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ANALYTICAL REPORT

PREPARED FOR

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

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JOB DESCRIPTION

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

JOB NUMBER

380-174245-1

Eurofins Eaton Analytical Pomona

Job Notes

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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
Maria Lopez, Project Manager
Maria.Lopez@et.eurofinsus.com
(626)386-1100

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Definitions/Glossary

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

Qualifiers

LCMS

Qualifier	Qualifier Description
*5-	Isotope dilution analyte is outside acceptance limits, low biased.
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: 380-174245-1

Job ID: 380-174245-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-174245-1

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 10/1/2025 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.6°C, 1.7°C and 2.4°C.

PFAS

Method 533: The following QC issues in preparation batch 380-177640 and analytical batch 380-177725 were observed: The samples were spiked with a standard containing both IPS and IDA instead of just IDA. This has resulted to IPS and IDA failures in samples FB: MOANALUA WELLS (331-223-TP202) (380-174245-6), FB: AIEA GULCH WELLS PUMP 1 (331-201-TP071) (380-174245-8), FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072) (380-174245-9) and FB: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) (380-174245-10) and associated extraction QC. Insufficient volume for re-extraction / re-analysis. Results not acceptable per method. PFAS 533 for the field blanks were canceled as native sample did not contain any PFAS hits. Analysis of the field blank is required only if a field sample contains a method analyte or analytes at, or above, the MRL. Sample results showed ND thus valid for reporting.

Method 533: The following QC issues in preparation batch 380-177640 and analytical batch 380-177725 were observed: The samples were spiked with a standard containing both IPS and IDA instead of just IDA. This has resulted to IPS and IDA failures in samples FB: HALAWA WELLS UNITS 1 & 2 (331-206-TP065), due to this QC failure 533 data has been excluded for HALAWA WELLS UNITS 1 & 2 (331-206-TP065) (380-174245-2) and FB: for HALAWA WELLS UNITS 1 & 2 (331-206-TP065) (380-174245-7, The sample collected for HALAWA WELLS UNITS 1 & 2 for PFAS 533 was recollected on 10/20/25 under job 380-178593 analysis for PFAS 533 is currently in progress. (XWB4)

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

Eurofins Eaton Analytical Pomona

Detection Summary

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174245-1

No Detections.

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

Lab Sample ID: 380-174245-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	2.3		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.5		2.0	ng/L	1		537.1	Total/NA

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

Lab Sample ID: 380-174245-3

No Detections.

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

Lab Sample ID: 380-174245-4

No Detections.

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

Lab Sample ID: 380-174245-5

No Detections.

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

Lab Sample ID: 380-174245-6

No Detections.

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

Lab Sample ID: 380-174245-7

No Detections.

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

Lab Sample ID: 380-174245-8

No Detections.

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

Lab Sample ID: 380-174245-9

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Eaton Analytical Pomona

Detection Summary

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174245-10

PWSID Number: HI0000331

No Detections

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This Detection Summary does not include radiochemical test results.

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174245-1

Date Collected: 09/29/25 09:38

Matrix: Drinking Water

Date Received: 10/01/25 10:00

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		10/06/25 07:46	10/07/25 08:41	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 08:41	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 08:41	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 08:41	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 08:41	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 08:41	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 08:41	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 08:41	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 08:41	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 08:41	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 08:41	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 08:41	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 08:41	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 08:41	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 08:41	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 08:41	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 08:41	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 08:41	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 08:41	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 08:41	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 08:41	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 08:41	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 08:41	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 08:41	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 08:41	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	120		50 - 200	10/06/25 07:46	10/07/25 08:41	1
13C6 PFDA	109		50 - 200	10/06/25 07:46	10/07/25 08:41	1
13C5 PFHxA	112		50 - 200	10/06/25 07:46	10/07/25 08:41	1
13C4 PFHpA	112		50 - 200	10/06/25 07:46	10/07/25 08:41	1
13C8 PFOA	110		50 - 200	10/06/25 07:46	10/07/25 08:41	1
13C9 PFNA	112		50 - 200	10/06/25 07:46	10/07/25 08:41	1
13C7 PFUnA	107		50 - 200	10/06/25 07:46	10/07/25 08:41	1
13C2 PFDoA	108		50 - 200	10/06/25 07:46	10/07/25 08:41	1
13C4 PFBA	110		50 - 200	10/06/25 07:46	10/07/25 08:41	1
13C5 PFPeA	102		50 - 200	10/06/25 07:46	10/07/25 08:41	1
13C3 PFBS	117		50 - 200	10/06/25 07:46	10/07/25 08:41	1
13C3 PFHxS	111		50 - 200	10/06/25 07:46	10/07/25 08:41	1

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Client Sample Results

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174245-1

Date Collected: 09/29/25 09:38

Matrix: Drinking Water

Date Received: 10/01/25 10:00

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	10/06/25 07:46	10/07/25 08:41	1
13C2-4:2-FTS	105		50 - 200	10/06/25 07:46	10/07/25 08:41	1
13C2-6:2-FTS	98		50 - 200	10/06/25 07:46	10/07/25 08:41	1
13C2-8:2-FTS	95		50 - 200	10/06/25 07:46	10/07/25 08:41	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		10/02/25 16:08	10/03/25 16:49	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 16:49	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 16:49	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 16:49	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 16:49	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 16:49	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 16:49	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 16:49	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 16:49	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 16:49	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 16:49	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 16:49	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 16:49	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 16:49	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 16:49	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 16:49	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 16:49	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 16:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	104		70 - 130	10/02/25 16:08	10/03/25 16:49	1
13C2 PFHxA	105		70 - 130	10/02/25 16:08	10/03/25 16:49	1
13C2 PFDA	102		70 - 130	10/02/25 16:08	10/03/25 16:49	1
13C3-GenX	110		70 - 130	10/02/25 16:08	10/03/25 16:49	1

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

Lab Sample ID: 380-174245-2

Date Collected: 09/29/25 10:09

Matrix: Drinking Water

Date Received: 10/01/25 10:00

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		10/02/25 16:08	10/03/25 17:11	1
Perfluorooctanesulfonic acid (PFOS)	2.3		2.0	ng/L		10/02/25 16:08	10/03/25 17:11	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:11	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174245-2

Date Collected: 09/29/25 10:09

Matrix: Drinking Water

Date Received: 10/01/25 10:00

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		10/02/25 16:08	10/03/25 17:11	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:11	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:11	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:11	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:11	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:11	1
Perfluorohexanesulfonic acid (PFHxS)	2.5		2.0	ng/L		10/02/25 16:08	10/03/25 17:11	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:11	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:11	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:11	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:11	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:11	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:11	1
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:11	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:11	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	100		70 - 130			10/02/25 16:08	10/03/25 17:11	1
13C2 PFHxA	102		70 - 130			10/02/25 16:08	10/03/25 17:11	1
13C2 PFDA	97		70 - 130			10/02/25 16:08	10/03/25 17:11	1
13C3-GenX	104		70 - 130			10/02/25 16:08	10/03/25 17:11	1

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

Lab Sample ID: 380-174245-3

Date Collected: 09/29/25 10:39

Matrix: Drinking Water

Date Received: 10/01/25 10:00

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:09	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:09	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:09	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:09	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:09	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:09	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:09	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:09	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:09	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:09	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:09	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174245-3

