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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Erwin Kawata
City & County of Honolulu
630 South Beretania Street
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Generated 11/4/2024 9:54:32 AM

JOB DESCRIPTION

RED-HILL
Weekly PFAS
RUSH Weekly Red Hill

JOB NUMBER

380-120002-1

Eurofins Eaton Analytical Pomona

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Eaton Analytical, LLC Project Manager.

Compliance Statement

1. Laboratory is accredited in accordance with TNI 2016 Standards and ISO/IEC 17025:2017.
2. Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis
3. Test results relate only to the sample(s) tested.
4. This report shall not be reproduced except in full, without the written approval of the laboratory.
5. Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below. (DW, Water matrices)

Authorization



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Authorized for release by
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Definitions/Glossary

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

Job ID: 380-120002-1
SDG: Weekly PFAS

Qualifiers

LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

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

Job ID: 380-120002-1

Job ID: 380-120002-1

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Job Narrative 380-120002-1

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

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

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

Receipt

The samples were received on 10/30/2024 9:35 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.1°C.

PFAS

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

Detection Summary

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-120002-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	2.4		2.0	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	2.0		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.2		2.0	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	2.2		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.3		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanoic acid (PFHxA)	2.0		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.7		2.0	ng/L	1		537.1	Total/NA

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

Lab Sample ID: 380-120002-2

No Detections.

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

Lab Sample ID: 380-120002-3

No Detections.

Client Sample ID: KA'AMILO WELLS

Lab Sample ID: 380-120002-4

No Detections.

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

Lab Sample ID: 380-120002-5

No Detections.

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

Lab Sample ID: 380-120002-6

No Detections.

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

Lab Sample ID: 380-120002-7

No Detections.

Client Sample ID: FB: KA'AMILO WELLS

Lab Sample ID: 380-120002-8

No Detections.

This Detection Summary does not include radiochemical test results.

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Client Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-120002-1

Date Collected: 10/28/24 10:02

Matrix: Drinking Water

Date Received: 10/30/24 09:35

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		10/31/24 06:15	11/01/24 10:04	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		10/31/24 06:15	11/01/24 10:04	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		10/31/24 06:15	11/01/24 10:04	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		10/31/24 06:15	11/01/24 10:04	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		10/31/24 06:15	11/01/24 10:04	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		10/31/24 06:15	11/01/24 10:04	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		10/31/24 06:15	11/01/24 10:04	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		10/31/24 06:15	11/01/24 10:04	1
Perfluorohexanesulfonic acid (PFHxS)	2.4		2.0	ng/L		10/31/24 06:15	11/01/24 10:04	1
Perfluorohexanoic acid (PFHxA)	2.0		2.0	ng/L		10/31/24 06:15	11/01/24 10:04	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		10/31/24 06:15	11/01/24 10:04	1
Perfluorooctanesulfonic acid (PFOS)	2.2		2.0	ng/L		10/31/24 06:15	11/01/24 10:04	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		10/31/24 06:15	11/01/24 10:04	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		10/31/24 06:15	11/01/24 10:04	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		10/31/24 06:15	11/01/24 10:04	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		10/31/24 06:15	11/01/24 10:04	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		10/31/24 06:15	11/01/24 10:04	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		10/31/24 06:15	11/01/24 10:04	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		10/31/24 06:15	11/01/24 10:04	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		10/31/24 06:15	11/01/24 10:04	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		10/31/24 06:15	11/01/24 10:04	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		10/31/24 06:15	11/01/24 10:04	1
Perfluoropentanoic acid (PFPeA)	2.2		2.0	ng/L		10/31/24 06:15	11/01/24 10:04	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		10/31/24 06:15	11/01/24 10:04	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		10/31/24 06:15	11/01/24 10:04	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	85		50 - 200			10/31/24 06:15	11/01/24 10:04	1
13C6 PFDA	78		50 - 200			10/31/24 06:15	11/01/24 10:04	1
13C5 PFHxA	92		50 - 200			10/31/24 06:15	11/01/24 10:04	1
13C4 PFHpA	87		50 - 200			10/31/24 06:15	11/01/24 10:04	1
13C8 PFOA	85		50 - 200			10/31/24 06:15	11/01/24 10:04	1
13C9 PFNA	81		50 - 200			10/31/24 06:15	11/01/24 10:04	1
13C7 PFUnA	80		50 - 200			10/31/24 06:15	11/01/24 10:04	1
13C2 PFDoA	83		50 - 200			10/31/24 06:15	11/01/24 10:04	1
13C4 PFBA	96		50 - 200			10/31/24 06:15	11/01/24 10:04	1
13C5 PFPeA	100		50 - 200			10/31/24 06:15	11/01/24 10:04	1
13C3 PFBS	115		50 - 200			10/31/24 06:15	11/01/24 10:04	1

