13C2 PFDA	107		70 - 130	11/14/25 09:19	11/16/25 14:23	1
13C3-GenX	92		70 - 130	11/14/25 09:19	11/16/25 14:23	1

Action Limit Summary

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-182615-1

PWSID Number: HI0000331

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: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-182615-2

(331-206-TP065)

PWSID Number: HI0000331

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)	2.7		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.5		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)	2.6		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)	2.7		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 1

Lab Sample ID: 380-182615-3

(331-201-TP071)

PWSID Number: HI0000331

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

Eurofins Eaton Analytical Pomona

Action Limit Summary

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071) (Continued)
PWSID Number: HI0000331

Lab Sample ID: 380-182615-3

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			
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
(331-202-TP072)
PWSID Number: HI0000331

Lab Sample ID: 380-182615-4

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: AIEA WELLS PUMPS 1&2 P2 (260)
(331-203-TP400)
PWSID Number: HI0000331

Lab Sample ID: 380-182615-5

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

Eurofins Eaton Analytical Pomona

Action Limit Summary

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

Client Sample ID: AIEA WELLS PUMPS 1&2 P2 (260)
(331-203-TP400) (Continued)
PWSID Number: HI0000331

Lab Sample ID: 380-182615-5

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			
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: MOANALUA WELLS (331-223-TP202)
PWSID Number: HI0000331

Lab Sample ID: 380-182615-6

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

Client Sample ID: FB: HALAWA WELLS UNITS 1 & 2
(331-206-TP065)
PWSID Number: HI0000331

Lab Sample ID: 380-182615-7

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

Eurofins Eaton Analytical Pomona

Action Limit Summary

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

Client Sample ID: FB: HALAWA WELLS UNITS 1 & 2
(331-206-TP065) (Continued)
PWSID Number: HI0000331

Lab Sample ID: 380-182615-7

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			
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 1
(331-201-TP071)
PWSID Number: HI0000331

Lab Sample ID: 380-182615-8

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
(331-202-TP072)
PWSID Number: HI0000331

Lab Sample ID: 380-182615-9

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

Eurofins Eaton Analytical Pomona

Action Limit Summary

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

Job ID: 380-182615-1
 SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
 P1/P2, Aiea Wells Pumps 1&2

Client Sample ID: FB: AIEA GULCH WELLS PUMP 2
(331-202-TP072) (Continued)
PWSID Number: HI0000331

Lab Sample ID: 380-182615-9

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			
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 WELLS PUMPS 1&2 (260)
(331-203-TP400)
PWSID Number: HI0000331

Lab Sample ID: 380-182615-10

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: 380-182615-1
 SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
 P1/P2, Aiea Wells Pumps 1&2

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

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)
380-182615-1	MOANALUA WELLS (331-223-T	95	107	107	97
380-182615-1 MS	MOANALUA WELLS (331-223-TP202)	107	99	104	94
380-182615-1 MSD	MOANALUA WELLS (331-223-TP202)	104	103	111	103
380-182615-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	108	101	112	106
380-182615-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	106	93	106	87
380-182615-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	108	95	105	89
380-182615-5	AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP400)	105	95	102	104

Surrogate Legend

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

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)
380-182615-6	FB: MOANALUA WELLS (331-2	108	102	112	101
380-182615-7	FB: HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	104	95	105	89
380-182615-8	FB: AIEA GULCH WELLS PUM 1 (331 201 TP071)	94	92	100	71
380-182615-9	FB: AIEA GULCH WELLS PUMf 2 (331-202-TP072)	91	85	104	85
380-182615-10	FB: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	100	99	107	92
LCS 380-186508/22-A	Lab Control Sample	105	99	95	93
MBL 380-186508/20-A	Method Blank	85	82	106	73
MRL 380-186508/21-A	Lab Control Sample	95	95	102	76

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: 380-182615-1
 SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
 P1/P2, Aiea Wells Pumps 1&2

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)	PFDoA (50-200)
380-182615-1	MOANALUA WELLS (331-223-T	106	109	105	107	101	100	107	110
380-182615-1 MS	MOANALUA WELLS (331-223-TP202)	110	116	106	112	105	107	115	117
380-182615-1 MSD	MOANALUA WELLS (331-223-TP202)	109	116	105	110	103	107	113	117
380-182615-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	78	89	79	85	79	80	87	91
380-182615-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	108	114	107	109	102	105	110	112
380-182615-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	107	115	102	108	102	106	111	111
380-182615-5	AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP400)	105	110	103	105	101	105	109	112

		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)
380-182615-1	MOANALUA WELLS (331-223-T	108	107	111	112	104	123	124	121
380-182615-1 MS	MOANALUA WELLS (331-223-TP202)	111	111	112	113	109	125	127	122
380-182615-1 MSD	MOANALUA WELLS (331-223-TP202)	110	112	118	115	108	129	129	130
380-182615-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	90	90	113	112	105	126	123	122
380-182615-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	107	109	115	114	105	127	129	123
380-182615-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	111	112	113	114	107	128	132	124
380-182615-5	AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP400)	106	108	109	108	100	117	125	115

Surrogate Legend

- HFPODA = 13C3 HFPO-DA
- C6PFDA = 13C6 PFDA
- 13C5PHA = 13C5 PFHxA
- C4PFHA = 13C4 PFHpA
- C8PFOA = 13C8 PFOA
- C9PFNA = 13C9 PFNA
- 13C7PUA = 13C7 PFUnA
- PFDoA = 13C2 PFDoA
- 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

Isotope Dilution Summary

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

Job ID: 380-182615-1
 SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
 P1/P2, Aiea Wells Pumps 1&2

