

ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

RED-HILL
PFAS Moanalua Wells, Halawa Wells, Aiea Gulch Wells P1/P2, Aiea Wells Pump 1&2
RUSH Weekly Red Hill

JOB NUMBER

380-169640-1

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: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

Qualifiers

LCMS

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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: 380-169640-1

Job ID: 380-169640-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-169640-1

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

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

Receipt

The samples were received on 9/4/2025 9:56 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 5 coolers at receipt time were 1.9°C, 2.1°C, 3.6°C, 4.4°C and 4.8°C.

PFAS

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

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Detection Summary

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169640-1

PWSID Number: HI0000331

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	2.1		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.1		2.0	ng/L	1		537.1	Total/NA

Client Sample ID: HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-169640-2

P1(331-206-TP065)

PWSID Number: HI0000331

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	2.6		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.4		2.0	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	2.1		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.3		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

Lab Sample ID: 380-169640-3

(331-201-TP071)

PWSID Number: HI0000331

No Detections.

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-169640-4

(331-202-TP072)

PWSID Number: HI0000331

No Detections.

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

Lab Sample ID: 380-169640-5

(331-203-TP400)

PWSID Number: HI0000331

No Detections.

Client Sample ID: FB MOANALUA WELLS

Lab Sample ID: 380-169640-6

PWSID Number: HI0000331

No Detections.

Client Sample ID: FB HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-169640-7

PWSID Number: HI0000331

No Detections.

Client Sample ID: FB AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-169640-8

PWSID Number: HI0000331

No Detections.

Client Sample ID: FB AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-169640-9

PWSID Number: HI0000331

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: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169640-10

PWSID Number: HI0000331

☐ No Detections.

This Detection Summary does not include radiochemical test results.

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Client Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169640-1

Date Collected: 09/02/25 10:13

Matrix: Drinking Water

Date Received: 09/04/25 09:56

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		09/05/25 15:27	09/06/25 18:05	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:05	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:05	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:05	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:05	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:05	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:05	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:05	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:05	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:05	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:05	1
Perfluorooctanesulfonic acid (PFOS)	2.1		2.0	ng/L		09/05/25 15:27	09/06/25 18:05	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:05	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:05	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:05	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:05	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:05	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:05	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:05	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:05	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:05	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:05	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:05	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:05	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:05	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	99		50 - 200	09/05/25 15:27	09/06/25 18:05	1
13C6 PFDA	108		50 - 200	09/05/25 15:27	09/06/25 18:05	1
13C5 PFHxA	107		50 - 200	09/05/25 15:27	09/06/25 18:05	1
13C4 PFHpA	107		50 - 200	09/05/25 15:27	09/06/25 18:05	1
13C8 PFOA	112		50 - 200	09/05/25 15:27	09/06/25 18:05	1
13C9 PFNA	115		50 - 200	09/05/25 15:27	09/06/25 18:05	1
13C7 PFUnA	112		50 - 200	09/05/25 15:27	09/06/25 18:05	1
13C2 PFDoA	108		50 - 200	09/05/25 15:27	09/06/25 18:05	1
13C4 PFBA	111		50 - 200	09/05/25 15:27	09/06/25 18:05	1
13C5 PFPeA	114		50 - 200	09/05/25 15:27	09/06/25 18:05	1
13C3 PFBS	109		50 - 200	09/05/25 15:27	09/06/25 18:05	1
13C3 PFHxS	107		50 - 200	09/05/25 15:27	09/06/25 18:05	1

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Client Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169640-1

Date Collected: 09/02/25 10:13

Matrix: Drinking Water

Date Received: 09/04/25 09:56

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	107		50 - 200	09/05/25 15:27	09/06/25 18:05	1
13C2-4:2-FTS	125		50 - 200	09/05/25 15:27	09/06/25 18:05	1
13C2-6:2-FTS	127		50 - 200	09/05/25 15:27	09/06/25 18:05	1
13C2-8:2-FTS	112		50 - 200	09/05/25 15:27	09/06/25 18:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:00	1
Perfluorooctanesulfonic acid (PFOS)	2.1		2.0	ng/L		09/05/25 10:46	09/06/25 20:00	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:00	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:00	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:00	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:00	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:00	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:00	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:00	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:00	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:00	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:00	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:00	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:00	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:00	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:00	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:00	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:00	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	107		70 - 130			09/05/25 10:46	09/06/25 20:00	1
13C2 PFHxA	107		70 - 130			09/05/25 10:46	09/06/25 20:00	1
13C2 PFDA	104		70 - 130			09/05/25 10:46	09/06/25 20:00	1
13C3-GenX	107		70 - 130			09/05/25 10:46	09/06/25 20:00	1

Client Sample ID: HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-169640-2

P1(331-206-TP065)

Date Collected: 09/02/25 10:41

Matrix: Drinking Water

Date Received: 09/04/25 09:56

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		09/05/25 15:27	09/06/25 18:24	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:24	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:24	1

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Client Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169640-2

Date Collected: 09/02/25 10:41
Date Received: 09/04/25 09:56

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
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:24	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:24	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:24	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:24	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:24	1
Perfluorohexanesulfonic acid (PFHxS)	2.6		2.0	ng/L		09/05/25 15:27	09/06/25 18:24	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:24	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:24	1
Perfluorooctanesulfonic acid (PFOS)	2.4		2.0	ng/L		09/05/25 15:27	09/06/25 18:24	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:24	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:24	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:24	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:24	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:24	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:24	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:24	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:24	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:24	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:24	1
Perfluoropentanoic acid (PFPeA)	2.1		2.0	ng/L		09/05/25 15:27	09/06/25 18:24	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:24	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:24	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	90		50 - 200	09/05/25 15:27	09/06/25 18:24	1
13C6 PFDA	102		50 - 200	09/05/25 15:27	09/06/25 18:24	1
13C5 PFHxA	94		50 - 200	09/05/25 15:27	09/06/25 18:24	1
13C4 PFHpA	98		50 - 200	09/05/25 15:27	09/06/25 18:24	1
13C8 PFOA	103		50 - 200	09/05/25 15:27	09/06/25 18:24	1
13C9 PFNA	102		50 - 200	09/05/25 15:27	09/06/25 18:24	1
13C7 PFUnA	105		50 - 200	09/05/25 15:27	09/06/25 18:24	1
13C2 PFDoA	98		50 - 200	09/05/25 15:27	09/06/25 18:24	1
13C4 PFBA	96		50 - 200	09/05/25 15:27	09/06/25 18:24	1
13C5 PFPeA	99		50 - 200	09/05/25 15:27	09/06/25 18:24	1
13C3 PFBS	106		50 - 200	09/05/25 15:27	09/06/25 18:24	1
13C3 PFHxS	107		50 - 200	09/05/25 15:27	09/06/25 18:24	1
13C8 PFOS	106		50 - 200	09/05/25 15:27	09/06/25 18:24	1
13C2-4:2-FTS	135		50 - 200	09/05/25 15:27	09/06/25 18:24	1
13C2-6:2-FTS	124		50 - 200	09/05/25 15:27	09/06/25 18:24	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169640-2

**Date Collected: 09/02/25 10:41
Date Received: 09/04/25 09:56**

**Matrix: Drinking Water
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	114		50 - 200	09/05/25 15:27	09/06/25 18:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:10	1
Perfluorooctanesulfonic acid (PFOS)	2.3		2.0	ng/L		09/05/25 10:46	09/06/25 20:10	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:10	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:10	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:10	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:10	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:10	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:10	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:10	1
Perfluorohexanesulfonic acid (PFHxS)	2.7		2.0	ng/L		09/05/25 10:46	09/06/25 20:10	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:10	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:10	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:10	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:10	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:10	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:10	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:10	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:10	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	101		70 - 130			09/05/25 10:46	09/06/25 20:10	1
13C2 PFHxA	105		70 - 130			09/05/25 10:46	09/06/25 20:10	1
13C2 PFDA	109		70 - 130			09/05/25 10:46	09/06/25 20:10	1
13C3-GenX	109		70 - 130			09/05/25 10:46	09/06/25 20:10	1

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

Lab Sample ID: 380-169640-3

**Date Collected: 09/02/25 11:10
Date Received: 09/04/25 09:56**

**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		09/05/25 15:27	09/06/25 18:34	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:34	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:34	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169640-3

**Date Collected: 09/02/25 11:10
Date Received: 09/04/25 09:56**

**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
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:34	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:34	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:34	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:34	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:34	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:34	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:34	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:34	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:34	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:34	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:34	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:34	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:34	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:34	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:34	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:34	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:34	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:34	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:34	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:34	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:34	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:34	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	100		50 - 200	09/05/25 15:27	09/06/25 18:34	1
13C6 PFDA	113		50 - 200	09/05/25 15:27	09/06/25 18:34	1
13C5 PFHxA	110		50 - 200	09/05/25 15:27	09/06/25 18:34	1
13C4 PFHpA	114		50 - 200	09/05/25 15:27	09/06/25 18:34	1
13C8 PFOA	115		50 - 200	09/05/25 15:27	09/06/25 18:34	1
13C9 PFNA	116		50 - 200	09/05/25 15:27	09/06/25 18:34	1
13C7 PFUnA	116		50 - 200	09/05/25 15:27	09/06/25 18:34	1
13C2 PFDoA	108		50 - 200	09/05/25 15:27	09/06/25 18:34	1
13C4 PFBA	113		50 - 200	09/05/25 15:27	09/06/25 18:34	1
13C5 PFPeA	112		50 - 200	09/05/25 15:27	09/06/25 18:34	1
13C3 PFBS	109		50 - 200	09/05/25 15:27	09/06/25 18:34	1
13C3 PFHxS	108		50 - 200	09/05/25 15:27	09/06/25 18:34	1
13C8 PFOS	109		50 - 200	09/05/25 15:27	09/06/25 18:34	1
13C2-4:2-FTS	128		50 - 200	09/05/25 15:27	09/06/25 18:34	1
13C2-6:2-FTS	122		50 - 200	09/05/25 15:27	09/06/25 18:34	1
13C2-8:2-FTS	110		50 - 200	09/05/25 15:27	09/06/25 18:34	1

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Client Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169640-3

Date Collected: 09/02/25 11:10
Date Received: 09/04/25 09:56

Matrix: Drinking Water
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		09/05/25 10:46	09/06/25 20:21	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:21	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:21	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:21	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:21	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:21	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:21	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:21	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:21	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:21	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:21	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:21	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:21	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:21	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:21	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:21	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:21	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	108		70 - 130			09/05/25 10:46	09/06/25 20:21	1
13C2 PFHxA	109		70 - 130			09/05/25 10:46	09/06/25 20:21	1
13C2 PFDA	107		70 - 130			09/05/25 10:46	09/06/25 20:21	1
13C3-GenX	107		70 - 130			09/05/25 10:46	09/06/25 20:21	1

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

Lab Sample ID: 380-169640-4

Date Collected: 09/02/25 11:29
Date Received: 09/04/25 09:56

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		09/05/25 15:27	09/06/25 18:43	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:43	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:43	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:43	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:43	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:43	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:43	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:43	1

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Client Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169640-4