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Client Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-120002-1

Date Collected: 10/28/24 10:02
Date Received: 10/30/24 09:35

Matrix: Drinking Water
PWSID Number: HI0000331

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFHxS	112		50 - 200	10/31/24 06:15	11/01/24 10:04	1
13C8 PFOS	115		50 - 200	10/31/24 06:15	11/01/24 10:04	1
13C2-4:2-FTS	143		50 - 200	10/31/24 06:15	11/01/24 10:04	1
13C2-6:2-FTS	153		50 - 200	10/31/24 06:15	11/01/24 10:04	1
13C2-8:2-FTS	126		50 - 200	10/31/24 06:15	11/01/24 10:04	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:18	1
Perfluorooctanesulfonic acid (PFOS)	2.3		2.0	ng/L		11/02/24 05:41	11/03/24 04:18	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:18	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:18	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:18	1
Perfluorohexanoic acid (PFHxA)	2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:18	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:18	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:18	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:18	1
Perfluorohexanesulfonic acid (PFHxS)	2.7		2.0	ng/L		11/02/24 05:41	11/03/24 04:18	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:18	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:18	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:18	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:18	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:18	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:18	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:18	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	107		70 - 130	11/02/24 05:41	11/03/24 04:18	1
13C2 PFHxA	109		70 - 130	11/02/24 05:41	11/03/24 04:18	1
13C2 PFDA	110		70 - 130	11/02/24 05:41	11/03/24 04:18	1
13C3-GenX	98		70 - 130	11/02/24 05:41	11/03/24 04:18	1

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

Lab Sample ID: 380-120002-2

Date Collected: 10/28/24 10:31
Date Received: 10/30/24 09:35

Matrix: Drinking Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:15	1

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Client Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-120002-2

Date Collected: 10/28/24 10:31

Matrix: Drinking Water

Date Received: 10/30/24 09:35

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
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:15	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:15	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:15	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:15	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:15	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:15	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:15	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:15	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:15	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:15	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:15	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:15	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:15	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:15	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:15	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:15	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6 2 FTS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:15	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:15	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:15	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:15	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:15	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:15	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:15	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:15	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	64		50 - 200	11/01/24 06:41	11/01/24 23:15	1
13C6 PFDA	58		50 - 200	11/01/24 06:41	11/01/24 23:15	1
13C5 PFHxA	72		50 - 200	11/01/24 06:41	11/01/24 23:15	1
13C4 PFHpA	69		50 - 200	11/01/24 06:41	11/01/24 23:15	1
13C8 PFOA	65		50 - 200	11/01/24 06:41	11/01/24 23:15	1
13C9 PFNA	59		50 - 200	11/01/24 06:41	11/01/24 23:15	1
13C7 PFUnA	64		50 - 200	11/01/24 06:41	11/01/24 23:15	1
13C2 PFDoA	71		50 - 200	11/01/24 06:41	11/01/24 23:15	1
13C4 PFBA	80		50 - 200	11/01/24 06:41	11/01/24 23:15	1
13C5 PFPeA	77		50 - 200	11/01/24 06:41	11/01/24 23:15	1
13C3 PFBS	110		50 - 200	11/01/24 06:41	11/01/24 23:15	1
13C3 PFHxS	110		50 - 200	11/01/24 06:41	11/01/24 23:15	1
13C8 PFOS	110		50 - 200	11/01/24 06:41	11/01/24 23:15	1
13C2-4:2-FTS	120		50 - 200	11/01/24 06:41	11/01/24 23:15	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-120002-2

Date Collected: 10/28/24 10:31

Matrix: Drinking Water

Date Received: 10/30/24 09:35

PWSID Number: HI0000331

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2-6:2-FTS	133		50 - 200	11/01/24 06:41	11/01/24 23:15	1
13C2-8:2-FTS	111		50 - 200	11/01/24 06:41	11/01/24 23:15	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:28	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:28	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:28	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:28	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:28	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:28	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:28	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:28	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:28	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:28	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:28	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:28	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:28	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:28	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:28	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:28	1
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:28	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	98		70 - 130	11/02/24 05:41	11/03/24 04:28	1
13C2 PFHxA	110		70 - 130	11/02/24 05:41	11/03/24 04:28	1
13C2 PFDA	105		70 - 130	11/02/24 05:41	11/03/24 04:28	1
13C3-GenX	93		70 - 130	11/02/24 05:41	11/03/24 04:28	1

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

Lab Sample ID: 380-120002-3

Date Collected: 10/28/24 10:55

Matrix: Drinking Water

Date Received: 10/30/24 09:35

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		11/01/24 06:41	11/01/24 23:25	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:25	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:25	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:25	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-120002-3