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

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	HFPODA (50-200)	C6PFDA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	13C7PUA (50-200)	PFDaA (50-200)
380-182615-6	FB: MOANALUA WELLS (331-2	102	111	105	105	100	101	108	111
380-182615-7	FB: HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	103	117	104	107	104	105	110	115
380-182615-8	FB: AIEA GULCH WELLS PUM 1 (331-201-TP071)	105	116	105	111	103	108	115	117
380-182615-9	FB: AIEA GULCH WELLS PUM 2 (331-202-TP072)	104	115	106	106	100	105	107	113
380-182615-10	FB: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	107	116	105	110	101	107	112	114
LCS 380-186651/22-A	Lab Control Sample	101	112	100	106	100	103	112	115
MBL 380-186651/20-A	Method Blank	109	119	110	114	106	108	113	118
MRL 380-186651/21-A	Lab Control Sample	103	111	104	106	100	102	110	110

		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)
380-182615-6	FB: MOANALUA WELLS (331-2	103	106	111	111	104	123	124	120
380-182615-7	FB: HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	110	114	115	116	107	124	126	123
380-182615-8	FB: AIEA GULCH WELLS PUM 1 (331-201-TP071)	111	116	119	114	110	128	128	120
380-182615-9	FB: AIEA GULCH WELLS PUM 2 (331-202-TP072)	108	109	111	110	104	125	125	117
380-182615-10	FB: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	110	112	120	120	112	132	129	125
LCS 380-186651/22-A	Lab Control Sample	108	113	111	111	105	132	128	123
MBL 380-186651/20-A	Method Blank	115	119	121	118	111	141	138	129
MRL 380-186651/21-A	Lab Control Sample	107	112	111	114	104	132	129	121

Surrogate Legend

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

QC Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: MBL 380-186651/20-A
Matrix: Water
Analysis Batch: 186700

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 186651

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		11/14/25 17:48	11/15/25 17:26	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		11/14/25 17:48	11/15/25 17:26	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		11/14/25 17:48	11/15/25 17:26	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		11/14/25 17:48	11/15/25 17:26	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		11/14/25 17:48	11/15/25 17:26	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		11/14/25 17:48	11/15/25 17:26	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		11/14/25 17:48	11/15/25 17:26	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		11/14/25 17:48	11/15/25 17:26	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		11/14/25 17:48	11/15/25 17:26	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		11/14/25 17:48	11/15/25 17:26	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		11/14/25 17:48	11/15/25 17:26	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		11/14/25 17:48	11/15/25 17:26	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		11/14/25 17:48	11/15/25 17:26	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		11/14/25 17:48	11/15/25 17:26	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		11/14/25 17:48	11/15/25 17:26	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		11/14/25 17:48	11/15/25 17:26	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		11/14/25 17:48	11/15/25 17:26	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		11/14/25 17:48	11/15/25 17:26	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		11/14/25 17:48	11/15/25 17:26	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		11/14/25 17:48	11/15/25 17:26	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		11/14/25 17:48	11/15/25 17:26	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		11/14/25 17:48	11/15/25 17:26	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		11/14/25 17:48	11/15/25 17:26	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		11/14/25 17:48	11/15/25 17:26	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		11/14/25 17:48	11/15/25 17:26	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	109		50 - 200	11/14/25 17:48	11/15/25 17:26	1
13C6 PFDA	119		50 - 200	11/14/25 17:48	11/15/25 17:26	1
13C5 PFHxA	110		50 - 200	11/14/25 17:48	11/15/25 17:26	1
13C4 PFHpA	114		50 - 200	11/14/25 17:48	11/15/25 17:26	1
13C8 PFOA	106		50 - 200	11/14/25 17:48	11/15/25 17:26	1
13C9 PFNA	108		50 - 200	11/14/25 17:48	11/15/25 17:26	1
13C7 PFUnA	113		50 - 200	11/14/25 17:48	11/15/25 17:26	1
13C2 PFDoA	118		50 - 200	11/14/25 17:48	11/15/25 17:26	1
13C4 PFBA	115		50 - 200	11/14/25 17:48	11/15/25 17:26	1
13C5 PFPeA	119		50 - 200	11/14/25 17:48	11/15/25 17:26	1
13C3 PFBS	121		50 - 200	11/14/25 17:48	11/15/25 17:26	1

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QC Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: MBL 380-186651/20-A
Matrix: Water
Analysis Batch: 186700

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 186651

<i>Isotope Dilution</i>	<i>MBL %Recovery</i>	<i>MBL Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3 PFHxS	118		50 - 200	11/14/25 17:48	11/15/25 17:26	1
13C8 PFOS	111		50 - 200	11/14/25 17:48	11/15/25 17:26	1
13C2-4:2-FTS	141		50 - 200	11/14/25 17:48	11/15/25 17:26	1
13C2-6:2-FTS	138		50 - 200	11/14/25 17:48	11/15/25 17:26	1
13C2-8:2-FTS	129		50 - 200	11/14/25 17:48	11/15/25 17:26	1

Lab Sample ID: LCS 380-186651/22-A
Matrix: Water
Analysis Batch: 186700

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 186651

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	120	131		ng/L		109	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	120	120		ng/L		100	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	120	121		ng/L		101	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	120	120		ng/L		100	70 - 130
Perfluorobutanesulfonic acid (PFBS)	120	121		ng/L		100	70 - 130
Perfluorodecanoic acid (PFDA)	120	115		ng/L		96	70 - 130
Perfluorododecanoic acid (PFDoA)	120	120		ng/L		100	70 - 130
Perfluoroheptanoic acid (PFHpA)	120	122		ng/L		101	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	120	123		ng/L		102	70 - 130
Perfluorohexanoic acid (PFHxA)	120	148		ng/L		123	70 - 130
Perfluorononanoic acid (PFNA)	120	122		ng/L		102	70 - 130
Perfluorooctanesulfonic acid (PFOS)	120	125		ng/L		104	70 - 130
Perfluorooctanoic acid (PFOA)	120	121		ng/L		101	70 - 130
Perfluoroundecanoic acid (PFUnA)	120	123		ng/L		102	70 - 130
Perfluorobutanoic acid (PFBA)	120	114		ng/L		95	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	120	128		ng/L		106	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	120	120		ng/L		100	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	120	120		ng/L		100	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	120	124		ng/L		103	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	120	134		ng/L		111	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	120	119		ng/L		99	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	120	107		ng/L		89	70 - 130
Perfluoropentanoic acid (PFPeA)	120	116		ng/L		96	70 - 130