Date Collected: 09/02/25 11:29
Date Received: 09/04/25 09:56

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
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:43	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:43	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:43	1
Perfluorooctanesulfonic acid (PFOS)	2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:43	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:43	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:43	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:43	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:43	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:43	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:43	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:43	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:43	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:43	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:43	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:43	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:43	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 18:43	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	103		50 - 200			09/05/25 15:27	09/06/25 18:43	1
13C6 PFDA	116		50 - 200			09/05/25 15:27	09/06/25 18:43	1
13C5 PFHxA	109		50 - 200			09/05/25 15:27	09/06/25 18:43	1
13C4 PFHpA	115		50 - 200			09/05/25 15:27	09/06/25 18:43	1
13C8 PFOA	118		50 - 200			09/05/25 15:27	09/06/25 18:43	1
13C9 PFNA	115		50 - 200			09/05/25 15:27	09/06/25 18:43	1
13C7 PFUnA	115		50 - 200			09/05/25 15:27	09/06/25 18:43	1
13C2 PFDoA	110		50 - 200			09/05/25 15:27	09/06/25 18:43	1
13C4 PFBA	111		50 - 200			09/05/25 15:27	09/06/25 18:43	1
13C5 PFPeA	115		50 - 200			09/05/25 15:27	09/06/25 18:43	1
13C3 PFBS	108		50 - 200			09/05/25 15:27	09/06/25 18:43	1
13C3 PFHxS	112		50 - 200			09/05/25 15:27	09/06/25 18:43	1
13C8 PFOS	112		50 - 200			09/05/25 15:27	09/06/25 18:43	1
13C2-4:2-FTS	134		50 - 200			09/05/25 15:27	09/06/25 18:43	1
13C2-6:2-FTS	121		50 - 200			09/05/25 15:27	09/06/25 18:43	1
13C2-8:2-FTS	115		50 - 200			09/05/25 15:27	09/06/25 18:43	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		09/05/25 10:46	09/06/25 20:32	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:32	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:32	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169640-4

Date Collected: 09/02/25 11:29
Date Received: 09/04/25 09:56

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		09/05/25 10:46	09/06/25 20:32	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:32	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:32	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:32	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:32	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:32	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:32	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:32	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:32	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:32	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:32	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:32	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:32	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:32	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/05/25 10:46	09/06/25 20:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	110		70 - 130			09/05/25 10:46	09/06/25 20:32	1
13C2 PFHxA	109		70 - 130			09/05/25 10:46	09/06/25 20:32	1
13C2 PFDA	106		70 - 130			09/05/25 10:46	09/06/25 20:32	1
13C3-GenX	108		70 - 130			09/05/25 10:46	09/06/25 20:32	1

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

Lab Sample ID: 380-169640-5

Date Collected: 09/02/25 11:54
Date Received: 09/04/25 09:56

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		09/08/25 07:37	09/08/25 18:49	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/08/25 07:37	09/08/25 18:49	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/08/25 07:37	09/08/25 18:49	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/08/25 07:37	09/08/25 18:49	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/08/25 07:37	09/08/25 18:49	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/08/25 07:37	09/08/25 18:49	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/08/25 07:37	09/08/25 18:49	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/08/25 07:37	09/08/25 18:49	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/08/25 07:37	09/08/25 18:49	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/08/25 07:37	09/08/25 18:49	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/08/25 07:37	09/08/25 18:49	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/08/25 07:37	09/08/25 18:49	1

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Client Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169640-5

Date Collected: 09/02/25 11:54

Matrix: Drinking Water

Date Received: 09/04/25 09:56

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		09/08/25 07:37	09/08/25 18:49	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/08/25 07:37	09/08/25 18:49	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		09/08/25 07:37	09/08/25 18:49	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		09/08/25 07:37	09/08/25 18:49	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		09/08/25 07:37	09/08/25 18:49	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		09/08/25 07:37	09/08/25 18:49	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		09/08/25 07:37	09/08/25 18:49	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		09/08/25 07:37	09/08/25 18:49	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		09/08/25 07:37	09/08/25 18:49	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		09/08/25 07:37	09/08/25 18:49	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		09/08/25 07:37	09/08/25 18:49	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		09/08/25 07:37	09/08/25 18:49	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		09/08/25 07:37	09/08/25 18:49	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	111		50 - 200	09/08/25 07:37	09/08/25 18:49	1
13C6 PFDA	114		50 - 200	09/08/25 07:37	09/08/25 18:49	1
13C5 PFHxA	116		50 - 200	09/08/25 07:37	09/08/25 18:49	1
13C4 PFHpA	116		50 - 200	09/08/25 07:37	09/08/25 18:49	1
13C8 PFOA	120		50 - 200	09/08/25 07:37	09/08/25 18:49	1
13C9 PFNA	121		50 - 200	09/08/25 07:37	09/08/25 18:49	1
13C7 PFUnA	114		50 - 200	09/08/25 07:37	09/08/25 18:49	1
13C2 PFDoA	108		50 - 200	09/08/25 07:37	09/08/25 18:49	1
13C4 PFBA	114		50 - 200	09/08/25 07:37	09/08/25 18:49	1
13C5 PFPeA	118		50 - 200	09/08/25 07:37	09/08/25 18:49	1
13C3 PFBS	118		50 - 200	09/08/25 07:37	09/08/25 18:49	1
13C3 PFHxS	111		50 - 200	09/08/25 07:37	09/08/25 18:49	1
13C8 PFOS	114		50 - 200	09/08/25 07:37	09/08/25 18:49	1
13C2-4:2-FTS	133		50 - 200	09/08/25 07:37	09/08/25 18:49	1
13C2-6:2-FTS	126		50 - 200	09/08/25 07:37	09/08/25 18:49	1
13C2-8:2-FTS	115		50 - 200	09/08/25 07:37	09/08/25 18:49	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:50	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:50	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:50	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:50	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:50	1

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Client Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169640-5

Date Collected: 09/02/25 11:54
Date Received: 09/04/25 09:56

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		09/06/25 04:30	09/07/25 14:50	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:50	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:50	1
Perfluorodecanoic acid (PFDA)	2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:50	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:50	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:50	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:50	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:50	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:50	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:50	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:50	1
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:50	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	107		70 - 130			09/06/25 04:30	09/07/25 14:50	1
13C2 PFHxA	118		70 - 130			09/06/25 04:30	09/07/25 14:50	1
13C2 PFDA	111		70 - 130			09/06/25 04:30	09/07/25 14:50	1
13C3-GenX	112		70 - 130			09/06/25 04:30	09/07/25 14:50	1

Client Sample ID: FB MOANALUA WELLS

Lab Sample ID: 380-169640-6

Date Collected: 09/02/25 10:13
Date Received: 09/04/25 09:56

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-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:02	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:02	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:02	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:02	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:02	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:02	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:02	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:02	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:02	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:02	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:02	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:02	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:02	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:02	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:02	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:02	1

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Client Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

Client Sample ID: FB MOANALUA WELLS

Lab Sample ID: 380-169640-6

Date Collected: 09/02/25 10:13

Matrix: Water

Date Received: 09/04/25 09:56

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		09/05/25 15:27	09/06/25 19:02	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:02	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:02	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:02	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:02	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:02	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:02	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:02	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:02	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	89		50 - 200			09/05/25 15:27	09/06/25 19:02	1
13C6 PFDA	105		50 - 200			09/05/25 15:27	09/06/25 19:02	1
13C5 PFHxA	103		50 - 200			09/05/25 15:27	09/06/25 19:02	1
13C4 PFHpA	100		50 - 200			09/05/25 15:27	09/06/25 19:02	1
13C8 PFOA	103		50 - 200			09/05/25 15:27	09/06/25 19:02	1
13C9 PFNA	107		50 - 200			09/05/25 15:27	09/06/25 19:02	1
13C7 PFUnA	111		50 - 200			09/05/25 15:27	09/06/25 19:02	1
13C2 PFDoA	100		50 - 200			09/05/25 15:27	09/06/25 19:02	1
13C4 PFBA	106		50 - 200			09/05/25 15:27	09/06/25 19:02	1
13C5 PFPeA	104		50 - 200			09/05/25 15:27	09/06/25 19:02	1
13C3 PFBS	108		50 - 200			09/05/25 15:27	09/06/25 19:02	1
13C3 PFHxS	109		50 - 200			09/05/25 15:27	09/06/25 19:02	1
13C8 PFOS	109		50 - 200			09/05/25 15:27	09/06/25 19:02	1
13C2-4:2-FTS	130		50 - 200			09/05/25 15:27	09/06/25 19:02	1
13C2-6:2-FTS	122		50 - 200			09/05/25 15:27	09/06/25 19:02	1
13C2-8:2-FTS	113		50 - 200			09/05/25 15:27	09/06/25 19:02	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:59	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:59	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:59	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:59	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:59	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:59	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:59	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:59	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:59	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:59	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:59	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

Client Sample ID: FB MOANALUA WELLS

Lab Sample ID: 380-169640-6

Date Collected: 09/02/25 10:13

Matrix: Water

Date Received: 09/04/25 09:56

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		09/06/25 04:30	09/07/25 14:59	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:59	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:59	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:59	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:59	1
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:59	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 14:59	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	103		70 - 130			09/06/25 04:30	09/07/25 14:59	1
13C2 PFHxA	111		70 - 130			09/06/25 04:30	09/07/25 14:59	1
13C2 PFDA	112		70 - 130			09/06/25 04:30	09/07/25 14:59	1
13C3-GenX	106		70 - 130			09/06/25 04:30	09/07/25 14:59	1

Client Sample ID: FB HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-169640-7

Date Collected: 09/02/25 10:41

Matrix: Water

Date Received: 09/04/25 09:56

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		09/05/25 15:27	09/06/25 19:12	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:12	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:12	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:12	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:12	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:12	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:12	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:12	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:12	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:12	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:12	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:12	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:12	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:12	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:12	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:12	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:12	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:12	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:12	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:12	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

Client Sample ID: FB HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-169640-7

Date Collected: 09/02/25 10:41

Matrix: Water

Date Received: 09/04/25 09:56

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-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:12	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:12	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:12	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:12	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:12	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	94		50 - 200			09/05/25 15:27	09/06/25 19:12	1
13C6 PFDA	106		50 - 200			09/05/25 15:27	09/06/25 19:12	1
13C5 PFHxA	107		50 - 200			09/05/25 15:27	09/06/25 19:12	1
13C4 PFHpA	104		50 - 200			09/05/25 15:27	09/06/25 19:12	1
13C8 PFOA	107		50 - 200			09/05/25 15:27	09/06/25 19:12	1
13C9 PFNA	109		50 - 200			09/05/25 15:27	09/06/25 19:12	1
13C7 PFUnA	110		50 - 200			09/05/25 15:27	09/06/25 19:12	1
13C2 PFDoA	104		50 - 200			09/05/25 15:27	09/06/25 19:12	1
13C4 PFBA	103		50 - 200			09/05/25 15:27	09/06/25 19:12	1
13C5 PFPeA	105		50 - 200			09/05/25 15:27	09/06/25 19:12	1
13C3 PFBS	113		50 - 200			09/05/25 15:27	09/06/25 19:12	1
13C3 PFHxS	109		50 - 200			09/05/25 15:27	09/06/25 19:12	1
13C8 PFOS	112		50 - 200			09/05/25 15:27	09/06/25 19:12	1
13C2-4:2-FTS	130		50 - 200			09/05/25 15:27	09/06/25 19:12	1
13C2-6:2-FTS	127		50 - 200			09/05/25 15:27	09/06/25 19:12	1
13C2-8:2-FTS	120		50 - 200			09/05/25 15:27	09/06/25 19:12	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:09	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:09	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:09	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:09	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:09	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:09	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:09	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:09	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:09	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:09	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:09	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:09	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:09	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:09	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:09	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:09	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:09	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

Client Sample ID: FB HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-169640-7

Date Collected: 09/02/25 10:41

Matrix: Water

Date Received: 09/04/25 09:56

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		09/06/25 04:30	09/07/25 15:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	108		70 - 130			09/06/25 04:30	09/07/25 15:09	1
13C2 PFHxA	114		70 - 130			09/06/25 04:30	09/07/25 15:09	1
13C2 PFDA	110		70 - 130			09/06/25 04:30	09/07/25 15:09	1
13C3-GenX	105		70 - 130			09/06/25 04:30	09/07/25 15:09	1

Client Sample ID: FB AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-169640-8

Date Collected: 09/02/25 11:10

Matrix: Water

Date Received: 09/04/25 09:56

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		09/05/25 15:27	09/06/25 19:21	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:21	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:21	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:21	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:21	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:21	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:21	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:21	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:21	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:21	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:21	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:21	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:21	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:21	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:21	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:21	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:21	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:21	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:21	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:21	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:21	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:21	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:21	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:21	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:21	1

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Client Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

Client Sample ID: FB AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-169640-8