Date Collected: 09/29/25 10:39

Matrix: Drinking Water

Date Received: 10/01/25 10:00

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
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:09	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:09	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:09	1
Perfluorobutanoic acid (PFBA)	2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:09	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:09	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:09	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:09	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:09	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:09	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:09	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:09	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:09	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:09	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:09	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	109		50 - 200			10/06/25 07:46	10/07/25 09:09	1
13C6 PFDA	107		50 - 200			10/06/25 07:46	10/07/25 09:09	1
13C5 PFHxA	116		50 - 200			10/06/25 07:46	10/07/25 09:09	1
13C4 PFHpA	114		50 - 200			10/06/25 07:46	10/07/25 09:09	1
13C8 PFOA	113		50 - 200			10/06/25 07:46	10/07/25 09:09	1
13C9 PFNA	110		50 - 200			10/06/25 07:46	10/07/25 09:09	1
13C7 PFUnA	104		50 - 200			10/06/25 07:46	10/07/25 09:09	1
13C2 PFDoA	108		50 - 200			10/06/25 07:46	10/07/25 09:09	1
13C4 PFBA	110		50 - 200			10/06/25 07:46	10/07/25 09:09	1
13C5 PFPeA	105		50 - 200			10/06/25 07:46	10/07/25 09:09	1
13C3 PFBS	122		50 - 200			10/06/25 07:46	10/07/25 09:09	1
13C3 PFHxS	115		50 - 200			10/06/25 07:46	10/07/25 09:09	1
13C8 PFOS	113		50 - 200			10/06/25 07:46	10/07/25 09:09	1
13C2-4:2-FTS	113		50 - 200			10/06/25 07:46	10/07/25 09:09	1
13C2-6:2-FTS	103		50 - 200			10/06/25 07:46	10/07/25 09:09	1
13C2-8:2-FTS	100		50 - 200			10/06/25 07:46	10/07/25 09:09	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		10/02/25 16:08	10/03/25 17:21	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:21	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:21	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:21	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174245-3

Date Collected: 09/29/25 10:39
Date Received: 10/01/25 10:00

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-ethylperfluorooctanesulfonamidoacetic acid (NETFOSAA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:21	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:21	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:21	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:21	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:21	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:21	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:21	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:21	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:21	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:21	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:21	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:21	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:21	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	102		70 - 130			10/02/25 16:08	10/03/25 17:21	1
13C2 PFHxA	108		70 - 130			10/02/25 16:08	10/03/25 17:21	1
13C2 PFDA	103		70 - 130			10/02/25 16:08	10/03/25 17:21	1
13C3-GenX	105		70 - 130			10/02/25 16:08	10/03/25 17:21	1

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

Lab Sample ID: 380-174245-4

Date Collected: 09/29/25 10:56
Date Received: 10/01/25 10:00

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		10/06/25 07:46	10/07/25 09:19	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:19	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:19	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:19	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:19	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:19	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:19	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:19	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:19	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:19	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:19	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:19	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:19	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:19	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174245-4

Date Collected: 09/29/25 10:56

Matrix: Drinking Water

Date Received: 10/01/25 10:00

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
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:19	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:19	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:19	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:19	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:19	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:19	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:19	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:19	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:19	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:19	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:19	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	114		50 - 200	10/06/25 07:46	10/07/25 09:19	1
13C6 PFDA	112		50 - 200	10/06/25 07:46	10/07/25 09:19	1
13C5 PFHxA	117		50 - 200	10/06/25 07:46	10/07/25 09:19	1
13C4 PFHpA	115		50 - 200	10/06/25 07:46	10/07/25 09:19	1
13C8 PFOA	113		50 - 200	10/06/25 07:46	10/07/25 09:19	1
13C9 PFNA	112		50 - 200	10/06/25 07:46	10/07/25 09:19	1
13C7 PFUnA	109		50 - 200	10/06/25 07:46	10/07/25 09:19	1
13C2 PFDoA	111		50 - 200	10/06/25 07:46	10/07/25 09:19	1
13C4 PFBA	111		50 - 200	10/06/25 07:46	10/07/25 09:19	1
13C5 PFPeA	106		50 - 200	10/06/25 07:46	10/07/25 09:19	1
13C3 PFBS	114		50 - 200	10/06/25 07:46	10/07/25 09:19	1
13C3 PFHxS	114		50 - 200	10/06/25 07:46	10/07/25 09:19	1
13C8 PFOS	113		50 - 200	10/06/25 07:46	10/07/25 09:19	1
13C2-4:2-FTS	111		50 - 200	10/06/25 07:46	10/07/25 09:19	1
13C2-6:2-FTS	99		50 - 200	10/06/25 07:46	10/07/25 09:19	1
13C2-8:2-FTS	98		50 - 200	10/06/25 07:46	10/07/25 09:19	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		10/02/25 16:08	10/03/25 17:32	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:32	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:32	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:32	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:32	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:32	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:32	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174245-4

Date Collected: 09/29/25 10:56

Matrix: Drinking Water

Date Received: 10/01/25 10:00

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:32	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:32	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:32	1
Perfluorobutanesulfonic acid (PFBS)	2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:32	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:32	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:32	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:32	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:32	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:32	1
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:32	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NETfOSAA	106		70 - 130			10/02/25 16:08	10/03/25 17:32	1
13C2 PFHxA	106		70 - 130			10/02/25 16:08	10/03/25 17:32	1
13C2 PFDA	103		70 - 130			10/02/25 16:08	10/03/25 17:32	1
13C3-GenX	106		70 - 130			10/02/25 16:08	10/03/25 17:32	1

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

Lab Sample ID: 380-174245-5

Date Collected: 09/29/25 11:18

Matrix: Drinking Water

Date Received: 10/01/25 10:00

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		10/06/25 07:46	10/07/25 09:29	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:29	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:29	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:29	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:29	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:29	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:29	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:29	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:29	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:29	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:29	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:29	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:29	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:29	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:29	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:29	1

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Client Sample Results

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174245-5

Date Collected: 09/29/25 11:18

Matrix: Drinking Water

Date Received: 10/01/25 10:00

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		10/06/25 07:46	10/07/25 09:29	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:29	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:29	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:29	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:29	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:29	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:29	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:29	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		10/06/25 07:46	10/07/25 09:29	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	111		50 - 200	10/06/25 07:46	10/07/25 09:29	1
13C6 PFDA	106		50 - 200	10/06/25 07:46	10/07/25 09:29	1
13C5 PFHxA	116		50 - 200	10/06/25 07:46	10/07/25 09:29	1
13C4 PFHpA	111		50 - 200	10/06/25 07:46	10/07/25 09:29	1
13C8 PFOA	110		50 - 200	10/06/25 07:46	10/07/25 09:29	1
13C9 PFNA	111		50 - 200	10/06/25 07:46	10/07/25 09:29	1
13C7 PFUnA	102		50 - 200	10/06/25 07:46	10/07/25 09:29	1
13C2 PFDoA	105		50 - 200	10/06/25 07:46	10/07/25 09:29	1
13C4 PFBA	115		50 - 200	10/06/25 07:46	10/07/25 09:29	1
13C5 PFPeA	108		50 - 200	10/06/25 07:46	10/07/25 09:29	1
13C3 PFBS	121		50 - 200	10/06/25 07:46	10/07/25 09:29	1
13C3 PFHxS	116		50 - 200	10/06/25 07:46	10/07/25 09:29	1
13C8 PFOS	113		50 - 200	10/06/25 07:46	10/07/25 09:29	1
13C2-4:2-FTS	108		50 - 200	10/06/25 07:46	10/07/25 09:29	1
13C2-6:2-FTS	99		50 - 200	10/06/25 07:46	10/07/25 09:29	1
13C2-8:2-FTS	93		50 - 200	10/06/25 07:46	10/07/25 09:29	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		10/02/25 16:08	10/03/25 17:43	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:43	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:43	1
N-methylperfluorooctanesulfonamide acetic acid (NMeFOSAA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:43	1
N-ethylperfluorooctanesulfonamide acetic acid (NEtFOSAA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:43	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:43	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:43	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:43	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:43	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:43	1