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QC Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: LCS 380-186651/22-A
Matrix: Water
Analysis Batch: 186700

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 186651

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanesulfonic acid (PFHpS)	120	136		ng/L		113	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	120	118		ng/L		98	70 - 130

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C3 HFPO-DA	101		50 - 200
13C6 PFDA	112		50 - 200
13C5 PFHxA	100		50 - 200
13C4 PFHpA	106		50 - 200
13C8 PFOA	100		50 - 200
13C9 PFNA	103		50 - 200
13C7 PFUnA	112		50 - 200
13C2 PFDoA	115		50 - 200
13C4 PFBA	108		50 - 200
13C5 PFPeA	113		50 - 200
13C3 PFBS	111		50 - 200
13C3 PFHxS	111		50 - 200
13C8 PFOS	105		50 - 200
13C2-4:2-FTS	132		50 - 200
13C2-6:2-FTS	128		50 - 200
13C2-8:2-FTS	123		50 - 200

Lab Sample ID: MRL 380-186651/21-A
Matrix: Water
Analysis Batch: 186700

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 186651

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	2.30	J	ng/L		114	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	2.07	J	ng/L		103	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	2.10	J	ng/L		104	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.16	J	ng/L		108	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.06	J	ng/L		103	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	1.94	J	ng/L		96	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.22	J	ng/L		110	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.20	J	ng/L		109	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.17	J	ng/L		108	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.57	J	ng/L		128	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.13	J	ng/L		106	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.15	J	ng/L		107	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.12	J	ng/L		106	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-182615-1
 SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
 P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: MRL 380-186651/21-A
Matrix: Water
Analysis Batch: 186700

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 186651

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	2.01	2.02	J	ng/L		101	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	2.07	J	ng/L		103	50 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	2.36	J	ng/L		117	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	2.24	J	ng/L		112	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	2.34	J	ng/L		116	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	2.10	J	ng/L		105	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.01	2.30	J	ng/L		115	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	2.07	J	ng/L		103	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	1.82	J	ng/L		91	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	2.06	J	ng/L		103	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.01	2.34	J	ng/L		117	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	1.98	J	ng/L		98	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	Limits
13C3 HFPO-DA	103		50 - 200
13C6 PFDA	111		50 - 200
13C5 PFHxA	104		50 - 200
13C4 PFHpA	106		50 - 200
13C8 PFOA	100		50 - 200
13C9 PFNA	102		50 - 200
13C7 PFUnA	110		50 - 200
13C2 PFDoA	110		50 - 200
13C4 PFBA	107		50 - 200
13C5 PFPeA	112		50 - 200
13C3 PFBS	111		50 - 200
13C3 PFHxS	114		50 - 200
13C8 PFOS	104		50 - 200
13C2-4:2-FTS	132		50 - 200
13C2-6:2-FTS	129		50 - 200
13C2-8:2-FTS	121		50 - 200

Lab Sample ID: 380-182615-1 MS
Matrix: Drinking Water
Analysis Batch: 186700

Client Sample ID: MOANALUA WELLS (331-223-TP202)
Prep Type: Total/NA
Prep Batch: 186651

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.2	67.0		ng/L		111	70 - 130

QC Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-182615-1 MS

Matrix: Drinking Water

Analysis Batch: 186700

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Prep Type: Total/NA

Prep Batch: 186651

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.2	59.0		ng/L		98	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.2	60.3		ng/L		100	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.2	62.5		ng/L		104	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.2	63.9		ng/L		105	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.2	57.7		ng/L		96	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.2	62.6		ng/L		104	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.2	59.8		ng/L		98	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.2	63.3		ng/L		103	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		60.2	75.1		ng/L		122	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.2	61.0		ng/L		101	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.2	63.7		ng/L		103	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.2	61.3		ng/L		100	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.2	60.3		ng/L		100	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.2	59.5		ng/L		96	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.2	66.0		ng/L		110	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.2	66.5		ng/L		110	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.2	62.7		ng/L		104	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.2	62.0		ng/L		103	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.2	67.1		ng/L		111	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.2	60.5		ng/L		100	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.2	56.4		ng/L		94	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		60.2	62.0		ng/L		101	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.2	68.8		ng/L		114	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.2	59.7		ng/L		99	70 - 130

Isotope Dilution	MS	MS	Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	110		50 - 200
13C6 PFDA	116		50 - 200
13C5 PFHxA	106		50 - 200
13C4 PFHpA	112		50 - 200
13C8 PFOA	105		50 - 200
13C9 PFNA	107		50 - 200
13C7 PFUnA	115		50 - 200
13C2 PFDoA	117		50 - 200

QC Sample Results

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

Job ID: 380-182615-1
 SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
 P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-182615-1 MS
Matrix: Drinking Water
Analysis Batch: 186700

Client Sample ID: MOANALUA WELLS (331-223-TP202)
Prep Type: Total/NA
Prep Batch: 186651