Date Collected: 09/02/25 11:10

Matrix: Water

Date Received: 09/04/25 09:56

PWSID Number: HI0000331

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	96		50 - 200	09/05/25 15:27	09/06/25 19:21	1
13C6 PFDA	110		50 - 200	09/05/25 15:27	09/06/25 19:21	1
13C5 PFHxA	110		50 - 200	09/05/25 15:27	09/06/25 19:21	1
13C4 PFHpA	107		50 - 200	09/05/25 15:27	09/06/25 19:21	1
13C8 PFOA	111		50 - 200	09/05/25 15:27	09/06/25 19:21	1
13C9 PFNA	114		50 - 200	09/05/25 15:27	09/06/25 19:21	1
13C7 PFUnA	113		50 - 200	09/05/25 15:27	09/06/25 19:21	1
13C2 PFDoA	104		50 - 200	09/05/25 15:27	09/06/25 19:21	1
13C4 PFBA	102		50 - 200	09/05/25 15:27	09/06/25 19:21	1
13C5 PFPeA	108		50 - 200	09/05/25 15:27	09/06/25 19:21	1
13C3 PFBS	111		50 - 200	09/05/25 15:27	09/06/25 19:21	1
13C3 PFHxS	108		50 - 200	09/05/25 15:27	09/06/25 19:21	1
13C8 PFOS	108		50 - 200	09/05/25 15:27	09/06/25 19:21	1
13C2-4:2-FTS	133		50 - 200	09/05/25 15:27	09/06/25 19:21	1
13C2-6:2-FTS	118		50 - 200	09/05/25 15:27	09/06/25 19:21	1
13C2-8:2-FTS	111		50 - 200	09/05/25 15:27	09/06/25 19:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:18	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:18	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:18	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:18	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:18	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:18	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:18	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:18	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:18	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:18	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:18	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:18	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:18	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:18	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:18	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:18	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:18	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:18	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	107		70 - 130			09/06/25 04:30	09/07/25 15:18	1
13C2 PFHxA	107		70 - 130			09/06/25 04:30	09/07/25 15:18	1
13C2 PFDA	108		70 - 130			09/06/25 04:30	09/07/25 15:18	1
13C3-GenX	104		70 - 130			09/06/25 04:30	09/07/25 15:18	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

Client Sample ID: FB AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-169640-9

Date Collected: 09/02/25 11:29

Matrix: Water

Date Received: 09/04/25 09:56

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 (11CI-PF3OUdS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:31	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9CI-PF3ONS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:31	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:31	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:31	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:31	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:31	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:31	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:31	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:31	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:31	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:31	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:31	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:31	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:31	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:31	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:31	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:31	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:31	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:31	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:31	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:31	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:31	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:31	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:31	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:31	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	99		50 - 200	09/05/25 15:27	09/06/25 19:31	1
13C6 PFDA	110		50 - 200	09/05/25 15:27	09/06/25 19:31	1
13C5 PFHxA	111		50 - 200	09/05/25 15:27	09/06/25 19:31	1
13C4 PFHpA	113		50 - 200	09/05/25 15:27	09/06/25 19:31	1
13C8 PFOA	116		50 - 200	09/05/25 15:27	09/06/25 19:31	1
13C9 PFNA	118		50 - 200	09/05/25 15:27	09/06/25 19:31	1
13C7 PFUnA	114		50 - 200	09/05/25 15:27	09/06/25 19:31	1
13C2 PFDoA	106		50 - 200	09/05/25 15:27	09/06/25 19:31	1
13C4 PFBA	112		50 - 200	09/05/25 15:27	09/06/25 19:31	1
13C5 PFPeA	113		50 - 200	09/05/25 15:27	09/06/25 19:31	1
13C3 PFBS	107		50 - 200	09/05/25 15:27	09/06/25 19:31	1
13C3 PFHxS	109		50 - 200	09/05/25 15:27	09/06/25 19:31	1

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Client Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

Client Sample ID: FB AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-169640-9

Date Collected: 09/02/25 11:29

Matrix: Water

Date Received: 09/04/25 09:56

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	111		50 - 200	09/05/25 15:27	09/06/25 19:31	1
13C2-4:2-FTS	125		50 - 200	09/05/25 15:27	09/06/25 19:31	1
13C2-6:2-FTS	120		50 - 200	09/05/25 15:27	09/06/25 19:31	1
13C2-8:2-FTS	113		50 - 200	09/05/25 15:27	09/06/25 19:31	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:28	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:28	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:28	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:28	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:28	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:28	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:28	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:28	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:28	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:28	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:28	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:28	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:28	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:28	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:28	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:28	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:28	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	108		70 - 130	09/06/25 04:30	09/07/25 15:28	1
13C2 PFHxA	113		70 - 130	09/06/25 04:30	09/07/25 15:28	1
13C2 PFDA	108		70 - 130	09/06/25 04:30	09/07/25 15:28	1
13C3-GenX	105		70 - 130	09/06/25 04:30	09/07/25 15:28	1

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

Lab Sample ID: 380-169640-10

Date Collected: 09/02/25 11:54

Matrix: Water

Date Received: 09/04/25 09:56

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		09/05/25 15:27	09/06/25 19:41	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:41	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:41	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:41	1

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Client Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169640-10

Date Collected: 09/02/25 11:54

Matrix: Water

Date Received: 09/04/25 09:56

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
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:41	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:41	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:41	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:41	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:41	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:41	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:41	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:41	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:41	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:41	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:41	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:41	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:41	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:41	1
Nonafluoro-3,6-dioxahexanoic acid (NFDHA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:41	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:41	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:41	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:41	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:41	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:41	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		09/05/25 15:27	09/06/25 19:41	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	92		50 - 200	09/05/25 15:27	09/06/25 19:41	1
13C6 PFDA	109		50 - 200	09/05/25 15:27	09/06/25 19:41	1
13C5 PFHxA	109		50 - 200	09/05/25 15:27	09/06/25 19:41	1
13C4 PFHpA	110		50 - 200	09/05/25 15:27	09/06/25 19:41	1
13C8 PFOA	112		50 - 200	09/05/25 15:27	09/06/25 19:41	1
13C9 PFNA	114		50 - 200	09/05/25 15:27	09/06/25 19:41	1
13C7 PFUnA	116		50 - 200	09/05/25 15:27	09/06/25 19:41	1
13C2 PFDoA	109		50 - 200	09/05/25 15:27	09/06/25 19:41	1
13C4 PFBA	112		50 - 200	09/05/25 15:27	09/06/25 19:41	1
13C5 PFPeA	119		50 - 200	09/05/25 15:27	09/06/25 19:41	1
13C3 PFBS	106		50 - 200	09/05/25 15:27	09/06/25 19:41	1
13C3 PFHxS	109		50 - 200	09/05/25 15:27	09/06/25 19:41	1
13C8 PFOS	112		50 - 200	09/05/25 15:27	09/06/25 19:41	1
13C2-4:2-FTS	130		50 - 200	09/05/25 15:27	09/06/25 19:41	1
13C2-6:2-FTS	117		50 - 200	09/05/25 15:27	09/06/25 19:41	1
13C2-8:2-FTS	114		50 - 200	09/05/25 15:27	09/06/25 19:41	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169640-10

Date Collected: 09/02/25 11:54

Matrix: Water

Date Received: 09/04/25 09:56

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		09/06/25 04:30	09/07/25 15:37	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:37	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:37	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:37	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:37	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:37	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:37	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:37	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:37	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:37	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:37	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:37	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:37	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:37	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:37	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:37	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:37	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/06/25 04:30	09/07/25 15:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	116		70 - 130	09/06/25 04:30	09/07/25 15:37	1
13C2 PFHxA	114		70 - 130	09/06/25 04:30	09/07/25 15:37	1
13C2 PFDA	112		70 - 130	09/06/25 04:30	09/07/25 15:37	1
13C3-GenX	107		70 - 130	09/06/25 04:30	09/07/25 15:37	1

Action Limit Summary

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169640-1

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 Limit	RL	Method	Prep Type
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.1		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)	2.1		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

Lab Sample ID: 380-169640-2

P1(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 Limit	RL	Method	Prep Type
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.6		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.4		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)	2.3		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: 380-169640-3

(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 Limit	RL	Method	Prep Type
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: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169640-3

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: 380-169640-4

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 (260) P2
(331-203-TP400)
PWSID Number: HI0000331

Lab Sample ID: 380-169640-5

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: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169640-5

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
PWSID Number: HI0000331

Lab Sample ID: 380-169640-6

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
PWSID Number: HI0000331

Lab Sample ID: 380-169640-7

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
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	533	Total/NA

Eurofins Eaton Analytical Pomona

Action Limit Summary

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

Client Sample ID: FB HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-169640-7

(Continued)

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			
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

Lab Sample ID: 380-169640-8

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: FB AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-169640-9

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

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Action Limit Summary

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

Client Sample ID: FB AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-169640-9

(Continued)

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			
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)

Lab Sample ID: 380-169640-10

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

Surrogate Summary

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 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)
380-169640-1	MOANALUA WELLS (331-223-T	107	107	104	107
380-169640-2	HALAWA WELLS UNITS 1 & 2 P1(331-206-TP065)	101	105	109	109
380-169640-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	108	109	107	107
380-169640-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	110	109	106	108
380-169640-5	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	107	118	111	112
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)
380-169499-B-1-A MS	Matrix Spike	103	105	101	98
380-169499-C-1-A MSD	Matrix Spike Duplicate	105	102	104	97
380-169640-6	FB MOANALUA WELLS	103	111	112	106
380-169640-7	FB HALAWA WELLS UNITS 1 & 2	108	114	110	105
380-169640-8	FB AIEA GULCH WELLS PUMP 1	107	107	108	104
380-169640-9	FB AIEA GULCH WELLS PUMP 2	108	113	108	105
380-169640-10	FB AIEA WELLS PUMPS 1&2 (260)	116	114	112	107
380-169714-A-1-B MS	Matrix Spike	107	105	109	107
380-169714-A-1-C MSD	Matrix Spike Duplicate	98	103	108	104
LCS 380-172558/22-A	Lab Control Sample	92	102	101	99
LCS 380-172693/24-A	Lab Control Sample	101	109	108	101
MBL 380-172558/20-A	Method Blank	103	107	106	108
MBL 380-172693/22-A	Method Blank	106	108	118	110
MRL 380-172558/21-A	Lab Control Sample	102	101	100	102
MRL 380-172693/23-A	Lab Control Sample	104	108	112	111
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: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 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)	PFDaA (50-200)
380-169640-1	MOANALUA WELLS (331-223-T	99	108	107	107	112	115	112	108
380-169640-2	HALAWA WELLS UNITS 1 & 2 P1(331-206-TP065)	90	102	94	98	103	102	105	98
380-169640-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	100	113	110	114	115	116	116	108
380-169640-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	103	116	109	115	118	115	115	110
380-169640-5	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	111	114	116	116	120	121	114	108

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)
380-169640-1	MOANALUA WELLS (331-223-T	111	114	109	107	107	125	127	112
380-169640-2	HALAWA WELLS UNITS 1 & 2 P1(331-206-TP065)	96	99	106	107	106	135	124	114
380-169640-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	113	112	109	108	109	128	122	110
380-169640-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	111	115	108	112	112	134	121	115
380-169640-5	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	114	118	118	111	114	133	126	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
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

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)
380-169518-J-1-A MSD	Matrix Spike Duplicate	109	107	110	106	111	114	111	108
380-169518-K-1-A MS	Matrix Spike	106	114	112	110	113	114	112	106
380-169640-6	FB MOANALUA WELLS	89	105	103	100	103	107	111	100
380-169640-7	FB HALAWA WELLS UNITS 1 & 2	94	106	107	104	107	109	110	104