Date Collected: 10/28/24 10:55

Matrix: Drinking Water

Date Received: 10/30/24 09:35

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:25	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:25	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:25	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:25	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:25	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:25	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:25	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:25	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:25	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:25	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:25	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:25	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:25	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:25	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:25	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:25	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:25	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:25	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:25	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:25	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:25	1
<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>			<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3 HFPO-DA	76		50 - 200			11/01/24 06:41	11/01/24 23:25	1
13C6 PFDA	64		50 - 200			11/01/24 06:41	11/01/24 23:25	1
13C5 PFHxA	82		50 - 200			11/01/24 06:41	11/01/24 23:25	1
13C4 PFHpA	84		50 - 200			11/01/24 06:41	11/01/24 23:25	1
13C8 PFOA	72		50 - 200			11/01/24 06:41	11/01/24 23:25	1
13C9 PFNA	64		50 - 200			11/01/24 06:41	11/01/24 23:25	1
13C7 PFUnA	68		50 - 200			11/01/24 06:41	11/01/24 23:25	1
13C2 PFDoA	79		50 - 200			11/01/24 06:41	11/01/24 23:25	1
13C4 PFBA	88		50 - 200			11/01/24 06:41	11/01/24 23:25	1
13C5 PFPeA	87		50 - 200			11/01/24 06:41	11/01/24 23:25	1
13C3 PFBS	113		50 - 200			11/01/24 06:41	11/01/24 23:25	1
13C3 PFHxS	115		50 - 200			11/01/24 06:41	11/01/24 23:25	1
13C8 PFOS	110		50 - 200			11/01/24 06:41	11/01/24 23:25	1
13C2-4:2-FTS	118		50 - 200			11/01/24 06:41	11/01/24 23:25	1
13C2-6:2-FTS	118		50 - 200			11/01/24 06:41	11/01/24 23:25	1
13C2-8:2-FTS	114		50 - 200			11/01/24 06:41	11/01/24 23:25	1

Client Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-120002-3

Date Collected: 10/28/24 10:55

Matrix: Drinking Water

Date Received: 10/30/24 09:35

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:39	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:39	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:39	1
N-methylperfluorooctanesulfonamide acetic acid (NMeFOSAA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:39	1
N-ethylperfluorooctanesulfonamide acetic acid (NEtFOSAA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:39	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:39	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:39	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:39	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:39	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:39	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:39	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:39	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:39	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:39	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:39	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:39	1
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:39	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	105		70 - 130			11/02/24 05:41	11/03/24 04:39	1
13C2 PFHxA	106		70 - 130			11/02/24 05:41	11/03/24 04:39	1
13C2 PFDA	111		70 - 130			11/02/24 05:41	11/03/24 04:39	1
13C3-GenX	95		70 - 130			11/02/24 05:41	11/03/24 04:39	1

Client Sample ID: KA'AMILO WELLS

Lab Sample ID: 380-120002-4

Date Collected: 10/28/24 11:18

Matrix: Water

Date Received: 10/30/24 09:35

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		11/01/24 06:41	11/01/24 23:36	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:36	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:36	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:36	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:36	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:36	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:36	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:36	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:36	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:36	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

Client Sample ID: KA'AMILO WELLS

Lab Sample ID: 380-120002-4

Date Collected: 10/28/24 11:18

Matrix: Water

Date Received: 10/30/24 09:35

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:36	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:36	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:36	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:36	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:36	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:36	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:36	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:36	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:36	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:36	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:36	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:36	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:36	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:36	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:36	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	84		50 - 200			11/01/24 06:41	11/01/24 23:36	1
13C6 PFDA	82		50 - 200			11/01/24 06:41	11/01/24 23:36	1
13C5 PFHxA	88		50 - 200			11/01/24 06:41	11/01/24 23:36	1
13C4 PFHpA	85		50 - 200			11/01/24 06:41	11/01/24 23:36	1
13C8 PFOA	82		50 - 200			11/01/24 06:41	11/01/24 23:36	1
13C9 PFNA	76		50 - 200			11/01/24 06:41	11/01/24 23:36	1
13C7 PFUnA	83		50 - 200			11/01/24 06:41	11/01/24 23:36	1
13C2 PFDoA	90		50 - 200			11/01/24 06:41	11/01/24 23:36	1
13C4 PFBA	96		50 - 200			11/01/24 06:41	11/01/24 23:36	1
13C5 PFPeA	94		50 - 200			11/01/24 06:41	11/01/24 23:36	1
13C3 PFBS	113		50 - 200			11/01/24 06:41	11/01/24 23:36	1
13C3 PFHxS	113		50 - 200			11/01/24 06:41	11/01/24 23:36	1
13C8 PFOS	110		50 - 200			11/01/24 06:41	11/01/24 23:36	1
13C2-4:2-FTS	114		50 - 200			11/01/24 06:41	11/01/24 23:36	1
13C2-6:2-FTS	108		50 - 200			11/01/24 06:41	11/01/24 23:36	1
13C2-8:2-FTS	111		50 - 200			11/01/24 06:41	11/01/24 23:36	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:50	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:50	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:50	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:50	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:50	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