Isotope Dilution	MS MS		Limits
	%Recovery	Qualifier	
13C4 PFBA	111		50 - 200
13C5 PFPeA	111		50 - 200
13C3 PFBS	112		50 - 200
13C3 PFHxS	113		50 - 200
13C8 PFOS	109		50 - 200
13C2-4:2-FTS	125		50 - 200
13C2-6:2-FTS	127		50 - 200
13C2-8:2-FTS	122		50 - 200

Lab Sample ID: 380-182615-1 MSD
Matrix: Drinking Water
Analysis Batch: 186700

Client Sample ID: MOANALUA WELLS (331-223-TP202)
Prep Type: Total/NA
Prep Batch: 186651

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec		RPD	Limit
				Result	Qualifier				Limits	RPD		
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.2	69.0		ng/L		115	70 - 130	3	30	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.2	61.0		ng/L		101	70 - 130	3	30	
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.2	61.8		ng/L		103	70 - 130	2	30	
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.2	60.8		ng/L		101	70 - 130	3	30	
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.2	62.2		ng/L		102	70 - 130	3	30	
Perfluorodecanoic acid (PFDA)	<2.0		60.2	57.6		ng/L		96	70 - 130	0	30	
Perfluorododecanoic acid (PFDoA)	<2.0		60.2	61.3		ng/L		102	70 - 130	2	30	
Perfluoroheptanoic acid (PFHpA)	<2.0		60.2	60.5		ng/L		99	70 - 130	1	30	
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.2	62.1		ng/L		101	70 - 130	2	30	
Perfluorohexanoic acid (PFHxA)	<2.0		60.2	75.6		ng/L		123	70 - 130	1	30	
Perfluorononanoic acid (PFNA)	<2.0		60.2	59.9		ng/L		99	70 - 130	2	30	
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.2	65.2		ng/L		105	70 - 130	2	30	
Perfluorooctanoic acid (PFOA)	<2.0		60.2	61.5		ng/L		101	70 - 130	0	30	
Perfluoroundecanoic acid (PFUnA)	<2.0		60.2	61.5		ng/L		102	70 - 130	2	30	
Perfluorobutanoic acid (PFBA)	<2.0		60.2	58.9		ng/L		95	70 - 130	1	30	
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.2	63.1		ng/L		105	70 - 130	4	30	
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.2	64.7		ng/L		107	70 - 130	3	30	
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.2	62.9		ng/L		104	70 - 130	0	30	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.2	60.6		ng/L		101	70 - 130	2	30	
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.2	64.7		ng/L		107	70 - 130	4	30	
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.2	59.1		ng/L		98	70 - 130	2	30	

QC Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-182615-1 MSD

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Matrix: Drinking Water

Prep Type: Total/NA

Analysis Batch: 186700

Prep Batch: 186651

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.2	53.8		ng/L		89	70 - 130	5	30
Perfluoropentanoic acid (PFPeA)	<2.0		60.2	60.2		ng/L		98	70 - 130	3	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.2	69.6		ng/L		115	70 - 130	1	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.2	61.2		ng/L		102	70 - 130	2	30
		MSD	MSD								
Isotope Dilution	%Recovery	Qualifier	Limits								
13C3 HFPO-DA	109		50 - 200								
13C6 PFDA	116		50 - 200								
13C5 PFHxA	105		50 - 200								
13C4 PFHpA	110		50 - 200								
13C8 PFOA	103		50 - 200								
13C9 PFNA	107		50 - 200								
13C7 PFUnA	113		50 - 200								
13C2 PFDoA	117		50 - 200								
13C4 PFBA	110		50 - 200								
13C5 PFPeA	112		50 - 200								
13C3 PFBS	118		50 - 200								
13C3 PFHxS	115		50 - 200								
13C8 PFOS	108		50 - 200								
13C2-4:2-FTS	129		50 - 200								
13C2-6:2-FTS	129		50 - 200								
13C2-8:2-FTS	130		50 - 200								

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

Lab Sample ID: MBL 380-186508/20-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 186727

Prep Batch: 186508

Analyte	MBL	MBL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		11/14/25 09:19	11/16/25 12:09	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		11/14/25 09:19	11/16/25 12:09	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		11/14/25 09:19	11/16/25 12:09	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		11/14/25 09:19	11/16/25 12:09	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		11/14/25 09:19	11/16/25 12:09	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		11/14/25 09:19	11/16/25 12:09	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		11/14/25 09:19	11/16/25 12:09	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		11/14/25 09:19	11/16/25 12:09	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		11/14/25 09:19	11/16/25 12:09	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		11/14/25 09:19	11/16/25 12:09	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		11/14/25 09:19	11/16/25 12:09	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		11/14/25 09:19	11/16/25 12:09	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		11/14/25 09:19	11/16/25 12:09	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		11/14/25 09:19	11/16/25 12:09	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: MBL 380-186508/20-A
Matrix: Water
Analysis Batch: 186727

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 186508

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorotridecanoic acid (PFTTrDA)	<0.36		2.0	ng/L		11/14/25 09:19	11/16/25 12:09	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		11/14/25 09:19	11/16/25 12:09	1
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		11/14/25 09:19	11/16/25 12:09	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		11/14/25 09:19	11/16/25 12:09	1
Surrogate	MBL %Recovery	MBL Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	85		70 - 130			11/14/25 09:19	11/16/25 12:09	1
13C2 PFHxA	82		70 - 130			11/14/25 09:19	11/16/25 12:09	1
13C2 PFDA	106		70 - 130			11/14/25 09:19	11/16/25 12:09	1
13C3-GenX	73		70 - 130			11/14/25 09:19	11/16/25 12:09	1