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Client Sample Results

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174245-5

Date Collected: 09/29/25 11:18

Matrix: Drinking Water

Date Received: 10/01/25 10:00

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:43	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:43	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:43	1
Perfluorotetradecanoic acid (PFTA)	2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:43	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:43	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:43	1
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:43	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:43	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	103		70 - 130			10/02/25 16:08	10/03/25 17:43	1
13C2 PFHxA	101		70 - 130			10/02/25 16:08	10/03/25 17:43	1
13C2 PFDA	101		70 - 130			10/02/25 16:08	10/03/25 17:43	1
13C3-GenX	106		70 - 130			10/02/25 16:08	10/03/25 17:43	1

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

Lab Sample ID: 380-174245-6

Date Collected: 09/29/25 09:38

Matrix: Water

Date Received: 10/01/25 10:00

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		10/02/25 16:08	10/03/25 17:54	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:54	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:54	1
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:54	1
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:54	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:54	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:54	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:54	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:54	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:54	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:54	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:54	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:54	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:54	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:54	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:54	1
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:54	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 17:54	1

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Client Sample Results

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174245-6

Date Collected: 09/29/25 09:38

Matrix: Water

Date Received: 10/01/25 10:00

PWSID Number: HI0000331

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	112		70 - 130	10/02/25 16:08	10/03/25 17:54	1
13C2 PFHxA	111		70 - 130	10/02/25 16:08	10/03/25 17:54	1
13C2 PFDA	113		70 - 130	10/02/25 16:08	10/03/25 17:54	1
13C3-GenX	113		70 - 130	10/02/25 16:08	10/03/25 17:54	1

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

Lab Sample ID: 380-174245-7

Date Collected: 09/29/25 10:09

Matrix: Water

Date Received: 10/01/25 10:00

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		10/02/25 16:08	10/03/25 18:05	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:05	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:05	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:05	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:05	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:05	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:05	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:05	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:05	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:05	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:05	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:05	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:05	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:05	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:05	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:05	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:05	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	99		70 - 130	10/02/25 16:08	10/03/25 18:05	1
13C2 PFHxA	104		70 - 130	10/02/25 16:08	10/03/25 18:05	1
13C2 PFDA	101		70 - 130	10/02/25 16:08	10/03/25 18:05	1
13C3-GenX	107		70 - 130	10/02/25 16:08	10/03/25 18:05	1

Client Sample Results

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174245-8

Date Collected: 09/29/25 10:39

Matrix: Water

Date Received: 10/01/25 10:00

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		10/02/25 16:08	10/03/25 18:16	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:16	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:16	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:16	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:16	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:16	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:16	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:16	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:16	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:16	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:16	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:16	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:16	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:16	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:16	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:16	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:16	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	99		70 - 130			10/02/25 16:08	10/03/25 18:16	1
13C2 PFHxA	103		70 - 130			10/02/25 16:08	10/03/25 18:16	1
13C2 PFDA	95		70 - 130			10/02/25 16:08	10/03/25 18:16	1
13C3-GenX	100		70 - 130			10/02/25 16:08	10/03/25 18:16	1

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

Lab Sample ID: 380-174245-9

Date Collected: 09/29/25 10:56

Matrix: Water

Date Received: 10/01/25 10:00

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		10/02/25 16:08	10/03/25 18:26	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:26	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:26	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:26	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:26	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:26	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:26	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:26	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:26	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174245-9

Date Collected: 09/29/25 10:56

Matrix: Water

Date Received: 10/01/25 10:00

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:26	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:26	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:26	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:26	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:26	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:26	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:26	1
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:26	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	102		70 - 130	10/02/25 16:08	10/03/25 18:26	1
13C2 PFHxA	98		70 - 130	10/02/25 16:08	10/03/25 18:26	1
13C2 PFDA	95		70 - 130	10/02/25 16:08	10/03/25 18:26	1
13C3-GenX	95		70 - 130	10/02/25 16:08	10/03/25 18:26	1

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

Lab Sample ID: 380-174245-10

Date Collected: 09/29/25 11:18

Matrix: Water

Date Received: 10/01/25 10:00

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		10/02/25 16:08	10/03/25 18:37	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:37	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:37	1
N-methylperfluorooctanesulfonamidoa cetic acid (NMeFOSAA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:37	1
N-ethylperfluorooctanesulfonamidoac etic acid (NEtFOSAA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:37	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:37	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:37	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:37	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:37	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:37	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:37	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:37	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:37	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:37	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:37	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:37	1
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:37	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		10/02/25 16:08	10/03/25 18:37	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174245-10

**Date Collected: 09/29/25 11:18
Date Received: 10/01/25 10:00**

**Matrix: Water
PWSID Number: HI0000331**

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
d5-NEtFOSAA	103		70 - 130	10/02/25 16:08	10/03/25 18:37	1
13C2 PFHxA	101		70 - 130	10/02/25 16:08	10/03/25 18:37	1
13C2 PFDA	97		70 - 130	10/02/25 16:08	10/03/25 18:37	1
13C3-GenX	94		70 - 130	10/02/25 16:08	10/03/25 18:37	1

Action Limit Summary

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174245-1

PWSID Number: HI0000331

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

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

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1

Lab Sample ID: 380-174245-2

(331-206-TP065)

PWSID Number: HI0000331

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

Analyte	Result	Qualifier	Unit	EPAMCL	RL	Method	Prep Type
				Limit			
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	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)	2.5		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: 380-174245-3

(331-201-TP071)

PWSID Number: HI0000331

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

Analyte	Result	Qualifier	Unit	EPAMCL	RL	Method	Prep Type
				Limit			
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
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: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174245-3

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			
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: 380-174245-4

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: 380-174245-5

Compliance Check

The results obtained from the analytical testing of this data set were checked against compliance limits received from the client. Any results at or above the compliance limits have been highlighted for your convenience.