Eurofins Eaton Analytical Pomona

Isotope Dilution Summary

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

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)
380-169640-8	FB AIEA GULCH WELLS PUMP	96	110	110	107	111	114	113	104
380-169640-9	FB AIEA GULCH WELLS PUMP 2	99	110	111	113	116	118	114	106
380-169640-10	FB AIEA WELLS PUMPS 1&2 (260)	92	109	109	110	112	114	116	109
380-169845-J-1-A MS	Matrix Spike	106	114	112	108	116	115	113	108
380-169845-K-1-A MSD	Matrix Spike Duplicate	106	116	115	115	120	121	119	114
LCS 380-172615/22-A	Lab Control Sample	110	110	115	108	112	111	113	105
LCS 380-172822/22-A	Lab Control Sample	109	113	110	112	119	117	115	111
MBL 380-172615/20-A	Method Blank	102	112	115	113	115	114	113	106
MBL 380-172822/20-A	Method Blank	88	99	101	101	104	103	102	93
MRL 380-172615/21-A	Lab Control Sample	103	108	115	114	115	114	115	104
MRL 380-172822/21-A	Lab Control Sample	96	109	107	108	113	114	112	108

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)
380-169518-J-1-A MSD	Matrix Spike Duplicate	108	112	112	112	112	137	128	117
380-169518-K-1-A MS	Matrix Spike	108	118	118	109	111	140	128	118
380-169640-6	FB MOANALUA WELLS	106	104	108	109	109	130	122	113
380-169640-7	FB HALAWA WELLS UNITS 1 & 2	103	105	113	109	112	130	127	120
380-169640-8	FB AIEA GULCH WELLS PUMP 1	102	108	111	108	108	133	118	111
380-169640-9	FB AIEA GULCH WELLS PUMP 2	112	113	107	109	111	125	120	113
380-169640-10	FB AIEA WELLS PUMPS 1&2 (260)	112	119	106	109	112	130	117	114
380-169845-J-1-A MS	Matrix Spike	111	114	111	110	111	130	123	116
380-169845-K-1-A MSD	Matrix Spike Duplicate	111	113	114	112	111	130	126	116
LCS 380-172615/22-A	Lab Control Sample	111	111	113	110	106	122	116	111
LCS 380-172822/22-A	Lab Control Sample	110	109	112	112	108	122	118	115
MBL 380-172615/20-A	Method Blank	107	114	109	110	110	130	110	110
MBL 380-172822/20-A	Method Blank	94	100	105	101	100	121	111	107
MRL 380-172615/21-A	Lab Control Sample	111	110	115	107	108	129	119	109
MRL 380-172822/21-A	Lab Control Sample	104	108	106	104	106	119	115	108

Surrogate Legend

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

Isotope Dilution Summary

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

- 1
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- 16
- 17

QC Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: MBL 380-172615/20-A

Matrix: Water

Analysis Batch: 172714

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 172615

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		09/05/25 15:27	09/06/25 15:51	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		09/05/25 15:27	09/06/25 15:51	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		09/05/25 15:27	09/06/25 15:51	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		09/05/25 15:27	09/06/25 15:51	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		09/05/25 15:27	09/06/25 15:51	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		09/05/25 15:27	09/06/25 15:51	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		09/05/25 15:27	09/06/25 15:51	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		09/05/25 15:27	09/06/25 15:51	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		09/05/25 15:27	09/06/25 15:51	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		09/05/25 15:27	09/06/25 15:51	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		09/05/25 15:27	09/06/25 15:51	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		09/05/25 15:27	09/06/25 15:51	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		09/05/25 15:27	09/06/25 15:51	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		09/05/25 15:27	09/06/25 15:51	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		09/05/25 15:27	09/06/25 15:51	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		09/05/25 15:27	09/06/25 15:51	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		09/05/25 15:27	09/06/25 15:51	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		09/05/25 15:27	09/06/25 15:51	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		09/05/25 15:27	09/06/25 15:51	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		09/05/25 15:27	09/06/25 15:51	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		09/05/25 15:27	09/06/25 15:51	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		09/05/25 15:27	09/06/25 15:51	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		09/05/25 15:27	09/06/25 15:51	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		09/05/25 15:27	09/06/25 15:51	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		09/05/25 15:27	09/06/25 15:51	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	102		50 - 200	09/05/25 15:27	09/06/25 15:51	1
13C6 PFDA	112		50 - 200	09/05/25 15:27	09/06/25 15:51	1
13C5 PFHxA	115		50 - 200	09/05/25 15:27	09/06/25 15:51	1
13C4 PFHpA	113		50 - 200	09/05/25 15:27	09/06/25 15:51	1
13C8 PFOA	115		50 - 200	09/05/25 15:27	09/06/25 15:51	1
13C9 PFNA	114		50 - 200	09/05/25 15:27	09/06/25 15:51	1
13C7 PFUnA	113		50 - 200	09/05/25 15:27	09/06/25 15:51	1
13C2 PFDoA	106		50 - 200	09/05/25 15:27	09/06/25 15:51	1
13C4 PFBA	107		50 - 200	09/05/25 15:27	09/06/25 15:51	1
13C5 PFPeA	114		50 - 200	09/05/25 15:27	09/06/25 15:51	1
13C3 PFBS	109		50 - 200	09/05/25 15:27	09/06/25 15:51	1

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QC Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: MBL 380-172615/20-A

Matrix: Water

Analysis Batch: 172714

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 172615

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFHxS	110		50 - 200	09/05/25 15:27	09/06/25 15:51	1
13C8 PFOS	110		50 - 200	09/05/25 15:27	09/06/25 15:51	1
13C2-4:2-FTS	130		50 - 200	09/05/25 15:27	09/06/25 15:51	1
13C2-6:2-FTS	110		50 - 200	09/05/25 15:27	09/06/25 15:51	1
13C2-8:2-FTS	110		50 - 200	09/05/25 15:27	09/06/25 15:51	1

Lab Sample ID: LCS 380-172615/22-A

Matrix: Water

Analysis Batch: 172714

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 172615

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	120	112		ng/L		93	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	120	119		ng/L		99	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	120	121		ng/L		101	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	120	115		ng/L		96	70 - 130
Perfluorobutanesulfonic acid (PFBS)	120	113		ng/L		94	70 - 130
Perfluorodecanoic acid (PFDA)	120	115		ng/L		96	70 - 130
Perfluorododecanoic acid (PFDoA)	120	119		ng/L		99	70 - 130
Perfluoroheptanoic acid (PFHpA)	120	123		ng/L		102	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	120	116		ng/L		96	70 - 130
Perfluorohexanoic acid (PFHxA)	120	113		ng/L		94	70 - 130
Perfluorononanoic acid (PFNA)	120	117		ng/L		97	70 - 130
Perfluorooctanesulfonic acid (PFOS)	120	119		ng/L		99	70 - 130
Perfluorooctanoic acid (PFOA)	120	111		ng/L		92	70 - 130
Perfluoroundecanoic acid (PFUnA)	120	116		ng/L		96	70 - 130
Perfluorobutanoic acid (PFBA)	120	115		ng/L		96	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	120	113		ng/L		94	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	120	115		ng/L		96	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	120	114		ng/L		95	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	120	114		ng/L		95	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	120	110		ng/L		91	70 - 130
Perfluoro 3 methoxypropanoic acid (PFMPA)	120	107		ng/L		89	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	120	111		ng/L		92	70 - 130
Perfluoropentanoic acid (PFPeA)	120	111		ng/L		92	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: LCS 380-172615/22-A

Matrix: Water

Analysis Batch: 172714

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 172615

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanesulfonic acid (PFHpS)	120	114		ng/L		95	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	120	112		ng/L		93	70 - 130
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits				
13C3 HFPO-DA	110		50 - 200				
13C6 PFDA	110		50 - 200				
13C5 PFHxA	115		50 - 200				
13C4 PFHpA	108		50 - 200				
13C8 PFOA	112		50 - 200				
13C9 PFNA	111		50 - 200				
13C7 PFUnA	113		50 - 200				
13C2 PFDoA	105		50 - 200				
13C4 PFBA	111		50 - 200				
13C5 PFPeA	111		50 - 200				
13C3 PFBS	113		50 - 200				
13C3 PFHxS	110		50 - 200				
13C8 PFOS	106		50 - 200				
13C2-4:2-FTS	122		50 - 200				
13C2-6:2-FTS	116		50 - 200				
13C2-8:2-FTS	111		50 - 200				

Lab Sample ID: MRL 380-172615/21-A

Matrix: Water

Analysis Batch: 172714

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 172615

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.90	J	ng/L		95	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	2.01	1.73	J	ng/L		86	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	1.93	J	ng/L		96	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.03	J	ng/L		101	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	1.90	J	ng/L		95	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	1.95	J	ng/L		97	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.13	J	ng/L		106	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.10	J	ng/L		105	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.15	J	ng/L		107	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	1.88	J	ng/L		94	50 - 150
Perfluorononanoic acid (PFNA)	2.01	1.96	J	ng/L		98	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.07	J	ng/L		103	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	1.99	J	ng/L		99	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: MRL 380-172615/21-A

Matrix: Water

Analysis Batch: 172714

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 172615

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	2.01	1.97	J	ng/L		98	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	2.21	J	ng/L		110	50 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	1.98	J	ng/L		98	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	2.23	J	ng/L		111	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	1.92	J	ng/L		95	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	1.73	J	ng/L		86	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	2.01	1.78	J	ng/L		89	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	1.74	J	ng/L		87	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	1.87	J	ng/L		93	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	1.87	J	ng/L		93	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.01	2.02	J	ng/L		101	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	1.96	J	ng/L		98	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	Limits
13C3 HFPO-DA	103		50 - 200
13C6 PFDA	108		50 - 200
13C5 PFHxA	115		50 - 200
13C4 PFHpA	114		50 - 200
13C8 PFOA	115		50 - 200
13C9 PFNA	114		50 - 200
13C7 PFUnA	115		50 - 200
13C2 PFDoA	104		50 - 200
13C4 PFBA	111		50 - 200
13C5 PFPeA	110		50 - 200
13C3 PFBS	115		50 - 200
13C3 PFHxS	107		50 - 200
13C8 PFOS	108		50 - 200
13C2-4:2-FTS	129		50 - 200
13C2-6:2-FTS	119		50 - 200
13C2-8:2-FTS	109		50 - 200

Lab Sample ID: 380-169518-J-1-A MSD

Matrix: Water

Analysis Batch: 172714

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 172615

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.5	54.9		ng/L		91	70 - 130	1	30

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169518-J-1-A MSD

Matrix: Water

Analysis Batch: 172714

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 172615

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.5	54.1		ng/L		89	70 - 130	4	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.5	59.4		ng/L		98	70 - 130	2	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.5	56.6		ng/L		94	70 - 130	8	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.5	61.6		ng/L		102	70 - 130	6	30
Perfluorodecanoic acid (PFDA)	<2.0		60.5	61.0		ng/L		101	70 - 130	4	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.5	60.0		ng/L		99	70 - 130	0	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.5	59.9		ng/L		99	70 - 130	3	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.5	58.8		ng/L		97	70 - 130	2	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.5	58.6		ng/L		97	70 - 130	1	30
Perfluorononanoic acid (PFNA)	<2.0		60.5	57.6		ng/L		95	70 - 130	4	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.5	58.4		ng/L		97	70 - 130	3	30
Perfluorooctanoic acid (PFOA)	<2.0		60.5	55.6		ng/L		92	70 - 130	2	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.5	59.0		ng/L		98	70 - 130	1	30
Perfluorobutanoic acid (PFBA)	<2.0		60.5	57.1		ng/L		94	70 - 130	8	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.5	61.2		ng/L		101	70 - 130	1	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.5	61.8		ng/L		102	70 - 130	3	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.4		60.5	62.3		ng/L		99	70 - 130	3	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.5	54.7		ng/L		91	70 - 130	13	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.5	56.6		ng/L		94	70 - 130	1	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.5	55.2		ng/L		91	70 - 130	4	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.5	53.0		ng/L		88	70 - 130	5	30
Perfluoropentanoic acid (PFPeA)	<2.0		60.5	55.8		ng/L		92	70 - 130	1	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.5	56.1		ng/L		93	70 - 130	0	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.5	60.0		ng/L		99	70 - 130	1	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C3 HFPO-DA	109		50 - 200
13C6 PFDA	107		50 - 200
13C5 PFHxA	110		50 - 200
13C4 PFHpA	106		50 - 200
13C8 PFOA	111		50 - 200
13C9 PFNA	114		50 - 200
13C7 PFUnA	111		50 - 200
13C2 PFDoA	108		50 - 200