Lab Sample ID: LCS 380-186508/22-A
Matrix: Water
Analysis Batch: 186727

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 186508

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	25.1	23.1		ng/L		92	70 - 130
Perfluorooctanesulfonic acid (PFOS)	25.1	24.5		ng/L		98	70 - 130
Perfluoroundecanoic acid (PFUnA)	25.1	26.2		ng/L		104	70 - 130
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	25.1	26.6		ng/L		106	70 - 130
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	25.1	26.9		ng/L		107	70 - 130
Perfluorohexanoic acid (PFHxA)	25.1	26.5		ng/L		105	70 - 130
Perfluorododecanoic acid (PFDoA)	25.1	26.0		ng/L		104	70 - 130
Perfluorooctanoic acid (PFOA)	25.1	26.0		ng/L		103	70 - 130
Perfluorodecanoic acid (PFDA)	25.1	24.0		ng/L		96	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	25.1	25.7		ng/L		102	70 - 130
Perfluorobutanesulfonic acid (PFBS)	25.1	24.4		ng/L		97	70 - 130
Perfluoroheptanoic acid (PFHpA)	25.1	24.2		ng/L		97	70 - 130
Perfluorononanoic acid (PFNA)	25.1	24.4		ng/L		97	70 - 130
Perfluorotetradecanoic acid (PFTA)	25.1	21.8		ng/L		87	70 - 130
Perfluorotridecanoic acid (PFTTrDA)	25.1	27.0		ng/L		108	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	25.1	26.1		ng/L		104	70 - 130
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	25.1	24.7		ng/L		98	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	25.1	24.6		ng/L		98	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-182615-1
 SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
 P1/P2, Aiea Wells Pumps 1&2

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

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
d5-NEtFOSAA	105		70 - 130
13C2 PFHxA	99		70 - 130
13C2 PFDA	95		70 - 130
13C3-GenX	93		70 - 130

Lab Sample ID: MRL 380-186508/21-A
Matrix: Water
Analysis Batch: 186727

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 186508

Analyte	Spike Added	MRL MRL		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	1.59	J	ng/L		79	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.26	J	ng/L		113	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.34	J	ng/L		116	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.01	1.87	J	ng/L		93	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.01	2.01	J	ng/L		100	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.08	J	ng/L		104	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.41	J	ng/L		120	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.18	J	ng/L		109	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.29	J	ng/L		114	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.22	J	ng/L		111	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.48	J	ng/L		124	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.12	J	ng/L		105	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.21	J	ng/L		110	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.01	2.31	J	ng/L		115	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.01	2.61	J	ng/L		130	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	2.01	1.80	J	ng/L		90	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.95	J	ng/L		97	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	1.84	J	ng/L		92	50 - 150

Surrogate	MRL MRL		Limits
	%Recovery	Qualifier	
d5-NEtFOSAA	95		70 - 130
13C2 PFHxA	95		70 - 130
13C2 PFDA	102		70 - 130
13C3-GenX	76		70 - 130

QC Sample Results

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-182615-1 MS
Matrix: Drinking Water
Analysis Batch: 186727

Client Sample ID: MOANALUA WELLS (331-223-TP202)
Prep Type: Total/NA
Prep Batch: 186508

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		25.2	25.0		ng/L		99	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		25.2	27.3		ng/L		102	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		25.2	26.4		ng/L		105	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.2	24.8		ng/L		99	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		25.2	26.6		ng/L		106	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		25.2	25.7		ng/L		98	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		25.2	26.6		ng/L		106	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		25.2	27.1		ng/L		104	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		25.2	24.9		ng/L		99	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		25.2	27.6		ng/L		104	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		25.2	25.7		ng/L		100	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		25.2	27.0		ng/L		105	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		25.2	27.7		ng/L		110	70 - 130
Perfluorotetradecanoic acid (PFTA)	<2.0		25.2	22.7		ng/L		90	70 - 130
Perfluorotridecanoic acid (PFTrDA)	<2.0		25.2	27.9		ng/L		111	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		25.2	24.0		ng/L		95	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		25.2	24.2		ng/L		96	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		25.2	25.4		ng/L		101	70 - 130

Surrogate	MS %Recovery	MS Qualifier	MS Limits
d5-NEtFOSAA	107		70 - 130
13C2 PFHxA	99		70 - 130
13C2 PFDA	104		70 - 130
13C3-GenX	94		70 - 130

Lab Sample ID: 380-182615-1 MSD
Matrix: Drinking Water
Analysis Batch: 186727

Client Sample ID: MOANALUA WELLS (331-223-TP202)
Prep Type: Total/NA
Prep Batch: 186508

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		25.2	25.1		ng/L		100	70 - 130	0	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		25.2	28.4		ng/L		106	70 - 130	4	30
Perfluoroundecanoic acid (PFUnA)	<2.0		25.2	29.0		ng/L		115	70 - 130	9	30

QC Sample Results

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

Job ID: 380-182615-1
 SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
 P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-182615-1 MSD