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

Action Limit Summary

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174245-5

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

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

Lab Sample ID: 380-174245-6

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

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

Lab Sample ID: 380-174245-7

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	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

Action Limit Summary

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174245-8

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

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

Lab Sample ID: 380-174245-9

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

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

Lab Sample ID: 380-174245-10

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	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: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		d5NEFOS (70-130)	PFHxA (70-130)	PFDA (70-130)	GenX (70-130)
380-174245-1	MOANALUA WELLS (331-223-T	104	105	102	110
380-174245-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	100	102	97	104
380-174245-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	102	108	103	105
380-174245-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	106	106	103	106
380-174245-5	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	103	101	101	106

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)
380-174242-A-1-B MS	Matrix Spike	87	113	99	115
380-174242-A-1-C MSD	Matrix Spike Duplicate	95	106	100	103
380-174245-6	FB: MOANALUA WELLS (331-223-TP202)	112	111	113	113
380-174245-7	FB: HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	99	104	101	107
380-174245-8	FB: AIEA GULCH WELLS PUMF 1 (331-201-TP071)	99	103	95	100
380-174245-9	FB: AIEA GULCH WELLS PUMF 2 (331-202-TP072)	102	98	95	95
380-174245-10	FB: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	103	101	97	94
LCS 380-177612/22-A	Lab Control Sample	98	99	99	110
MBL 380-177612/20-A	Method Blank	102	114	114	116
MRL 380-177612/21-A	Lab Control Sample	102	105	98	102

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: 380-174245-1
 SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
 P1/P2, Aiea Wells Pumps 1&2

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		HFPODA (50-200)	C6PFDA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	13C7PUA (50-200)	PFDaA (50-200)
380-174245-1	MOANALUA WELLS (331-223-T	120	109	112	112	110	112	107	108
380-174245-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	109	107	116	114	113	110	104	108
380-174245-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	114	112	117	115	113	112	109	111
380-174245-5	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	111	106	116	111	110	111	102	105

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA (50-200)	PFPeA (50-200)	C3PFBS (50-200)	C3PFHS (50-200)	C8PFOS (50-200)	42FTS (50-200)	62FTS (50-200)	82FTS (50-200)
380-174245-1	MOANALUA WELLS (331-223-T	110	102	117	111	111	105	98	95
380 174245 3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	110	105	122	115	113	113	103	100
380-174245-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	111	106	114	114	113	111	99	98
380-174245-5	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	115	108	121	116	113	108	99	93

Surrogate Legend

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

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		HFPODA (50-200)	C6PFDA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	13C7PUA (50-200)	PFDaA (50-200)
380-174633-E-1-A MS	Matrix Spike	33 *5-	30 *5-	35 *5-	35 *5-	34 *5-	31 *5-	37 *5-	53
380-174633-F-1-A MSD	Matrix Spike Duplicate	60	70	64	63	62	64	81	90
LCS 380-177966/22-A	Lab Control Sample	114	110	114	112	111	107	106	107
MBL 380-177966/20-A	Method Blank	111	113	115	116	112	111	109	108
MRL 380-177966/21-A	Lab Control Sample	111	106	115	111	108	110	106	106

Isotope Dilution Summary

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

Job ID: 380-174245-1
 SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
 P1/P2, Aiea Wells Pumps 1&2

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

Matrix: Water

Prep Type: Total/NA

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)
380-174633-E-1-A MS	Matrix Spike	38 *5-	34 *5-	116	112	114	115	105	102
380-174633-F-1-A MSD	Matrix Spike Duplicate	64	60	115	113	111	104	103	97
LCS 380-177966/22-A	Lab Control Sample	115	110	120	115	114	114	109	104
MBL 380-177966/20-A	Method Blank	115	109	120	117	115	121	109	108
MRL 380-177966/21-A	Lab Control Sample	111	105	121	115	112	117	106	104

Surrogate Legend

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

QC Sample Results

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: MBL 380-177966/20-A
Matrix: Water
Analysis Batch: 178159

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 177966

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		10/06/25 07:46	10/07/25 06:27	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		10/06/25 07:46	10/07/25 06:27	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		10/06/25 07:46	10/07/25 06:27	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		10/06/25 07:46	10/07/25 06:27	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		10/06/25 07:46	10/07/25 06:27	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		10/06/25 07:46	10/07/25 06:27	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		10/06/25 07:46	10/07/25 06:27	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		10/06/25 07:46	10/07/25 06:27	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		10/06/25 07:46	10/07/25 06:27	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		10/06/25 07:46	10/07/25 06:27	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		10/06/25 07:46	10/07/25 06:27	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		10/06/25 07:46	10/07/25 06:27	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		10/06/25 07:46	10/07/25 06:27	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		10/06/25 07:46	10/07/25 06:27	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		10/06/25 07:46	10/07/25 06:27	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		10/06/25 07:46	10/07/25 06:27	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		10/06/25 07:46	10/07/25 06:27	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		10/06/25 07:46	10/07/25 06:27	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		10/06/25 07:46	10/07/25 06:27	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		10/06/25 07:46	10/07/25 06:27	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		10/06/25 07:46	10/07/25 06:27	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		10/06/25 07:46	10/07/25 06:27	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		10/06/25 07:46	10/07/25 06:27	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		10/06/25 07:46	10/07/25 06:27	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		10/06/25 07:46	10/07/25 06:27	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	111		50 - 200	10/06/25 07:46	10/07/25 06:27	1
13C6 PFDA	113		50 - 200	10/06/25 07:46	10/07/25 06:27	1
13C5 PFHxA	115		50 - 200	10/06/25 07:46	10/07/25 06:27	1
13C4 PFHpA	116		50 - 200	10/06/25 07:46	10/07/25 06:27	1
13C8 PFOA	112		50 - 200	10/06/25 07:46	10/07/25 06:27	1
13C9 PFNA	111		50 - 200	10/06/25 07:46	10/07/25 06:27	1
13C7 PFUnA	109		50 - 200	10/06/25 07:46	10/07/25 06:27	1
13C2 PFDoA	108		50 - 200	10/06/25 07:46	10/07/25 06:27	1
13C4 PFBA	115		50 - 200	10/06/25 07:46	10/07/25 06:27	1
13C5 PFPeA	109		50 - 200	10/06/25 07:46	10/07/25 06:27	1
13C3 PFBS	120		50 - 200	10/06/25 07:46	10/07/25 06:27	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: MBL 380-177966/20-A
Matrix: Water
Analysis Batch: 178159

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 177966

Isotope Dilution	MBL MBL		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C3 PFHxS	117		50 - 200	10/06/25 07:46	10/07/25 06:27	1
13C8 PFOS	115		50 - 200	10/06/25 07:46	10/07/25 06:27	1
13C2-4:2-FTS	121		50 - 200	10/06/25 07:46	10/07/25 06:27	1
13C2-6:2-FTS	109		50 - 200	10/06/25 07:46	10/07/25 06:27	1
13C2-8:2-FTS	108		50 - 200	10/06/25 07:46	10/07/25 06:27	1