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QC Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169518-J-1-A MSD

Matrix: Water

Analysis Batch: 172714

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 172615

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C4 PFBA	108		50 - 200
13C5 PFPeA	112		50 - 200
13C3 PFBS	112		50 - 200
13C3 PFHxS	112		50 - 200
13C8 PFOS	112		50 - 200
13C2-4:2-FTS	137		50 - 200
13C2-6:2-FTS	128		50 - 200
13C2-8:2-FTS	117		50 - 200

Lab Sample ID: 380-169518-K-1-A MS

Matrix: Water

Analysis Batch: 172714

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 172615

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		60.5	55.7		ng/L		92	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.5	56.1		ng/L		93	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.5	60.7		ng/L		100	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.5	61.1		ng/L		101	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.5	58.2		ng/L		96	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.5	58.7		ng/L		97	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.5	60.2		ng/L		100	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.5	61.9		ng/L		102	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.5	59.9		ng/L		99	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		60.5	59.5		ng/L		98	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.5	59.8		ng/L		99	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.5	60.0		ng/L		99	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.5	56.8		ng/L		94	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.5	58.2		ng/L		96	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.5	61.6		ng/L		102	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.5	60.7		ng/L		100	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.5	59.7		ng/L		99	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.4		60.5	60.3		ng/L		96	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.5	62.4		ng/L		103	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<2.0		60.5	56.0		ng/L		93	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.5	57.6		ng/L		95	70 - 130

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QC Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169518-K-1-A MS

Matrix: Water

Analysis Batch: 172714

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 172615

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.5	55.5		ng/L		92	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		60.5	55.4		ng/L		92	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.5	55.8		ng/L		92	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.5	60.4		ng/L		100	70 - 130
Isotope Dilution	MS %Recovery	MS Qualifier	MS Limits						
13C3 HFPO-DA	106		50 - 200						
13C6 PFDA	114		50 - 200						
13C5 PFHxA	112		50 - 200						
13C4 PFHpA	110		50 - 200						
13C8 PFOA	113		50 - 200						
13C9 PFNA	114		50 - 200						
13C7 PFUnA	112		50 - 200						
13C2 PFDoA	106		50 - 200						
13C4 PFBA	108		50 - 200						
13C5 PFPeA	118		50 - 200						
13C3 PFBS	118		50 - 200						
13C3 PFHxS	109		50 - 200						
13C8 PFOS	111		50 - 200						
13C2-4:2-FTS	140		50 - 200						
13C2-6:2-FTS	128		50 - 200						
13C2-8:2-FTS	118		50 - 200						

Lab Sample ID: MBL 380-172822/20-A

Matrix: Water

Analysis Batch: 172913

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 172822

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		09/08/25 07:37	09/08/25 17:14	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		09/08/25 07:37	09/08/25 17:14	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		09/08/25 07:37	09/08/25 17:14	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		09/08/25 07:37	09/08/25 17:14	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		09/08/25 07:37	09/08/25 17:14	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		09/08/25 07:37	09/08/25 17:14	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		09/08/25 07:37	09/08/25 17:14	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		09/08/25 07:37	09/08/25 17:14	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		09/08/25 07:37	09/08/25 17:14	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		09/08/25 07:37	09/08/25 17:14	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		09/08/25 07:37	09/08/25 17:14	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		09/08/25 07:37	09/08/25 17:14	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		09/08/25 07:37	09/08/25 17:14	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		09/08/25 07:37	09/08/25 17:14	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		09/08/25 07:37	09/08/25 17:14	1

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QC Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: MBL 380-172822/20-A

Matrix: Water

Analysis Batch: 172913

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 172822

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		09/08/25 07:37	09/08/25 17:14	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		09/08/25 07:37	09/08/25 17:14	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	0.48		2.0	ng/L		09/08/25 07:37	09/08/25 17:14	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		09/08/25 07:37	09/08/25 17:14	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<0.25		2.0	ng/L		09/08/25 07:37	09/08/25 17:14	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		09/08/25 07:37	09/08/25 17:14	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		09/08/25 07:37	09/08/25 17:14	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		09/08/25 07:37	09/08/25 17:14	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		09/08/25 07:37	09/08/25 17:14	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		09/08/25 07:37	09/08/25 17:14	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	88		50 - 200	09/08/25 07:37	09/08/25 17:14	1
13C6 PFDA	99		50 - 200	09/08/25 07:37	09/08/25 17:14	1
13C5 PFHxA	101		50 - 200	09/08/25 07:37	09/08/25 17:14	1
13C4 PFHpA	101		50 - 200	09/08/25 07:37	09/08/25 17:14	1
13C8 PFOA	104		50 - 200	09/08/25 07:37	09/08/25 17:14	1
13C9 PFNA	103		50 - 200	09/08/25 07:37	09/08/25 17:14	1
13C7 PFUnA	102		50 - 200	09/08/25 07:37	09/08/25 17:14	1
13C2 PFDoA	93		50 - 200	09/08/25 07:37	09/08/25 17:14	1
13C4 PFBA	94		50 - 200	09/08/25 07:37	09/08/25 17:14	1
13C5 PFPeA	100		50 - 200	09/08/25 07:37	09/08/25 17:14	1
13C3 PFBS	105		50 - 200	09/08/25 07:37	09/08/25 17:14	1
13C3 PFHxS	101		50 - 200	09/08/25 07:37	09/08/25 17:14	1
13C8 PFOS	100		50 - 200	09/08/25 07:37	09/08/25 17:14	1
13C2-4:2-FTS	121		50 - 200	09/08/25 07:37	09/08/25 17:14	1
13C2-6:2-FTS	111		50 - 200	09/08/25 07:37	09/08/25 17:14	1
13C2-8:2-FTS	107		50 - 200	09/08/25 07:37	09/08/25 17:14	1

Lab Sample ID: LCS 380-172822/22-A

Matrix: Water

Analysis Batch: 172913

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 172822

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	120	104		ng/L		86	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	120	109		ng/L		90	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	120	111		ng/L		92	70 - 130

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QC Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: LCS 380-172822/22-A

Matrix: Water

Analysis Batch: 172913

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 172822

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	120	110		ng/L		91	70 - 130
Dimer Acid (HFPO-DA/GenX)							
Perfluorobutanesulfonic acid (PFBS)	120	114		ng/L		95	70 - 130
Perfluorodecanoic acid (PFDA)	120	113		ng/L		94	70 - 130
Perfluorododecanoic acid (PFDoA)	120	112		ng/L		93	70 - 130
Perfluoroheptanoic acid (PFHpA)	120	110		ng/L		91	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	120	110		ng/L		91	70 - 130
Perfluorohexanoic acid (PFHxA)	120	110		ng/L		92	70 - 130
Perfluorononanoic acid (PFNA)	120	107		ng/L		89	70 - 130
Perfluorooctanesulfonic acid (PFOS)	120	113		ng/L		94	70 - 130
Perfluorooctanoic acid (PFOA)	120	102		ng/L		85	70 - 130
Perfluoroundecanoic acid (PFUnA)	120	110		ng/L		91	70 - 130
Perfluorobutanoic acid (PFBA)	120	110		ng/L		91	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	120	108		ng/L		90	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	120	109		ng/L		91	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	120	112		ng/L		93	70 - 130
Nonafluoro-3,6-dioxahexanoic acid (NFDHA)	120	110		ng/L		91	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	120	106		ng/L		88	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	120	102		ng/L		85	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	120	107		ng/L		89	70 - 130
Perfluoropentanoic acid (PFPeA)	120	108		ng/L		90	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	120	109		ng/L		90	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	120	112		ng/L		93	70 - 130

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C3 HFPO-DA	109		50 - 200
13C6 PFDA	113		50 - 200
13C5 PFHxA	110		50 - 200
13C4 PFHpA	112		50 - 200
13C8 PFOA	119		50 - 200
13C9 PFNA	117		50 - 200
13C7 PFUnA	115		50 - 200
13C2 PFDoA	111		50 - 200
13C4 PFBA	110		50 - 200
13C5 PFPeA	109		50 - 200
13C3 PFBS	112		50 - 200
13C3 PFHxS	112		50 - 200

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QC Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: LCS 380-172822/22-A

Matrix: Water

Analysis Batch: 172913

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 172822

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C8 PFOS	108		50 - 200
13C2-4:2-FTS	122		50 - 200
13C2-6:2-FTS	118		50 - 200
13C2-8:2-FTS	115		50 - 200

Lab Sample ID: MRL 380-172822/21-A

Matrix: Water

Analysis Batch: 172913

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 172822

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.84	J	ng/L		92	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	1.85	J	ng/L		92	50 - 150
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	2.01	2.07	J	ng/L		103	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.19	J	ng/L		109	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.13	J	ng/L		106	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	1.97	J	ng/L		98	50 - 150
Perfluorododecanoic acid (PFDaA)	2.01	2.06	J	ng/L		103	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.08	J	ng/L		104	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.06	J	ng/L		102	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.01	J	ng/L		100	50 - 150
Perfluorononanoic acid (PFNA)	2.01	1.98	J	ng/L		98	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.17	J	ng/L		108	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	1.96	J	ng/L		98	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.02	J	ng/L		100	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	2.00	J	ng/L		100	50 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	2.17	J	ng/L		108	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	2.17	J	ng/L		108	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	2.18	J	ng/L		109	50 - 150
Nonafluoro-3,6-dioxahexanoic acid (NFDHA)	2.01	2.05	J	ng/L		102	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.01	1.93	J	ng/L		96	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	1.88	J	ng/L		94	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	1.81	J	ng/L		90	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	2.07	J	ng/L		103	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: MRL 380-172822/21-A

Matrix: Water

Analysis Batch: 172913

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 172822

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanesulfonic acid (PFHpS)	2.01	2.10	J	ng/L		105	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	2.00	J	ng/L		99	50 - 150
Isotope Dilution	MRL %Recovery	MRL Qualifier	Limits				
13C3 HFPO-DA	96		50 - 200				
13C6 PFDA	109		50 - 200				
13C5 PFHxA	107		50 - 200				
13C4 PFHpA	108		50 - 200				
13C8 PFOA	113		50 - 200				
13C9 PFNA	114		50 - 200				
13C7 PFUnA	112		50 - 200				
13C2 PFDoA	108		50 - 200				
13C4 PFBA	104		50 - 200				
13C5 PFPeA	108		50 - 200				
13C3 PFBS	106		50 - 200				
13C3 PFHxS	104		50 - 200				
13C8 PFOS	106		50 - 200				
13C2-4:2-FTS	119		50 - 200				
13C2-6:2-FTS	115		50 - 200				
13C2-8:2-FTS	108		50 - 200				

Lab Sample ID: 380-169845-J-1-A MS

Matrix: Water

Analysis Batch: 172913

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 172822

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		121	109		ng/L		90	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		121	111		ng/L		92	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		121	120		ng/L		99	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		121	119		ng/L		98	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		121	118		ng/L		98	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		121	113		ng/L		94	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		121	119		ng/L		98	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		121	117		ng/L		97	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		121	114		ng/L		94	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		121	113		ng/L		93	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		121	114		ng/L		94	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		121	116		ng/L		96	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		121	107		ng/L		88	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169845-J-1-A MS

Matrix: Water

Analysis Batch: 172913

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 172822

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	<2.0		121	115		ng/L		95	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		121	117		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		121	117		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		121	117		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		121	115		ng/L		95	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		121	110		ng/L		91	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		121	114		ng/L		94	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		121	105		ng/L		87	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		121	111		ng/L		92	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		121	108		ng/L		89	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		121	110		ng/L		91	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		121	116		ng/L		95	70 - 130