Matrix: Drinking Water

Analysis Batch: 186727

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Prep Type: Total/NA

Prep Batch: 186508

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.2	26.6		ng/L		105	70 - 130	7	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		25.2	26.9		ng/L		107	70 - 130	1	30
Perfluorohexanoic acid (PFHxA)	<2.0		25.2	29.1		ng/L		111	70 - 130	12	30
Perfluorododecanoic acid (PFDoA)	<2.0		25.2	29.3		ng/L		116	70 - 130	10	30
Perfluorooctanoic acid (PFOA)	<2.0		25.2	28.4		ng/L		109	70 - 130	5	30
Perfluorodecanoic acid (PFDA)	<2.0		25.2	27.7		ng/L		110	70 - 130	11	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		25.2	28.9		ng/L		109	70 - 130	5	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		25.2	26.4		ng/L		102	70 - 130	3	30
Perfluoroheptanoic acid (PFHpA)	<2.0		25.2	27.9		ng/L		109	70 - 130	3	30
Perfluorononanoic acid (PFNA)	<2.0		25.2	29.0		ng/L		115	70 - 130	5	30
Perfluorotetradecanoic acid (PFTA)	<2.0		25.2	25.4		ng/L		101	70 - 130	11	30
Perfluorotridecanoic acid (PFTrDA)	<2.0		25.2	31.2		ng/L		124	70 - 130	11	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		25.2	24.0		ng/L		95	70 - 130	0	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid(11Cl-PF3OUdS)	<2.0		25.2	25.7		ng/L		102	70 - 130	6	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		25.2	27.0		ng/L		107	70 - 130	6	30
Surrogate		MSD	MSD								
		%Recovery	Qualifier	Limits							
d5-NEtFOSAA		104		70 - 130							
13C2 PFHxA		103		70 - 130							
13C2 PFDA		111		70 - 130							
13C3-GenX		103		70 - 130							

QC Association Summary

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

LCMS

Prep Batch: 186508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-182615-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	537.1 DW	
380-182615-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Drinking Water	537.1 DW	
380-182615-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	537.1 DW	
380-182615-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	537.1 DW	
380-182615-5	AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP073)	Total/NA	Drinking Water	537.1 DW	
380-182615-6	FB: MOANALUA WELLS (331-223-TP202)	Total/NA	Water	537.1 DW	
380-182615-7	FB: HALAWA WELLS UNITS 1 & 2 (331-206-TPC01)	Total/NA	Water	537.1 DW	
380-182615-8	FB: AIEA GULCH WELLS PUMP 1 (331-201-TP101)	Total/NA	Water	537.1 DW	
380-182615-9	FB: AIEA GULCH WELLS PUMP 2 (331-202-TPC02)	Total/NA	Water	537.1 DW	
380-182615-10	FB: AIEA WELLS PUMPS 1&2 (260) (331-203-TF01)	Total/NA	Water	537.1 DW	
MBL 380-186508/20-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-186508/22-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-186508/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-182615-1 MS	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	537.1 DW	
380-182615-1 MSD	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	537.1 DW	

Prep Batch: 186651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-182615-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	533	
380-182615-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Drinking Water	533	
380-182615-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	533	
380-182615-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	533	
380-182615-5	AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP073)	Total/NA	Drinking Water	533	
380-182615-6	FB: MOANALUA WELLS (331-223-TP202)	Total/NA	Water	533	
380-182615-7	FB: HALAWA WELLS UNITS 1 & 2 (331-206-TPC01)	Total/NA	Water	533	
380-182615-8	FB: AIEA GULCH WELLS PUMP 1 (331-201-TP101)	Total/NA	Water	533	
380-182615-9	FB: AIEA GULCH WELLS PUMP 2 (331-202-TPC02)	Total/NA	Water	533	
380-182615-10	FB: AIEA WELLS PUMPS 1&2 (260) (331-203-TF01)	Total/NA	Water	533	
MBL 380-186651/20-A	Method Blank	Total/NA	Water	533	
LCS 380-186651/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-186651/21-A	Lab Control Sample	Total/NA	Water	533	
380-182615-1 MS	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	533	
380-182615-1 MSD	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	533	

Analysis Batch: 186700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-182615-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	533	186651
380-182615-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Drinking Water	533	186651
380-182615-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	533	186651
380-182615-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	533	186651
380-182615-5	AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP073)	Total/NA	Drinking Water	533	186651
380-182615-6	FB: MOANALUA WELLS (331-223-TP202)	Total/NA	Water	533	186651
380-182615-7	FB: HALAWA WELLS UNITS 1 & 2 (331-206-TPC01)	Total/NA	Water	533	186651
380-182615-8	FB: AIEA GULCH WELLS PUMP 1 (331-201-TP101)	Total/NA	Water	533	186651
380-182615-9	FB: AIEA GULCH WELLS PUMP 2 (331-202-TPC02)	Total/NA	Water	533	186651
380-182615-10	FB: AIEA WELLS PUMPS 1&2 (260) (331-203-TF01)	Total/NA	Water	533	186651
MBL 380-186651/20-A	Method Blank	Total/NA	Water	533	186651
LCS 380-186651/22-A	Lab Control Sample	Total/NA	Water	533	186651
MRL 380-186651/21-A	Lab Control Sample	Total/NA	Water	533	186651
380-182615-1 MS	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	533	186651

QC Association Summary

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

Job ID: 380-182615-1
 SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
 P1/P2, Aiea Wells Pumps 1&2

LCMS (Continued)

Analysis Batch: 186700 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-182615-1 MSD	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	533	186651

Analysis Batch: 186727

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-182615-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	537.1	186508
380-182615-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Drinking Water	537.1	186508
380-182615-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	537.1	186508
380-182615-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	537.1	186508
380-182615-5	AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP073)	Total/NA	Drinking Water	537.1	186508
380-182615-6	FB: MOANALUA WELLS (331-223-TP202)	Total/NA	Water	537.1	186508
380-182615-7	FB: HALAWA WELLS UNITS 1 & 2 (331-206-TP01)	Total/NA	Water	537.1	186508
380-182615-8	FB: AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	537.1	186508
380-182615-9	FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	537.1	186508
380-182615-10	FB: AIEA WELLS PUMPS 1&2 (260) (331-203-TP073)	Total/NA	Water	537.1	186508
MBL 380-186508/20-A	Method Blank	Total/NA	Water	537.1	186508
LCS 380-186508/22-A	Lab Control Sample	Total/NA	Water	537.1	186508
MRL 380-186508/21-A	Lab Control Sample	Total/NA	Water	537.1	186508
380-182615-1 MS	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	537.1	186508
380-182615-1 MSD	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	537.1	186508