Lab Sample ID: LCS 380-177966/22-A
Matrix: Water
Analysis Batch: 178159

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 177966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec
							Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	60.2	54.7		ng/L		91	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	60.2	53.5		ng/L		89	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.2	56.8		ng/L		94	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.2	60.1		ng/L		100	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.2	55.5		ng/L		92	70 - 130
Perfluorodecanoic acid (PFDA)	60.2	56.9		ng/L		95	70 - 130
Perfluorododecanoic acid (PFDoA)	60.2	58.6		ng/L		97	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.2	56.6		ng/L		94	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.2	57.5		ng/L		95	70 - 130
Perfluorohexanoic acid (PFHxA)	60.2	59.0		ng/L		98	70 - 130
Perfluorononanoic acid (PFNA)	60.2	57.7		ng/L		96	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.2	57.4		ng/L		95	70 - 130
Perfluorooctanoic acid (PFOA)	60.2	55.6		ng/L		92	70 - 130
Perfluoroundecanoic acid (PFUnA)	60.2	58.0		ng/L		96	70 - 130
Perfluorobutanoic acid (PFBA)	60.2	56.4		ng/L		94	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.2	62.4		ng/L		104	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.2	62.7		ng/L		104	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.2	58.2		ng/L		97	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	60.2	60.2		ng/L		100	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	60.2	57.3		ng/L		95	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.2	56.2		ng/L		93	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.2	56.4		ng/L		94	70 - 130
Perfluoropentanoic acid (PFPeA)	60.2	57.9		ng/L		96	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-174245-1
 SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
 P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: LCS 380-177966/22-A
Matrix: Water
Analysis Batch: 178159

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 177966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanesulfonic acid (PFHpS)	60.2	57.7		ng/L		96	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	60.2	58.9		ng/L		98	70 - 130
Isotope Dilution							
		LCS %Recovery	LCS Qualifier	Limits			
13C3 HFPO-DA		114		50 - 200			
13C6 PFDA		110		50 - 200			
13C5 PFHxA		114		50 - 200			
13C4 PFHpA		112		50 - 200			
13C8 PFOA		111		50 - 200			
13C9 PFNA		107		50 - 200			
13C7 PFUnA		106		50 - 200			
13C2 PFDoA		107		50 - 200			
13C4 PFBA		115		50 - 200			
13C5 PFPeA		110		50 - 200			
13C3 PFBS		120		50 - 200			
13C3 PFHxS		115		50 - 200			
13C8 PFOS		114		50 - 200			
13C2-4:2-FTS		114		50 - 200			
13C2-6:2-FTS		109		50 - 200			
13C2-8:2-FTS		104		50 - 200			

Lab Sample ID: MRL 380-177966/21-A
Matrix: Water
Analysis Batch: 178159

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 177966

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.76	J	ng/L		88	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	1.75	J	ng/L		87	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	1.88	J	ng/L		94	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.03	J	ng/L		101	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	1.79	J	ng/L		89	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	1.92	J	ng/L		96	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	1.98	J	ng/L		99	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	1.96	J	ng/L		98	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	1.87	J	ng/L		93	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.04	J	ng/L		102	50 - 150
Perfluorononanoic acid (PFNA)	2.01	1.87	J	ng/L		93	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	1.99	J	ng/L		99	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	1.86	J	ng/L		92	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-174245-1
 SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
 P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: MRL 380-177966/21-A
 Matrix: Water
 Analysis Batch: 178159

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 177966

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	2.01	1.87	J	ng/L		93	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	1.96	J	ng/L		98	50 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	2.10	J	ng/L		105	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	2.28	J	ng/L		114	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	1.95	J	ng/L		97	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	2.13	J	ng/L		106	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.01	1.83	J	ng/L		91	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	1.89	J	ng/L		94	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	1.82	J	ng/L		91	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	2.00	J	ng/L		100	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.01	1.95	J	ng/L		97	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	1.90	J	ng/L		94	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	Limits
13C3 HFPO-DA	111		50 - 200
13C6 PFDA	106		50 - 200
13C5 PFHxA	115		50 - 200
13C4 PFHpA	111		50 - 200
13C8 PFOA	108		50 - 200
13C9 PFNA	110		50 - 200
13C7 PFUnA	106		50 - 200
13C2 PFDoA	106		50 - 200
13C4 PFBA	111		50 - 200
13C5 PFPeA	105		50 - 200
13C3 PFBS	121		50 - 200
13C3 PFHxS	115		50 - 200
13C8 PFOS	112		50 - 200
13C2-4:2-FTS	117		50 - 200
13C2-6:2-FTS	106		50 - 200
13C2-8:2-FTS	104		50 - 200

Lab Sample ID: 380-174633-E-1-A MS
 Matrix: Water
 Analysis Batch: 178159

Client Sample ID: Matrix Spike
 Prep Type: Total/NA
 Prep Batch: 177966

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	53.8		ng/L		89	70 - 130

QC Sample Results

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174633-E-1-A MS
Matrix: Water
Analysis Batch: 178159

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 177966

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.5	52.4		ng/L		87	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.5	51.0	*5-	ng/L		84	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.5	57.9	*5-	ng/L		96	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.5	58.4		ng/L		97	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.5	56.3	*5-	ng/L		93	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.5	57.8		ng/L		96	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.5	58.3	*5-	ng/L		96	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.5	57.9		ng/L		96	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		60.5	58.2	*5-	ng/L		96	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.5	57.8	*5-	ng/L		96	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.5	56.9		ng/L		94	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.5	55.3	*5-	ng/L		91	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.5	58.8	*5-	ng/L		97	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.5	55.9	*5-	ng/L		92	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.5	62.1		ng/L		103	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.5	61.3		ng/L		101	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.5	58.9		ng/L		97	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.5	52.9	*5-	ng/L		87	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.5	58.2		ng/L		96	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.5	51.8	*5-	ng/L		86	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.5	51.8	*5-	ng/L		86	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		60.5	57.4	*5-	ng/L		95	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.5	57.4		ng/L		95	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.5	58.5		ng/L		97	70 - 130

Isotope Dilution	MS	MS	Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	33	*5-	50 - 200
13C6 PFDA	30	*5-	50 - 200
13C5 PFHxA	35	*5-	50 - 200
13C4 PFHpA	35	*5-	50 - 200
13C8 PFOA	34	*5-	50 - 200
13C9 PFNA	31	*5-	50 - 200
13C7 PFUnA	37	*5-	50 - 200
13C2 PFDoA	53		50 - 200

QC Sample Results

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174633-E-1-A MS
Matrix: Water
Analysis Batch: 178159

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 177966

Isotope Dilution	MS MS		Limits
	%Recovery	Qualifier	
13C4 PFBA	38	*5-	50 - 200
13C5 PFPeA	34	*5-	50 - 200
13C3 PFBS	116		50 - 200
13C3 PFHxS	112		50 - 200
13C8 PFOS	114		50 - 200
13C2-4:2-FTS	115		50 - 200
13C2-6:2-FTS	105		50 - 200
13C2-8:2-FTS	102		50 - 200

Lab Sample ID: 380-174633-F-1-A MSD
Matrix: Water
Analysis Batch: 178159

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 177966

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
				Result	Qualifier						
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.5	54.8		ng/L		91	70 - 130	2	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.5	54.7		ng/L		90	70 - 130	4	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.5	53.5		ng/L		88	70 - 130	5	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.5	60.6		ng/L		100	70 - 130	5	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.5	60.5		ng/L		100	70 - 130	3	30
Perfluorodecanoic acid (PFDA)	<2.0		60.5	58.9		ng/L		97	70 - 130	4	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.5	59.3		ng/L		98	70 - 130	3	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.5	58.9		ng/L		97	70 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.5	57.0		ng/L		94	70 - 130	1	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.5	57.5		ng/L		95	70 - 130	1	30
Perfluorononanoic acid (PFNA)	<2.0		60.5	58.6		ng/L		97	70 - 130	1	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.5	58.1		ng/L		96	70 - 130	2	30
Perfluorooctanoic acid (PFOA)	<2.0		60.5	58.4		ng/L		97	70 - 130	6	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.5	58.4		ng/L		97	70 - 130	1	30
Perfluorobutanoic acid (PFBA)	<2.0		60.5	58.7		ng/L		97	70 - 130	5	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.5	63.7		ng/L		105	70 - 130	3	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.5	64.7		ng/L		107	70 - 130	5	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.5	58.6		ng/L		97	70 - 130	0	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.5	57.3		ng/L		95	70 - 130	8	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.5	57.7		ng/L		95	70 - 130	1	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.5	53.2		ng/L		88	70 - 130	3	30