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C3 HFPO-DA	106		50 - 200
13C6 PFDA	114		50 - 200
13C5 PFHxA	112		50 - 200
13C4 PFHpA	108		50 - 200
13C8 PFOA	116		50 - 200
13C9 PFNA	115		50 - 200
13C7 PFUnA	113		50 - 200
13C2 PFDoA	108		50 - 200
13C4 PFBA	111		50 - 200
13C5 PFPeA	114		50 - 200
13C3 PFBS	111		50 - 200
13C3 PFHxS	110		50 - 200
13C8 PFOS	111		50 - 200
13C2-4:2-FTS	130		50 - 200
13C2-6:2-FTS	123		50 - 200
13C2-8:2-FTS	116		50 - 200

Lab Sample ID: 380-169845-K-1-A MSD

Matrix: Water

Analysis Batch: 172913

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 172822

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS)	<2.0		120	105		ng/L		87	70 - 130	3	30

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169845-K-1-A MSD

Matrix: Water

Analysis Batch: 172913

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 172822

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid(9Cl-PF3ONS)	<2.0		120	112		ng/L		93	70 - 130	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		120	114		ng/L		95	70 - 130	5	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		120	118		ng/L		98	70 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		120	115		ng/L		96	70 - 130	2	30
Perfluorodecanoic acid (PFDA)	<2.0		120	110		ng/L		91	70 - 130	3	30
Perfluorododecanoic acid (PFDoA)	<2.0		120	115		ng/L		95	70 - 130	4	30
Perfluoroheptanoic acid (PFHpA)	<2.0		120	112		ng/L		93	70 - 130	4	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		120	113		ng/L		94	70 - 130	1	30
Perfluorohexanoic acid (PFHxA)	<2.0		120	112		ng/L		93	70 - 130	1	30
Perfluorononanoic acid (PFNA)	<2.0		120	110		ng/L		91	70 - 130	4	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		120	116		ng/L		97	70 - 130	1	30
Perfluorooctanoic acid (PFOA)	<2.0		120	107		ng/L		88	70 - 130	0	30
Perfluoroundecanoic acid (PFUnA)	<2.0		120	111		ng/L		92	70 - 130	4	30
Perfluorobutanoic acid (PFBA)	<2.0		120	116		ng/L		96	70 - 130	1	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		120	112		ng/L		93	70 - 130	5	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		120	112		ng/L		93	70 - 130	4	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		120	110		ng/L		91	70 - 130	4	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		120	105		ng/L		87	70 - 130	4	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		120	105		ng/L		87	70 - 130	8	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		120	113		ng/L		94	70 - 130	8	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		120	107		ng/L		89	70 - 130	4	30
Perfluoropentanoic acid (PFPeA)	<2.0		120	111		ng/L		92	70 - 130	3	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		120	109		ng/L		91	70 - 130	1	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		120	112		ng/L		93	70 - 130	3	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C3 HFPO-DA	106		50 - 200
13C6 PFDA	116		50 - 200
13C5 PFHxA	115		50 - 200
13C4 PFHpA	115		50 - 200
13C8 PFOA	120		50 - 200
13C9 PFNA	121		50 - 200
13C7 PFUnA	119		50 - 200
13C2 PFDoA	114		50 - 200

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169845-K-1-A MSD

Matrix: Water

Analysis Batch: 172913

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 172822

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C4 PFBA	111		50 - 200
13C5 PFPeA	113		50 - 200
13C3 PFBS	114		50 - 200
13C3 PFHxS	112		50 - 200
13C8 PFOS	111		50 - 200
13C2-4:2-FTS	130		50 - 200
13C2-6:2-FTS	126		50 - 200
13C2-8:2-FTS	116		50 - 200

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

Lab Sample ID: MBL 380-172558/20-A

Matrix: Water

Analysis Batch: 172708

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 172558

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		09/05/25 10:46	09/06/25 16:15	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		09/05/25 10:46	09/06/25 16:15	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		09/05/25 10:46	09/06/25 16:15	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		09/05/25 10:46	09/06/25 16:15	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		09/05/25 10:46	09/06/25 16:15	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		09/05/25 10:46	09/06/25 16:15	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		09/05/25 10:46	09/06/25 16:15	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		09/05/25 10:46	09/06/25 16:15	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		09/05/25 10:46	09/06/25 16:15	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		09/05/25 10:46	09/06/25 16:15	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		09/05/25 10:46	09/06/25 16:15	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		09/05/25 10:46	09/06/25 16:15	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		09/05/25 10:46	09/06/25 16:15	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		09/05/25 10:46	09/06/25 16:15	1
Perfluorotridecanoic acid (PFTrDA)	<0.36		2.0	ng/L		09/05/25 10:46	09/06/25 16:15	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		09/05/25 10:46	09/06/25 16:15	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		09/05/25 10:46	09/06/25 16:15	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		09/05/25 10:46	09/06/25 16:15	1

Surrogate	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	103		70 - 130	09/05/25 10:46	09/06/25 16:15	1
13C2 PFHxA	107		70 - 130	09/05/25 10:46	09/06/25 16:15	1
13C2 PFDA	106		70 - 130	09/05/25 10:46	09/06/25 16:15	1
13C3-GenX	108		70 - 130	09/05/25 10:46	09/06/25 16:15	1

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QC Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: LCS 380-172558/22-A

Matrix: Water

Analysis Batch: 172708

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 172558

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	50.1	48.6		ng/L		97	70 - 130
Perfluorooctanesulfonic acid (PFOS)	50.1	49.7		ng/L		99	70 - 130
Perfluoroundecanoic acid (PFUnA)	50.1	48.8		ng/L		97	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	50.1	46.4		ng/L		93	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	50.1	46.2		ng/L		92	70 - 130
Perfluorohexanoic acid (PFHxA)	50.1	49.7		ng/L		99	70 - 130
Perfluorododecanoic acid (PFDoA)	50.1	48.6		ng/L		97	70 - 130
Perfluorooctanoic acid (PFOA)	50.1	49.3		ng/L		98	70 - 130
Perfluorodecanoic acid (PFDA)	50.1	50.3		ng/L		100	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	50.1	50.6		ng/L		101	70 - 130
Perfluorobutanesulfonic acid (PFBS)	50.1	50.5		ng/L		101	70 - 130
Perfluoroheptanoic acid (PFHpA)	50.1	50.1		ng/L		100	70 - 130
Perfluorononanoic acid (PFNA)	50.1	49.4		ng/L		99	70 - 130
Perfluorotetradecanoic acid (PFTA)	50.1	49.0		ng/L		98	70 - 130
Perfluorotridecanoic acid (PFTrDA)	50.1	49.7		ng/L		99	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	50.1	49.7		ng/L		99	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	50.1	48.2		ng/L		96	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	50.1	47.6		ng/L		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
d5-NEtFOSAA	92		70 - 130
13C2 PFHxA	102		70 - 130
13C2 PFDA	101		70 - 130
13C3-GenX	99		70 - 130

Lab Sample ID: MRL 380-172558/21-A

Matrix: Water

Analysis Batch: 172708

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 172558

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	2.13	J	ng/L		106	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.10	J	ng/L		105	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.00	J	ng/L		100	50 - 150

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QC Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: MRL 380-172558/21-A

Matrix: Water

Analysis Batch: 172708

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 172558

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	2.15	J	ng/L		107	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	2.28	J	ng/L		114	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	2.00	J	ng/L		100	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	1.95	J	ng/L		97	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.00	J	ng/L		100	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.03	J	ng/L		101	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.17	J	ng/L		108	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.04	J	ng/L		102	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.10	J	ng/L		105	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.09	J	ng/L		104	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.00	2.00	J	ng/L		100	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.00	2.06	J	ng/L		103	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	2.07	J	ng/L		103	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	1.98	J	ng/L		99	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	2.05	J	ng/L		102	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
d5-NEtFOSAA	102		70 - 130
13C2 PFHxA	101		70 - 130
13C2 PFDA	100		70 - 130
13C3-GenX	102		70 - 130

Lab Sample ID: 380-169499-B-1-A MS

Matrix: Water

Analysis Batch: 172708

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 172558

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	<2.0		50.3	45.8		ng/L		91	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorooctanesulfonic acid (PFOS)	<2.0		50.3	49.6		ng/L		99	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		50.3	49.5		ng/L		98	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		50.3	50.5		ng/L		100	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		50.3	49.8		ng/L		99	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		50.3	49.9		ng/L		98	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		50.3	47.4		ng/L		94	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169499-B-1-A MS

Matrix: Water

Analysis Batch: 172708

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 172558

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec		
	Result	Qualifier	Added	Result	Qualifier			Limits	Limits		
Perfluorooctanoic acid (PFOA)	<2.0		50.3	51.9		ng/L		103	70 - 130		
Perfluorodecanoic acid (PFDA)	<2.0		50.3	49.1		ng/L		98	70 - 130		
Perfluorohexanesulfonic acid (PFHxS)	<2.0		50.3	49.9		ng/L		99	70 - 130		
Perfluorobutanesulfonic acid (PFBS)	<2.0		50.3	46.1		ng/L		92	70 - 130		
Perfluoroheptanoic acid (PFHpA)	<2.0		50.3	54.3		ng/L		107	70 - 130		
Perfluorononanoic acid (PFNA)	<2.0		50.3	51.6		ng/L		102	70 - 130		
Perfluorotetradecanoic acid (PFTA)	<2.0	F1	50.3	34.9	F1	ng/L		69	70 - 130		
Perfluorotridecanoic acid (PFTTrDA)	<2.0		50.3	43.8		ng/L		87	70 - 130		
9-Chlorohexadecafluoro-3-oxan onane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		50.3	49.6		ng/L		99	70 - 130		
11-Chloroeicosafluoro-3-oxaund ecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		50.3	42.9		ng/L		85	70 - 130		
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		50.3	49.5		ng/L		98	70 - 130		

Lab Sample ID: 380-169499-C-1-A MSD

Matrix: Water

Analysis Batch: 172708

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 172558

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		50.3	45.8		ng/L		91	70 - 130	0	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		50.3	51.6		ng/L		103	70 - 130	4	30
Perfluoroundecanoic acid (PFUnA)	<2.0		50.3	48.1		ng/L		96	70 - 130	3	30
N-methylperfluorooctanesulfona midoacetic acid (NMeFOSAA)	<2.0		50.3	51.0		ng/L		101	70 - 130	1	30
N-ethylperfluorooctanesulfonami doacetic acid (NEtFOSAA)	<2.0		50.3	51.0		ng/L		101	70 - 130	2	30
Perfluorohexanoic acid (PFHxA)	<2.0		50.3	49.0		ng/L		96	70 - 130	2	30
Perfluorododecanoic acid (PFDoA)	<2.0		50.3	46.9		ng/L		93	70 - 130	1	30
Perfluorooctanoic acid (PFOA)	<2.0		50.3	51.6		ng/L		103	70 - 130	1	30
Perfluorodecanoic acid (PFDA)	<2.0		50.3	49.6		ng/L		99	70 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		50.3	50.8		ng/L		101	70 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		50.3	47.3		ng/L		94	70 - 130	3	30

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169499-C-1-A MSD

Matrix: Water

Analysis Batch: 172708

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 172558

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluoroheptanoic acid (PFHpA)	<2.0		50.3	55.8		ng/L		110	70 - 130	3	30
Perfluorononanoic acid (PFNA)	<2.0		50.3	50.2		ng/L		100	70 - 130	3	30
Perfluorotetradecanoic acid (PFTA)	<2.0	F1	50.3	33.4	F1	ng/L		66	70 - 130	4	30
Perfluorotridecanoic acid (PFTrDA)	<2.0		50.3	43.4		ng/L		86	70 - 130	1	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		50.3	51.9		ng/L		103	70 - 130	5	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		50.3	44.0		ng/L		87	70 - 130	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		50.3	49.2		ng/L		98	70 - 130	1	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
d5-NEtFOSAA	105		70 - 130
13C2 PFHxA	102		70 - 130
13C2 PFDA	104		70 - 130
13C3-GenX	97		70 - 130