Lab Chronicle

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

Job ID: 380-182615-1
 SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
 P1/P2, Aiea Wells Pumps 1&2

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-182615-1

Date Collected: 11/10/25 10:32

Matrix: Drinking Water

Date Received: 11/13/25 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			186651	N8NE	EA POM	11/14/25 17:48
Total/NA	Analysis	533		1	186700	M7ML	EA POM	11/15/25 17:56
Total/NA	Prep	537.1 DW			186508	X5FS	EA POM	11/14/25 09:19
Total/NA	Analysis	537.1		1	186727	M7ML	EA POM	11/16/25 12:38

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)

Lab Sample ID: 380-182615-2

Date Collected: 11/10/25 10:59

Matrix: Drinking Water

Date Received: 11/13/25 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			186651	N8NE	EA POM	11/14/25 17:48
Total/NA	Analysis	533		1	186700	M7ML	EA POM	11/15/25 18:25
Total/NA	Prep	537.1 DW			186508	X5FS	EA POM	11/14/25 09:19
Total/NA	Analysis	537.1		1	186727	M7ML	EA POM	11/16/25 13:07

Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071)

Lab Sample ID: 380-182615-3

Date Collected: 11/10/25 11:28

Matrix: Drinking Water

Date Received: 11/13/25 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			186651	N8NE	EA POM	11/14/25 17:48
Total/NA	Analysis	533		1	186700	M7ML	EA POM	11/15/25 18:35
Total/NA	Prep	537.1 DW			186508	X5FS	EA POM	11/14/25 09:19
Total/NA	Analysis	537.1		1	186727	M7ML	EA POM	11/16/25 13:16

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

Lab Sample ID: 380-182615-4

Date Collected: 11/10/25 11:47

Matrix: Drinking Water

Date Received: 11/13/25 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			186651	N8NE	EA POM	11/14/25 17:48
Total/NA	Analysis	533		1	186700	M7ML	EA POM	11/15/25 18:45
Total/NA	Prep	537.1 DW			186508	X5FS	EA POM	11/14/25 09:19
Total/NA	Analysis	537.1		1	186727	M7ML	EA POM	11/16/25 13:26

Lab Chronicle

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

Job ID: 380-182615-1
 SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
 P1/P2, Aiea Wells Pumps 1&2

Client Sample ID: AIEA WELLS PUMPS 1&2 P2 (260)
(331-203-TP400)

Lab Sample ID: 380-182615-5

Date Collected: 11/10/25 12:07
Date Received: 11/13/25 09:30

Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			186651	N8NE	EA POM	11/14/25 17:48
Total/NA	Analysis	533		1	186700	M7ML	EA POM	11/15/25 18:54
Total/NA	Prep	537.1 DW			186508	X5FS	EA POM	11/14/25 09:19
Total/NA	Analysis	537.1		1	186727	M7ML	EA POM	11/16/25 13:35

Client Sample ID: FB: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-182615-6

Date Collected: 11/10/25 10:32
Date Received: 11/13/25 09:30

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			186651	N8NE	EA POM	11/14/25 17:48
Total/NA	Analysis	533		1	186700	M7ML	EA POM	11/15/25 19:04
Total/NA	Prep	537.1 DW			186508	X5FS	EA POM	11/14/25 09:19
Total/NA	Analysis	537.1		1	186727	M7ML	EA POM	11/16/25 13:45

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

Lab Sample ID: 380-182615-7

Date Collected: 11/10/25 10:59
Date Received: 11/13/25 09:30

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			186651	N8NE	EA POM	11/14/25 17:48
Total/NA	Analysis	533		1	186700	M7ML	EA POM	11/15/25 19:14
Total/NA	Prep	537.1 DW			186508	X5FS	EA POM	11/14/25 09:19
Total/NA	Analysis	537.1		1	186727	M7ML	EA POM	11/16/25 13:55

Client Sample ID: FB: AIEA GULCH WELLS PUMP 1
(331-201-TP071)

Lab Sample ID: 380-182615-8

Date Collected: 11/10/25 11:28
Date Received: 11/13/25 09:30

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			186651	N8NE	EA POM	11/14/25 17:48
Total/NA	Analysis	533		1	186700	M7ML	EA POM	11/15/25 19:23
Total/NA	Prep	537.1 DW			186508	X5FS	EA POM	11/14/25 09:19
Total/NA	Analysis	537.1		1	186727	M7ML	EA POM	11/16/25 14:04

Lab Chronicle

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

Job ID: 380-182615-1
 SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
 P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-182615-9

**Date Collected: 11/10/25 11:47
 Date Received: 11/13/25 09:30**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			186651	N8NE	EA POM	11/14/25 17:48
Total/NA	Analysis	533		1	186700	M7ML	EA POM	11/15/25 19:33
Total/NA	Prep	537.1 DW			186508	X5FS	EA POM	11/14/25 09:19
Total/NA	Analysis	537.1		1	186727	M7ML	EA POM	11/16/25 14:14

**Client Sample ID: FB: AIEA WELLS PUMPS 1&2 (260)
 (331-203-TP400)**

Lab Sample ID: 380-182615-10

**Date Collected: 11/10/25 12:07
 Date Received: 11/13/25 09:30**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			186651	N8NE	EA POM	11/14/25 17:48
Total/NA	Analysis	533		1	186700	M7ML	EA POM	11/15/25 19:43
Total/NA	Prep	537.1 DW			186508	X5FS	EA POM	11/14/25 09:19
Total/NA	Analysis	537.1		1	186727	M7ML	EA POM	11/16/25 14:23

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: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