QC Sample Results

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174633-F-1-A MSD
Matrix: Water
Analysis Batch: 178159

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 177966

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.5	53.0		ng/L		88	70 - 130	2	30
Perfluoropentanoic acid (PFPeA)	<2.0		60.5	62.6		ng/L		104	70 - 130	9	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.5	58.2		ng/L		96	70 - 130	1	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.5	59.1		ng/L		98	70 - 130	1	30
		MSD	MSD								
Isotope Dilution		%Recovery	Qualifier	Limits							
13C3 HFPO-DA		60		50 - 200							
13C6 PFDA		70		50 - 200							
13C5 PFHxA		64		50 - 200							
13C4 PFHpA		63		50 - 200							
13C8 PFOA		62		50 - 200							
13C9 PFNA		64		50 - 200							
13C7 PFUnA		81		50 - 200							
13C2 PFDoA		90		50 - 200							
13C4 PFBA		64		50 - 200							
13C5 PFPeA		60		50 - 200							
13C3 PFBS		115		50 - 200							
13C3 PFHxS		113		50 - 200							
13C8 PFOS		111		50 - 200							
13C2-4:2-FTS		104		50 - 200							
13C2-6:2-FTS		103		50 - 200							
13C2-8:2-FTS		97		50 - 200							

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

Lab Sample ID: MBL 380-177612/20-A
Matrix: Water
Analysis Batch: 177803

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 177612

Analyte	MBL	MBL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		10/02/25 16:08	10/03/25 15:44	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		10/02/25 16:08	10/03/25 15:44	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		10/02/25 16:08	10/03/25 15:44	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		10/02/25 16:08	10/03/25 15:44	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		10/02/25 16:08	10/03/25 15:44	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		10/02/25 16:08	10/03/25 15:44	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		10/02/25 16:08	10/03/25 15:44	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		10/02/25 16:08	10/03/25 15:44	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		10/02/25 16:08	10/03/25 15:44	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		10/02/25 16:08	10/03/25 15:44	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		10/02/25 16:08	10/03/25 15:44	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		10/02/25 16:08	10/03/25 15:44	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		10/02/25 16:08	10/03/25 15:44	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		10/02/25 16:08	10/03/25 15:44	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: MBL 380-177612/20-A
Matrix: Water
Analysis Batch: 177803

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 177612

Analyte	MBL	MBL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Perfluorotridecanoic acid (PFTTrDA)	<0.36		2.0	ng/L		10/02/25 16:08	10/03/25 15:44	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		10/02/25 16:08	10/03/25 15:44	1
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		10/02/25 16:08	10/03/25 15:44	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		10/02/25 16:08	10/03/25 15:44	1
Surrogate	%Recovery	MBL Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	102		70 - 130			10/02/25 16:08	10/03/25 15:44	1
13C2 PFHxA	114		70 - 130			10/02/25 16:08	10/03/25 15:44	1
13C2 PFDA	114		70 - 130			10/02/25 16:08	10/03/25 15:44	1
13C3-GenX	116		70 - 130			10/02/25 16:08	10/03/25 15:44	1

Lab Sample ID: LCS 380-177612/22-A
Matrix: Water
Analysis Batch: 177803

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 177612

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	25.1	25.3		ng/L		101	70 - 130
Perfluorooctanesulfonic acid (PFOS)	25.1	24.8		ng/L		99	70 - 130
Perfluoroundecanoic acid (PFUnA)	25.1	24.9		ng/L		99	70 - 130
N-methylperfluorooctanesulfona midoacetic acid (NMeFOSAA)	25.1	24.5		ng/L		98	70 - 130
N-ethylperfluorooctanesulfonami doacetic acid (NEtFOSAA)	25.1	23.5		ng/L		94	70 - 130
Perfluorohexanoic acid (PFHxA)	25.1	24.6		ng/L		98	70 - 130
Perfluorododecanoic acid (PFDoA)	25.1	23.7		ng/L		95	70 - 130
Perfluorooctanoic acid (PFOA)	25.1	25.0		ng/L		100	70 - 130
Perfluorodecanoic acid (PFDA)	25.1	24.5		ng/L		98	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	25.1	24.6		ng/L		98	70 - 130
Perfluorobutanesulfonic acid (PFBS)	25.1	22.1		ng/L		88	70 - 130
Perfluoroheptanoic acid (PFHpA)	25.1	25.0		ng/L		100	70 - 130
Perfluorononanoic acid (PFNA)	25.1	24.9		ng/L		99	70 - 130
Perfluorotetradecanoic acid (PFTA)	25.1	25.9		ng/L		104	70 - 130
Perfluorotridecanoic acid (PFTTrDA)	25.1	25.6		ng/L		102	70 - 130
9-Chlorohexadecafluoro-3-oxan onane-1-sulfonic acid(9Cl-PF3ONS)	25.1	25.4		ng/L		101	70 - 130
11-Chloroeicosafuoro-3-oxaund ecane-1-sulfonic acid (11Cl-PF3OUdS)	25.1	24.7		ng/L		99	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	25.1	25.0		ng/L		100	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-174245-1
 SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
 P1/P2, Aiea Wells Pumps 1&2

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

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
d5-NEtFOSAA	98		70 - 130
13C2 PFHxA	99		70 - 130
13C2 PFDA	99		70 - 130
13C3-GenX	110		70 - 130

Lab Sample ID: MRL 380-177612/21-A
Matrix: Water
Analysis Batch: 177803

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 177612

Analyte	Spike Added	MRL MRL		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.09	J	ng/L		104	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.14	J	ng/L		106	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.08	J	ng/L		103	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.01	2.20	J	ng/L		109	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.01	2.08	J	ng/L		103	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.37	J	ng/L		118	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.04	J	ng/L		102	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.09	J	ng/L		104	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.08	J	ng/L		103	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.29	J	ng/L		114	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.27	J	ng/L		113	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.14	J	ng/L		106	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.08	J	ng/L		104	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.01	2.06	J	ng/L		102	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.01	2.20	J	ng/L		109	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	2.01	2.16	J	ng/L		107	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	2.20	J	ng/L		109	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	2.01	J	ng/L		100	50 - 150

Surrogate	MRL MRL		Limits
	%Recovery	Qualifier	
d5-NEtFOSAA	102		70 - 130
13C2 PFHxA	105		70 - 130
13C2 PFDA	98		70 - 130
13C3-GenX	102		70 - 130

QC Sample Results

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174242-A-1-C MSD
Matrix: Water
Analysis Batch: 177803