Lab Sample ID: MBL 380-172693/22-A

Matrix: Water

Analysis Batch: 172742

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 172693

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		09/06/25 04:30	09/07/25 12:07	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		09/06/25 04:30	09/07/25 12:07	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		09/06/25 04:30	09/07/25 12:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		09/06/25 04:30	09/07/25 12:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		09/06/25 04:30	09/07/25 12:07	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		09/06/25 04:30	09/07/25 12:07	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		09/06/25 04:30	09/07/25 12:07	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		09/06/25 04:30	09/07/25 12:07	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		09/06/25 04:30	09/07/25 12:07	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		09/06/25 04:30	09/07/25 12:07	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		09/06/25 04:30	09/07/25 12:07	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		09/06/25 04:30	09/07/25 12:07	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		09/06/25 04:30	09/07/25 12:07	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		09/06/25 04:30	09/07/25 12:07	1
Perfluorotridecanoic acid (PFTrDA)	<0.36		2.0	ng/L		09/06/25 04:30	09/07/25 12:07	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		09/06/25 04:30	09/07/25 12:07	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		09/06/25 04:30	09/07/25 12:07	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		09/06/25 04:30	09/07/25 12:07	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: MBL 380-172693/22-A

Matrix: Water

Analysis Batch: 172742

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 172693

Surrogate	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	106		70 - 130	09/06/25 04:30	09/07/25 12:07	1
13C2 PFHxA	108		70 - 130	09/06/25 04:30	09/07/25 12:07	1
13C2 PFDA	118		70 - 130	09/06/25 04:30	09/07/25 12:07	1
13C3-GenX	110		70 - 130	09/06/25 04 30	09/07/25 12 07	1

Lab Sample ID: LCS 380-172693/24-A

Matrix: Water

Analysis Batch: 172742

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 172693

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	25.1	23.8		ng/L		95	70 - 130
Dimer Acid (HFPO-DA/GenX)							
Perfluorooctanesulfonic acid (PFOS)	25.1	26.6		ng/L		106	70 - 130
Perfluoroundecanoic acid (PFUnA)	25.1	25.8		ng/L		103	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.1	23.9		ng/L		95	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.1	23.9		ng/L		95	70 - 130
Perfluorohexanoic acid (PFHxA)	25.1	25.6		ng/L		102	70 - 130
Perfluorododecanoic acid (PFDoA)	25.1	24.7		ng/L		99	70 - 130
Perfluorooctanoic acid (PFOA)	25.1	24.8		ng/L		99	70 - 130
Perfluorodecanoic acid (PFDA)	25.1	24.8		ng/L		99	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	25.1	26.7		ng/L		107	70 - 130
Perfluorobutanesulfonic acid (PFBS)	25.1	25.4		ng/L		101	70 - 130
Perfluoroheptanoic acid (PFHpA)	25.1	25.2		ng/L		100	70 - 130
Perfluorononanoic acid (PFNA)	25.1	24.7		ng/L		98	70 - 130
Perfluorotetradecanoic acid (PFTA)	25.1	25.6		ng/L		102	70 - 130
Perfluorotridecanoic acid (PFTrDA)	25.1	27.3		ng/L		109	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	25.1	26.2		ng/L		104	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	25.1	27.1		ng/L		108	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	25.1	25.2		ng/L		100	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
d5-NEtFOSAA	101		70 - 130
13C2 PFHxA	109		70 - 130
13C2 PFDA	108		70 - 130
13C3-GenX	101		70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: MRL 380-172693/23-A

Matrix: Water

Analysis Batch: 172742

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 172693

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	1.90	J	ng/L		95	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.19	J	ng/L		109	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.08	J	ng/L		104	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	1.98	J	ng/L		99	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	2.12	J	ng/L		106	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	2.13	J	ng/L		106	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.04	J	ng/L		102	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.27	J	ng/L		113	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.16	J	ng/L		108	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.25	J	ng/L		112	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.28	J	ng/L		114	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.06	J	ng/L		103	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.08	J	ng/L		104	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.00	2.15	J	ng/L		107	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.00	2.31	J	ng/L		115	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	2.13	J	ng/L		106	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	2.19	J	ng/L		109	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	2.02	J	ng/L		101	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
d5-NEtFOSAA	104		70 - 130
13C2 PFHxA	108		70 - 130
13C2 PFDA	112		70 - 130
13C3-GenX	111		70 - 130

Lab Sample ID: 380-169714-A-1-B MS

Matrix: Water

Analysis Batch: 172742

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 172693

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		25.1	24.8		ng/L		99	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		25.1	26.6		ng/L		104	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		25.1	25.7		ng/L		102	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169714-A-1-B MS

Matrix: Water

Analysis Batch: 172742

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 172693

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.1	25.6		ng/L		102	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		25.1	27.2		ng/L		109	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		25.1	26.6		ng/L		104	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		25.1	25.2		ng/L		101	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		25.1	26.4		ng/L		102	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		25.1	25.6		ng/L		102	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		25.1	27.8		ng/L		109	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		25.1	27.0		ng/L		108	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		25.1	26.4		ng/L		104	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		25.1	25.8		ng/L		103	70 - 130
Perfluorotetradecanoic acid (PFTA)	<2.0		25.1	25.3		ng/L		101	70 - 130
Perfluorotridecanoic acid (PFTrDA)	<2.0		25.1	27.3		ng/L		109	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		25.1	26.2		ng/L		105	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		25.1	26.5		ng/L		106	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		25.1	26.0		ng/L		104	70 - 130

Surrogate	MS %Recovery	MS Qualifier	MS Limits
d5-NEtFOSAA	107		70 - 130
13C2 PFHxA	105		70 - 130
13C2 PFDA	109		70 - 130
13C3-GenX	107		70 - 130

Lab Sample ID: 380-169714-A-1-C MSD

Matrix: Water

Analysis Batch: 172742

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 172693

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		25.1	24.6		ng/L		98	70 - 130	1	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		25.1	27.2		ng/L		107	70 - 130	2	30
Perfluoroundecanoic acid (PFUnA)	<2.0		25.1	26.0		ng/L		104	70 - 130	1	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.1	24.8		ng/L		99	70 - 130	3	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		25.1	25.5		ng/L		102	70 - 130	6	30
Perfluorohexanoic acid (PFHxA)	<2.0		25.1	26.7		ng/L		104	70 - 130	1	30
Perfluorododecanoic acid (PFDoA)	<2.0		25.1	25.4		ng/L		101	70 - 130	1	30

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QC Sample Results

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169714-A-1-C MSD

Matrix: Water

Analysis Batch: 172742

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 172693

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorooctanoic acid (PFOA)	<2.0		25.1	26.0		ng/L		100	70 - 130	2	30
Perfluorodecanoic acid (PFDA)	<2.0		25.1	26.1		ng/L		104	70 - 130	2	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		25.1	28.2		ng/L		111	70 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		25.1	27.0		ng/L		108	70 - 130	0	30
Perfluoroheptanoic acid (PFHpA)	<2.0		25.1	26.7		ng/L		105	70 - 130	1	30
Perfluorononanoic acid (PFNA)	<2.0		25.1	25.9		ng/L		103	70 - 130	0	30
Perfluorotetradecanoic acid (PFTA)	<2.0		25.1	26.2		ng/L		105	70 - 130	4	30
Perfluorotridecanoic acid (PFTTrDA)	<2.0		25.1	28.1		ng/L		112	70 - 130	3	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		25.1	26.4		ng/L		105	70 - 130	1	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		25.1	26.5		ng/L		106	70 - 130	0	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		25.1	26.6		ng/L		106	70 - 130	2	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
d5-NEtFOSAA	98		70 - 130								
13C2 PFHxA	103		70 - 130								
13C2 PFDA	108		70 - 130								
13C3-GenX	104		70 - 130								

QC Association Summary

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

LCMS

Prep Batch: 172558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-169640-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	537.1 DW	
380-169640-2	HALAWA WELLS UNITS 1 & 2 P1(331-206-TP06	Total/NA	Drinking Water	537.1 DW	
380-169640-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	537.1 DW	
380-169640-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	537.1 DW	
MBL 380-172558/20-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-172558/22-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-172558/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-169499-B-1-A MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-169499-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Prep Batch: 172615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-169640-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	533	
380-169640-2	HALAWA WELLS UNITS 1 & 2 P1(331-206-TP06	Total/NA	Drinking Water	533	
380-169640-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	533	
380-169640-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	533	
380-169640-6	FB MOANALUA WELLS	Total/NA	Water	533	
380-169640-7	FB HALAWA WELLS UNITS 1 & 2	Total/NA	Water	533	
380-169640-8	FB AIEA GULCH WELLS PUMP 1	Total/NA	Water	533	
380-169640-9	FB AIEA GULCH WELLS PUMP 2	Total/NA	Water	533	
380-169640-10	FB AIEA WELLS PUMPS 1&2 (260)	Total/NA	Water	533	
MBL 380-172615/20-A	Method Blank	Total/NA	Water	533	
LCS 380-172615/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-172615/21-A	Lab Control Sample	Total/NA	Water	533	
380-169518-J-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	
380-169518-K-1-A MS	Matrix Spike	Total/NA	Water	533	

Prep Batch: 172693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-169640-5	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP	Total/NA	Drinking Water	537.1 DW	
380-169640-6	FB MOANALUA WELLS	Total/NA	Water	537.1 DW	
380-169640-7	FB HALAWA WELLS UNITS 1 & 2	Total/NA	Water	537.1 DW	
380-169640-8	FB AIEA GULCH WELLS PUMP 1	Total/NA	Water	537.1 DW	
380-169640-9	FB AIEA GULCH WELLS PUMP 2	Total/NA	Water	537.1 DW	
380-169640-10	FB AIEA WELLS PUMPS 1&2 (260)	Total/NA	Water	537.1 DW	
MBL 380-172693/22-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-172693/24-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-172693/23-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-169714-A-1-B MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-169714-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Analysis Batch: 172708

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-169640-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	537.1	172558
380-169640-2	HALAWA WELLS UNITS 1 & 2 P1(331-206-TP06	Total/NA	Drinking Water	537.1	172558
380-169640-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	537.1	172558
380-169640-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	537.1	172558
MBL 380-172558/20-A	Method Blank	Total/NA	Water	537.1	172558
LCS 380-172558/22-A	Lab Control Sample	Total/NA	Water	537.1	172558
MRL 380-172558/21-A	Lab Control Sample	Total/NA	Water	537.1	172558

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QC Association Summary

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

LCMS (Continued)

Analysis Batch: 172708 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-169499-B-1-A MS	Matrix Spike	Total/NA	Water	537.1	172558
380-169499-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1	172558

Analysis Batch: 172714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-169640-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	533	172615
380-169640-2	HALAWA WELLS UNITS 1 & 2 P1(331-206-TP06	Total/NA	Drinking Water	533	172615
380-169640-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	533	172615
380-169640-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	533	172615
380-169640-6	FB MOANALUA WELLS	Total/NA	Water	533	172615
380-169640-7	FB HALAWA WELLS UNITS 1 & 2	Total/NA	Water	533	172615
380-169640-8	FB AIEA GULCH WELLS PUMP 1	Total/NA	Water	533	172615
380-169640-9	FB AIEA GULCH WELLS PUMP 2	Total/NA	Water	533	172615
380-169640-10	FB AIEA WELLS PUMPS 1&2 (260)	Total/NA	Water	533	172615
MBL 380-172615/20-A	Method Blank	Total/NA	Water	533	172615
LCS 380-172615/22-A	Lab Control Sample	Total/NA	Water	533	172615
MRL 380-172615/21-A	Lab Control Sample	Total/NA	Water	533	172615
380-169518-J-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	172615
380-169518-K-1-A MS	Matrix Spike	Total/NA	Water	533	172615

Analysis Batch: 172742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-169640-5	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP	Total/NA	Drinking Water	537.1	172693
380-169640-6	FB MOANALUA WELLS	Total/NA	Water	537.1	172693
380-169640-7	FB HALAWA WELLS UNITS 1 & 2	Total/NA	Water	537.1	172693
380-169640-8	FB AIEA GULCH WELLS PUMP 1	Total/NA	Water	537.1	172693
380-169640-9	FB AIEA GULCH WELLS PUMP 2	Total/NA	Water	537.1	172693
380-169640-10	FB AIEA WELLS PUMPS 1&2 (260)	Total/NA	Water	537.1	172693
MBL 380-172693/22-A	Method Blank	Total/NA	Water	537.1	172693
LCS 380-172693/24-A	Lab Control Sample	Total/NA	Water	537.1	172693
MRL 380-172693/23-A	Lab Control Sample	Total/NA	Water	537.1	172693
380-169714-A-1-B MS	Matrix Spike	Total/NA	Water	537.1	172693
380-169714-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	537.1	172693