- 1
- 2
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Method Summary

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

Job ID: 380-182615-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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: 380-182615-1
 SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch
 Wells P1/P2, Aiea Wells Pumps 1&2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
380-182615-1	MOANALUA WELLS (331-223-TP202)	Drinking Water	11/10/25 10:32	11/13/25 09:30	HI0000331
380-182615-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	Drinking Water	11/10/25 10:59	11/13/25 09:30	HI0000331
380-182615-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Drinking Water	11/10/25 11:28	11/13/25 09:30	HI0000331
380-182615-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Drinking Water	11/10/25 11:47	11/13/25 09:30	HI0000331
380-182615-5	AIEA WELLS PUMPS 1&2 P2 (260) (331-203-TP400)	Drinking Water	11/10/25 12:07	11/13/25 09:30	HI0000331
380-182615-6	FB: MOANALUA WELLS (331-223-TP202)	Water	11/10/25 10:32	11/13/25 09:30	HI0000331
380-182615-7	FB: HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Water	11/10/25 10:59	11/13/25 09:30	HI0000331
380-182615-8	FB: AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Water	11/10/25 11:28	11/13/25 09:30	HI0000331
380-182615-9	FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Water	11/10/25 11:47	11/13/25 09:30	HI0000331
380-182615-10	FB: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	Water	11/10/25 12:07	11/13/25 09:30	HI0000331



Chain of Custody Record

Client Information		Sampler bailey	Lab PM Lopez, Maria	Carrier Tracking No(s) 380-27941-2757.2	COC No 380-27941-2757.2
Client Contact Kirk Iwamoto		Phone +1 808 748 5840	E-Mail Maria.Lopez@et.eurofinsus.com	State of Origin	Page: Page 2 of 2
Company City & County of Honolulu		PWSID:		Job #	
Address 630 South Beretania Street, Chemistry Lab		Due Date Requested.	Analysis Requested		
City Honolulu		TAT Requested (days):	533 All Analytes		
State, Zip: HI 96843		Compliance Project: Δ No	537 1_DW_PREC - 537 1 Full List		
Phone: 808-748-5840 (tel)		PO # C20525101 exp 05312023	525.2_PREC (MOD) 525plus PLUS TICs		
Email kiwamoto@hbws.org		WO #	80158_DRO_LL_CS HNL Ranges C10-C24/C24-C36/C8		
Project Name: RED-HILL/HBWS sites Event Desc: RUSH Weekly Red Hill		Project # 38001111	80158_GRO_LL (MOD) GRO		
Site:		SSOW#	SUBCONTRACT - 625 PAH Phys (LL (EAL) + TICs)		
Sample Identification		Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)		
Sample Description	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Preservation Code:	Matrix (Water, Solid, Other)
Moanalua Wells	10-Nov-2025	1032 G	G	Water	Water
Halawa Wells Units 1&2 P1	10-Nov-2025	1059 G	G	Water	Water
Aiea Gulch Wells Pump 1	10-Nov-2025	1128 G	G	Water	Water
Aiea Gulch Wells Pump 2	10-Nov-2025	1147 G	G	Water	Water
Aiea Wells Pumps 1&2 (260) P2	10-Nov-2025	1207 G	G	Water	Water
FB Moanalua Wells	10-Nov-2025	1032			
FB Halawa Wells Units 1&2	10-Nov-2025	1059			
FB Aiea Gulch Wells Pump 1	10-Nov-2025	1128			
FB Aiea Gulch Wells Pump 2	10-Nov-2025	1147			
FB Aiea Wells Pumps 1&2 (260)	10-Nov-2025	1207			
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I II III IV Other (specify)					
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Special Instructions/QC Requirements					
Empty Kit Relinquished by:		Date	Time		
Relinquished by		Date/Time: 12/16/2025 1400	Company HBWS		
Custody Seals Intact: Δ Yes Δ No		Date/Time: 11/13/25 930	Company PLAP		
Custody Seal No.		Date/Time:	Company		
Cooler Temperature(s) °C and Other Remarks: (B31A) 1.5 + 0.0 1.5 gel frozen		Method of Shipment: FedEx 8859 8619 4270			



ORIGIN ID HIK-A (808) 748-5840
BWS CHEM LAB
HONOLULU BOARD OF WATER SUPPLY
630 S. BERETANIA ST
CHEMICAL LABORATORY
HONOLULU, HI 96843
UNITED STATES US

SHIP DATE: 12NOV25
ACTWGT: 57.00 LB
CAD: 258050552/INET14535

BILL RECIPIENT

TO EUROFINS RECEIVING DEPARTMENT
EUROFINS DRINKING WATER TESTING
941 CORPORATE CENTER DR

58HJ2/501C/59F2

POMONA CA 91768

(626) 386-1100 REF:

INV: PO: DEPT:



THU - 13 NOV 10:30A
PRIORITY OVERNIGHT

3 of 6

MPS# 8859 8619 4291

0263

MIS# 8859 8619 4270

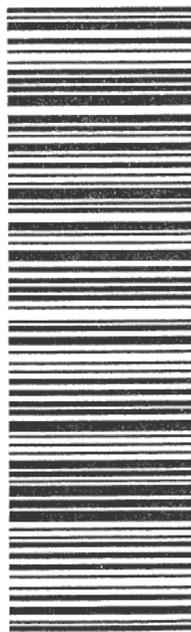
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WM ONTA

CA-US

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(631A) 41 + 0-0-41 get frozen
Eurofins Pomona 11/13/25 930

After printing this label
CONSIGNEE COPY - PLEASE PLACE IN FRONT OF POUCH
1 Fold the printed page along the horizontal line
2 Place label in shipping pouch and affix it to your shipment

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Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-182615-1

SDG Number: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells P1/P2, Aiea Wells Pumps 1&2

Login Number: 182615

List Source: Eurofins Eaton Analytical Pomona

List Number: 1

Creator: Segura, Ryan

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	