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 177612

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		50.2	45.6		ng/L		91	70 - 130	0	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		50.2	46.9		ng/L		93	70 - 130	10	30
Perfluorohexanoic acid (PFHxA)	<2.0		50.2	51.4		ng/L		101	70 - 130	3	30
Perfluorododecanoic acid (PFDoA)	<2.0		50.2	47.7		ng/L		95	70 - 130	3	30
Perfluorooctanoic acid (PFOA)	<2.0		50.2	51.2		ng/L		101	70 - 130	0	30
Perfluorodecanoic acid (PFDA)	<2.0		50.2	49.9		ng/L		99	70 - 130	7	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		50.2	54.3		ng/L		107	70 - 130	7	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		50.2	52.9		ng/L		104	70 - 130	9	30
Perfluoroheptanoic acid (PFHpA)	<2.0		50.2	49.6		ng/L		99	70 - 130	4	30
Perfluorononanoic acid (PFNA)	<2.0		50.2	47.2		ng/L		94	70 - 130	0	30
Perfluorotetradecanoic acid (PFTA)	<2.0		50.2	48.7		ng/L		97	70 - 130	2	30
Perfluorotridecanoic acid (PFTrDA)	<2.0		50.2	51.1		ng/L		102	70 - 130	3	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		50.2	50.4		ng/L		100	70 - 130	4	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid(11Cl-PF3OUdS)	<2.0		50.2	51.0		ng/L		102	70 - 130	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		50.2	46.0		ng/L		92	70 - 130	9	30
Surrogate		MSD	MSD								
		%Recovery	Qualifier	Limits							
d5-NEtFOSAA		95		70 - 130							
13C2 PFHxA		106		70 - 130							
13C2 PFDA		100		70 - 130							
13C3-GenX		103		70 - 130							

QC Association Summary

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

LCMS

Prep Batch: 177612

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-174245-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	537.1 DW	
380-174245-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Drinking Water	537.1 DW	
380-174245-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	537.1 DW	
380-174245-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	537.1 DW	
380-174245-5	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP073)	Total/NA	Drinking Water	537.1 DW	
380-174245-6	FB: MOANALUA WELLS (331-223-TP202)	Total/NA	Water	537.1 DW	
380-174245-7	FB: HALAWA WELLS UNITS 1 & 2 (331-206-TPC01)	Total/NA	Water	537.1 DW	
380-174245-8	FB: AIEA GULCH WELLS PUMP 1 (331-201-TPC01)	Total/NA	Water	537.1 DW	
380-174245-9	FB: AIEA GULCH WELLS PUMP 2 (331-202-TPC01)	Total/NA	Water	537.1 DW	
380-174245-10	FB: AIEA WELLS PUMPS 1&2 (260) (331-203-TF01)	Total/NA	Water	537.1 DW	
MBL 380-177612/20-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-177612/22-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-177612/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-174242-A-1-B MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-174242-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Analysis Batch: 177803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-174245-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	537.1	177612
380-174245-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Drinking Water	537.1	177612
380-174245-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	537.1	177612
380-174245-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	537.1	177612
380-174245-5	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP073)	Total/NA	Drinking Water	537.1	177612
380-174245-6	FB: MOANALUA WELLS (331-223-TP202)	Total/NA	Water	537.1	177612
380-174245-7	FB: HALAWA WELLS UNITS 1 & 2 (331-206-TPC01)	Total/NA	Water	537.1	177612
380-174245-8	FB: AIEA GULCH WELLS PUMP 1 (331-201-TPC01)	Total/NA	Water	537.1	177612
380-174245-9	FB: AIEA GULCH WELLS PUMP 2 (331-202-TPC01)	Total/NA	Water	537.1	177612
380-174245-10	FB: AIEA WELLS PUMPS 1&2 (260) (331-203-TF01)	Total/NA	Water	537.1	177612
MBL 380-177612/20-A	Method Blank	Total/NA	Water	537.1	177612
LCS 380-177612/22-A	Lab Control Sample	Total/NA	Water	537.1	177612
MRL 380-177612/21-A	Lab Control Sample	Total/NA	Water	537.1	177612
380-174242-A-1-B MS	Matrix Spike	Total/NA	Water	537.1	177612
380-174242-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	537.1	177612

Prep Batch: 177966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-174245-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	533	
380-174245-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	533	
380-174245-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	533	
380-174245-5	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP073)	Total/NA	Drinking Water	533	
MBL 380-177966/20-A	Method Blank	Total/NA	Water	533	
LCS 380-177966/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-177966/21-A	Lab Control Sample	Total/NA	Water	533	
380-174633-E-1-A MS	Matrix Spike	Total/NA	Water	533	
380-174633-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 178159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-174245-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	533	177966
380-174245-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	533	177966

QC Association Summary

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

LCMS (Continued)

Analysis Batch: 178159 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-174245-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	533	177966
380-174245-5	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP	Total/NA	Drinking Water	533	177966
MBL 380-177966/20-A	Method Blank	Total/NA	Water	533	177966
LCS 380-177966/22-A	Lab Control Sample	Total/NA	Water	533	177966
MRL 380-177966/21-A	Lab Control Sample	Total/NA	Water	533	177966
380-174633-E-1-A MS	Matrix Spike	Total/NA	Water	533	177966
380-174633-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	177966

Lab Chronicle

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

Job ID: 380-174245-1
 SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
 P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174245-1

Date Collected: 09/29/25 09:38

Matrix: Drinking Water

Date Received: 10/01/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			177966	XTD8	EA POM	10/06/25 07:46
Total/NA	Analysis	533		1	178159	SZ9R	EA POM	10/07/25 08:41
Total/NA	Prep	537.1 DW			177612	N8NE	EA POM	10/02/25 16:08
Total/NA	Analysis	537.1		1	177803	Y5FM	EA POM	10/03/25 16:49

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

Lab Sample ID: 380-174245-2

Date Collected: 09/29/25 10:09

Matrix: Drinking Water

Date Received: 10/01/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	537.1 DW			177612	N8NE	EA POM	10/02/25 16:08
Total/NA	Analysis	537.1		1	177803	Y5FM	EA POM	10/03/25 17:11

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

Lab Sample ID: 380-174245-3

Date Collected: 09/29/25 10:39

Matrix: Drinking Water

Date Received: 10/01/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			177966	XTD8	EA POM	10/06/25 07:46
Total/NA	Analysis	533		1	178159	SZ9R	EA POM	10/07/25 09:09
Total/NA	Prep	537.1 DW			177612	N8NE	EA POM	10/02/25 16:08
Total/NA	Analysis	537.1		1	177803	Y5FM	EA POM	10/03/25 17:21

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

Lab Sample ID: 380-174245-4

Date Collected: 09/29/25 10:56

Matrix: Drinking Water

Date Received: 10/01/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			177966	XTD8	EA POM	10/06/25 07:46
Total/NA	Analysis	533		1	178159	SZ9R	EA POM	10/07/25 09:19
Total/NA	Prep	537.1 DW			177612	N8NE	EA POM	10/02/25 16:08
Total/NA	Analysis	537.1		1	177803	Y5FM	EA POM	10/03/25 17:32

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

Lab Sample ID: 380-174245-5

Date Collected: 09/29/25 11:18

Matrix: Drinking Water

Date Received: 10/01/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			177966	XTD8	EA POM	10/06/25 07:46
Total/NA	Analysis	533		1	178159	SZ9R	EA POM	10/07/25 09:29