Prep Batch: 172822

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-169640-5	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP	Total/NA	Drinking Water	533	
MBL 380-172822/20-A	Method Blank	Total/NA	Water	533	
LCS 380-172822/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-172822/21-A	Lab Control Sample	Total/NA	Water	533	
380-169845-J-1-A MS	Matrix Spike	Total/NA	Water	533	
380-169845-K-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 172913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-169640-5	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP	Total/NA	Drinking Water	533	172822
MBL 380-172822/20-A	Method Blank	Total/NA	Water	533	172822
LCS 380-172822/22-A	Lab Control Sample	Total/NA	Water	533	172822
MRL 380-172822/21-A	Lab Control Sample	Total/NA	Water	533	172822
380-169845-J-1-A MS	Matrix Spike	Total/NA	Water	533	172822

Eurofins Eaton Analytical Pomona

QC Association Summary

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

LCMS (Continued)

Analysis Batch: 172913 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-169845-K-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	172822

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Lab Chronicle

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169640-1

Date Collected: 09/02/25 10:13

Matrix: Drinking Water

Date Received: 09/04/25 09:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			172615	N8NE	EA POM	09/05/25 15:27
Total/NA	Analysis	533		1	172714	M7ML	EA POM	09/06/25 18:05
Total/NA	Prep	537.1 DW			172558	X5FS	EA POM	09/05/25 10:46
Total/NA	Analysis	537.1		1	172708	M7ML	EA POM	09/06/25 20:00

Client Sample ID: HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-169640-2

P1(331-206-TP065)

Date Collected: 09/02/25 10:41

Matrix: Drinking Water

Date Received: 09/04/25 09:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			172615	N8NE	EA POM	09/05/25 15:27
Total/NA	Analysis	533		1	172714	M7ML	EA POM	09/06/25 18:24
Total/NA	Prep	537.1 DW			172558	X5FS	EA POM	09/05/25 10:46
Total/NA	Analysis	537.1		1	172708	M7ML	EA POM	09/06/25 20:10

Client Sample ID: AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-169640-3

(331-201-TP071)

Date Collected: 09/02/25 11:10

Matrix: Drinking Water

Date Received: 09/04/25 09:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			172615	N8NE	EA POM	09/05/25 15:27
Total/NA	Analysis	533		1	172714	M7ML	EA POM	09/06/25 18:34
Total/NA	Prep	537.1 DW			172558	X5FS	EA POM	09/05/25 10:46
Total/NA	Analysis	537.1		1	172708	M7ML	EA POM	09/06/25 20:21

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-169640-4

(331-202-TP072)

Date Collected: 09/02/25 11:29

Matrix: Drinking Water

Date Received: 09/04/25 09:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			172615	N8NE	EA POM	09/05/25 15:27
Total/NA	Analysis	533		1	172714	M7ML	EA POM	09/06/25 18:43
Total/NA	Prep	537.1 DW			172558	X5FS	EA POM	09/05/25 10:46
Total/NA	Analysis	537.1		1	172708	M7ML	EA POM	09/06/25 20:32

Lab Chronicle

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169640-5

**Date Collected: 09/02/25 11:54
Date Received: 09/04/25 09:56**

Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			172822	XTD8	EA POM	09/08/25 07:37
Total/NA	Analysis	533		1	172913	SZ9R	EA POM	09/08/25 18:49
Total/NA	Prep	537.1 DW			172693	E9PK	EA POM	09/06/25 04:30
Total/NA	Analysis	537.1		1	172742	M7ML	EA POM	09/07/25 14:50

Client Sample ID: FB MOANALUA WELLS

Lab Sample ID: 380-169640-6

**Date Collected: 09/02/25 10:13
Date Received: 09/04/25 09:56**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			172615	N8NE	EA POM	09/05/25 15:27
Total/NA	Analysis	533		1	172714	M7ML	EA POM	09/06/25 19:02
Total/NA	Prep	537.1 DW			172693	E9PK	EA POM	09/06/25 04:30
Total/NA	Analysis	537.1		1	172742	M7ML	EA POM	09/07/25 14:59

Client Sample ID: FB HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-169640-7

**Date Collected: 09/02/25 10:41
Date Received: 09/04/25 09:56**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			172615	N8NE	EA POM	09/05/25 15:27
Total/NA	Analysis	533		1	172714	M7ML	EA POM	09/06/25 19:12
Total/NA	Prep	537.1 DW			172693	E9PK	EA POM	09/06/25 04:30
Total/NA	Analysis	537.1		1	172742	M7ML	EA POM	09/07/25 15:09

Client Sample ID: FB AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-169640-8

**Date Collected: 09/02/25 11:10
Date Received: 09/04/25 09:56**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			172615	N8NE	EA POM	09/05/25 15:27
Total/NA	Analysis	533		1	172714	M7ML	EA POM	09/06/25 19:21
Total/NA	Prep	537.1 DW			172693	E9PK	EA POM	09/06/25 04:30
Total/NA	Analysis	537.1		1	172742	M7ML	EA POM	09/07/25 15:18

Client Sample ID: FB AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-169640-9

**Date Collected: 09/02/25 11:29
Date Received: 09/04/25 09:56**

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			172615	N8NE	EA POM	09/05/25 15:27
Total/NA	Analysis	533		1	172714	M7ML	EA POM	09/06/25 19:31
Total/NA	Prep	537.1 DW			172693	E9PK	EA POM	09/06/25 04:30
Total/NA	Analysis	537.1		1	172742	M7ML	EA POM	09/07/25 15:28

Eurofins Eaton Analytical Pomona

Lab Chronicle

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-169640-10

Date Collected: 09/02/25 11:54

Matrix: Water

Date Received: 09/04/25 09:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			172615	N8NE	EA POM	09/05/25 15:27
Total/NA	Analysis	533		1	172714	M7ML	EA POM	09/06/25 19:41
Total/NA	Prep	537.1 DW			172693	E9PK	EA POM	09/06/25 04:30
Total/NA	Analysis	537.1		1	172742	M7ML	EA POM	09/07/25 15:37

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: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 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
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Method Summary

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

Job ID: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 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: 380-169640-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch
Wells P1/P2, Aiea Wells Pump 1&2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
380-169640-1	MOANALUA WELLS (331-223-TP202)	Drinking Water	09/02/25 10:13	09/04/25 09:56	HI0000331
380-169640-2	HALAWA WELLS UNITS 1 & 2 P1(331-206-TP065)	Drinking Water	09/02/25 10:41	09/04/25 09:56	HI0000331
380-169640-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Drinking Water	09/02/25 11:10	09/04/25 09:56	HI0000331
380-169640-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Drinking Water	09/02/25 11:29	09/04/25 09:56	HI0000331
380-169640-5	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	Drinking Water	09/02/25 11:54	09/04/25 09:56	HI0000331
380-169640-6	FB MOANALUA WELLS	Water	09/02/25 10:13	09/04/25 09:56	HI0000331
380-169640-7	FB HALAWA WELLS UNITS 1 & 2	Water	09/02/25 10:41	09/04/25 09:56	HI0000331
380-169640-8	FB AIEA GULCH WELLS PUMP 1	Water	09/02/25 11:10	09/04/25 09:56	HI0000331
380-169640-9	FB AIEA GULCH WELLS PUMP 2	Water	09/02/25 11:29	09/04/25 09:56	HI0000331
380-169640-10	FB AIEA WELLS PUMPS 1&2 (260)	Water	09/02/25 11:54	09/04/25 09:56	HI0000331

Client Information		Company		City & County of Honolulu		Lab PM		Carrier Tracking No(s)		COC No.	
Sampier: bailey		Company: kirk iwamoto		City: Honolulu		Lopez, Maria		380-27941-2757 2		380-27941-2757 2	
Phone: +1 808 748 5840		E-Mail: maria.lopez@et.eurofinsus.com		State of Origin:		Page: Page 2 of 2		Job #:		Job #:	
Due Date Requested: TAT Requested (days): Compliance Project: A No PO #: C20525101 exp 05/31/2023 WO #: Project #: 38001111 SSOW#: Address: 630 South Beretania Street, Chemistry Lab City: Honolulu State: HI Zip: 96843 Phone: 808-748-5840 (tel) Email: kwamoto@hbws.org Project Name: RED-HILL/HBWS sites Event Desc: RUSH Weekly Red Hill Site:											
Sample Identification Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (W=water, S=solid, Onwaste/soil, BTA=Tube, A=Air) Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) SUBCONTRACT - 625 PAH Physic LL (EAL) + TICs 8015B_GRO_LL (MOD) GRO 8015B_PRO_LL_CS HNL Ranges C10-C24/C24-C36/C8-C18 525.2_PREC (MOD) 525plus PLUS TICs 537.1_OW_PREC - 537.1 Full List 533 - All Analytes											
Moanalua Wells 2-Sep-2025 1013 G Water 3 3 chlorinated											
Halawa Wells Units 1&2 P1 2-Sep-2025 1041 G Water 3 3 chlorinated											
Aiea Gulch Wells Pump 1 2-Sep-2025 1110 G Water 3 3 chlorinated											
Aiea Gulch Wells Pump 2 2-Sep-2025 1129 G Water 3 3 chlorinated											
Aiea Wells Pumps 1&2 (260) P2 2-Sep-2025 1154 G Water 3 3 chlorinated											
FB Moanalua Wells 2-Sep-2025 1013 1 1											
FB Halawa Wells Units 1&2 2-Sep-2025 1041 1 1											
FB Aiea Gulch Wells Pump 1 2-Sep-2025 1110 1 1											
FB Aiea Gulch Wells Pump 2 2-Sep-2025 1129 1 1											
FB Aiea Wells Pumps 1&2 (260) 2-Sep-2025 1154 1 1											
Possible Hazard Identification Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological											
Deliverable Requested I II III IV Other (specify) Return To Client Disposal By Lab Archive For											
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return To Client Disposal By Lab Archive For											
Empty Kit Relinquished by Date/Time: 08/29/2025 Date/Time: 1400 Date/Time: 1400											
Relinquished by Date/Time: 08/29/2025 Date/Time: 1400 Date/Time: 1400											
Custody Seals Intact: Δ Yes Δ No Custody Seal No 60A/4.4 = 4.4											

ORIGIN ID-HIKA (808) 748-5840
BWS CHEMLAB
HONOLULU BOARD OF WATER SUPPLY
630 S. BERETANIA ST
CHEMICAL LABORATORY
HONOLULU HI 96843
UNITED STATES US

SHIP DATE 03SEP25
ACTWGT 32.00 LB
CAD 258050552INET4535

BILL RECIPIENT

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

POMONA CA 91768

(626) 386-1100 REF-

PO:

DEPT:



FedEx
Express



THU - 04 SEP 10:30A
PRIORITY OVERNIGHT

6 of 6

MPS# 8840 8629 2625

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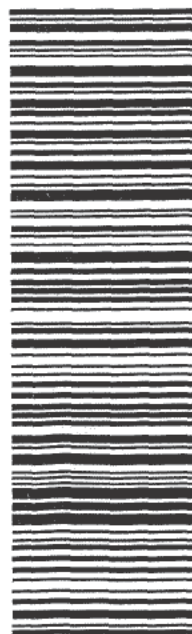
Mstr# 8840 8629 2577

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WM ONTA

CA-US ONT



After printing this label
1 Fold the printed page along the horizontal line
2 Place label in shipping pouch and affix it to your shipment

3-6

Environment Testing
America

Chain of Custody Record

Eurofins Eaton Analytical Pomona

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

[illegible]

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-169640-1

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

Login Number: 169640

List Source: Eurofins Eaton Analytical Pomona

List Number: 1

Creator: Hernandez, Orlando

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