Lab Chronicle

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174245-5

Date Collected: 09/29/25 11:18
Date Received: 10/01/25 10:00

Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	537.1 DW			177612	N8NE	EA POM	10/02/25 16:08
Total/NA	Analysis	537.1		1	177803	Y5FM	EA POM	10/03/25 17:43

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

Lab Sample ID: 380-174245-6

Date Collected: 09/29/25 09:38
Date Received: 10/01/25 10:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	537.1 DW			177612	N8NE	EA POM	10/02/25 16:08
Total/NA	Analysis	537.1		1	177803	Y5FM	EA POM	10/03/25 17:54

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

Lab Sample ID: 380-174245-7

Date Collected: 09/29/25 10:09
Date Received: 10/01/25 10:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	537.1 DW			177612	N8NE	EA POM	10/02/25 16:08
Total/NA	Analysis	537.1		1	177803	Y5FM	EA POM	10/03/25 18:05

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

Lab Sample ID: 380-174245-8

Date Collected: 09/29/25 10:39
Date Received: 10/01/25 10:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	537.1 DW			177612	N8NE	EA POM	10/02/25 16:08
Total/NA	Analysis	537.1		1	177803	Y5FM	EA POM	10/03/25 18:16

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

Lab Sample ID: 380-174245-9

Date Collected: 09/29/25 10:56
Date Received: 10/01/25 10:00

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	537.1 DW			177612	N8NE	EA POM	10/02/25 16:08
Total/NA	Analysis	537.1		1	177803	Y5FM	EA POM	10/03/25 18:26

Lab Chronicle

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-174245-10

Date Collected: 09/29/25 11:18

Matrix: Water

Date Received: 10/01/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	537.1 DW			177612	N8NE	EA POM	10/02/25 16:08
Total/NA	Analysis	537.1		1	177803	Y5FM	EA POM	10/03/25 18:37

Laboratory References:

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

- 1
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- 17

Accreditation/Certification Summary

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

Laboratory: Eurofins Eaton Analytical Pomona

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

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

- 1
- 2
- 3
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- 16
- 17

Method Summary

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

Job ID: 380-174245-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pumps 1&2

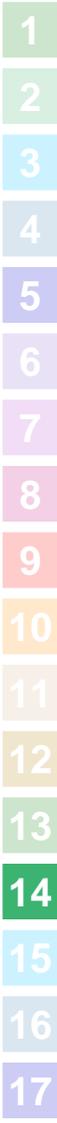
Method	Method Description	Protocol	Laboratory
533	Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water	EPA	EA POM
537.1	Perfluorinated Alkyl Acids (LC/MS)	EPA	EA POM
533	Extraction of Perfluorinated and Polyfluorinated Alkyl Acids	EPA	EA POM
537.1 DW	Extraction of Perfluorinated Alkyl Acids	EPA	EA POM

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

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



Sample Summary

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

Job ID: 380-174245-1
 SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch
 Wells P1/P2, Aiea Wells Pumps 1&2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
380-174245-1	MOANALUA WELLS (331-223-TP202)	Drinking Water	09/29/25 09:38	10/01/25 10:00	HI0000331
380-174245-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	Drinking Water	09/29/25 10:09	10/01/25 10:00	HI0000331
380-174245-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Drinking Water	09/29/25 10:39	10/01/25 10:00	HI0000331
380-174245-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Drinking Water	09/29/25 10:56	10/01/25 10:00	HI0000331
380-174245-5	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	Drinking Water	09/29/25 11:18	10/01/25 10:00	HI0000331
380-174245-6	FB: MOANALUA WELLS (331-223-TP202)	Water	09/29/25 09:38	10/01/25 10:00	HI0000331
380-174245-7	FB: HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Water	09/29/25 10:09	10/01/25 10:00	HI0000331
380-174245-8	FB: AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Water	09/29/25 10:39	10/01/25 10:00	HI0000331
380-174245-9	FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Water	09/29/25 10:56	10/01/25 10:00	HI0000331
380-174245-10	FB: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	Water	09/29/25 11:18	10/01/25 10:00	HI0000331



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



Chain of Custody Record

Client Information		Sampler: bailey		Lab PM: Lopez, Maria		Carrier Tracking No(s): 380-27941-2757.2	
Client Contact: kirk kwamoto		Phone: +1 808 748 5840		E-Mail: Maria.Lopez@et-eurofins.com		State of Origin:	
Company: City & County of Honolulu		PWSID:		Analysis Requested		COC No: 380-27941-2757.2	
Address: 630 South Beretania Street, Chemistry Lab		Due Date Requested:		533 - All Analytes		Page: Page 2 of 2	
City: Honolulu		TAT Requested (days):		537 - DW_PREG - 537 Full List		Job #:	
State, Zip: HI, 96843		Compliance Project: Δ No		525.2_PREG - (MOD) 525plus PLUS TICs		Preservation Codes:	
Phone: 808-748-5840 (tel)		PO #: C20525101 exp 05312023		8015B_DRO_LL_CS - HNL Ranges C10-C24/C24-C38/C8		A - HCL B - NaOH O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)	
Email: kwamoto@hbws.org		WO #: 38001111		8015B_GRO_LL - (MOD) GRO		C - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Project Name: RED-HILL/HBWS sites Event Desc: RUSH Weekly Red Hill		Project #: 38001111		SUBCONTRACT - 626 PAH Phys LL (EAL) + TICs		Special Instructions/Note:	
Site: S50WF		SSOWF:		Field Filtered Sample (Yes or No)		Total Number of Containers	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)	
Moanalua Wells		29-Sep-2025		0938		G Water	
Halawa Wells Units 1&2 P1		29-Sep-2025		1009		G Water	
Aiea Gulch Wells Pump 1		29-Sep-2025		1039		G Water	
Aiea Gulch Wells Pump 2		29-Sep-2025		1056		G Water	
Aiea Wells Pumps 1&2 (260) P2		29-Sep-2025		1118		G Water	
FB Moanalua Wells		29-Sep-2025		0928		G Water	
FB Halawa Wells Units 1&2		29-Sep-2025		1009		G Water	
FB Aiea Gulch Wells Pump 1		29-Sep-2025		1039		G Water	
FB Aiea Gulch Wells Pump 2		29-Sep-2025		1056		G Water	
FB Aiea Wells Pumps 1&2 (260)		29-Sep-2025		1118		G Water	



380-174245 COC

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

Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: _____ Date: _____

Relinquished by: _____ Date/Time: 30/09/2025 Company: HBWS

Relinquished by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: Δ Yes Δ No Custody Seal No. _____

Special Instructions/QC Requirements: _____

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

Method of Shipment: _____

Received by: _____ Date/Time: 30/11/25 1000 Company: EEAP

Received by: _____ Date/Time: _____ Company: _____

Received by: _____ Date/Time: _____ Company: _____

Cooler Temperature(s) °C and Other Remarks: 10.7-0.2 = 1.7 / 10.8-0.2 = 0.6 / 10.2.6-0.2 = 2.4 9.1 (7.9A)



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-174245-1

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

Login Number: 174245

List Source: Eurofins Eaton Analytical Pomona

List Number: 1

Creator: Segura, Ryan

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