Client Sample ID: KA'AMILO WELLS

Lab Sample ID: 380-120002-4

Date Collected: 10/28/24 11:18

Matrix: Water

Date Received: 10/30/24 09:35

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:50	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:50	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:50	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:50	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:50	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:50	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:50	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:50	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:50	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:50	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:50	1
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:50	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 04:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	108		70 - 130			11/02/24 05:41	11/03/24 04:50	1
13C2 PFHxA	105		70 - 130			11/02/24 05:41	11/03/24 04:50	1
13C2 PFDA	110		70 - 130			11/02/24 05:41	11/03/24 04:50	1
13C3-GenX	94		70 - 130			11/02/24 05:41	11/03/24 04:50	1

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

Lab Sample ID: 380-120002-5

Date Collected: 10/28/24 10:02

Matrix: Water

Date Received: 10/30/24 09:35

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:47	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:47	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:47	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:47	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:47	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:47	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:47	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:47	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:47	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:47	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:47	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:47	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:47	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:47	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:47	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:47	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-120002-5

Date Collected: 10/28/24 10:02

Matrix: Water

Date Received: 10/30/24 09:35

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:47	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:47	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:47	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:47	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:47	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:47	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:47	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:47	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:47	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	92		50 - 200			11/01/24 06:41	11/01/24 23:47	1
13C6 PFDA	109		50 - 200			11/01/24 06:41	11/01/24 23:47	1
13C5 PFHxA	109		50 - 200			11/01/24 06:41	11/01/24 23:47	1
13C4 PFHpA	112		50 - 200			11/01/24 06:41	11/01/24 23:47	1
13C8 PFOA	110		50 - 200			11/01/24 06:41	11/01/24 23:47	1
13C9 PFNA	108		50 - 200			11/01/24 06:41	11/01/24 23:47	1
13C7 PFUnA	104		50 - 200			11/01/24 06:41	11/01/24 23:47	1
13C2 PFDoA	111		50 - 200			11/01/24 06:41	11/01/24 23:47	1
13C4 PFBA	113		50 - 200			11/01/24 06:41	11/01/24 23:47	1
13C5 PFPeA	114		50 - 200			11/01/24 06:41	11/01/24 23:47	1
13C3 PFBS	114		50 - 200			11/01/24 06:41	11/01/24 23:47	1
13C3 PFHxS	111		50 - 200			11/01/24 06:41	11/01/24 23:47	1
13C8 PFOS	110		50 - 200			11/01/24 06:41	11/01/24 23:47	1
13C2-4:2-FTS	120		50 - 200			11/01/24 06:41	11/01/24 23:47	1
13C2-6:2-FTS	108		50 - 200			11/01/24 06:41	11/01/24 23:47	1
13C2-8:2-FTS	108		50 - 200			11/01/24 06:41	11/01/24 23:47	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:01	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:01	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:01	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:01	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:01	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:01	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:01	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:01	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:01	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:01	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:01	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-120002-5

Date Collected: 10/28/24 10:02

Matrix: Water

Date Received: 10/30/24 09:35

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:01	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:01	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:01	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:01	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:01	1
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:01	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	110		70 - 130			11/02/24 05:41	11/03/24 05:01	1
13C2 PFHxA	112		70 - 130			11/02/24 05:41	11/03/24 05:01	1
13C2 PFDA	111		70 - 130			11/02/24 05:41	11/03/24 05:01	1
13C3-GenX	101		70 - 130			11/02/24 05:41	11/03/24 05:01	1

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

Lab Sample ID: 380-120002-6

Date Collected: 10/28/24 10:31

Matrix: Water

Date Received: 10/30/24 09:35

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:58	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:58	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:58	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:58	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:58	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:58	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:58	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:58	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:58	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:58	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:58	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:58	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:58	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:58	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:58	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:58	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:58	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:58	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:58	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-120002-6

Date Collected: 10/28/24 10:31

Matrix: Water

Date Received: 10/30/24 09:35

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:58	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:58	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:58	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:58	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:58	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		11/01/24 06:41	11/01/24 23:58	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	99		50 - 200			11/01/24 06:41	11/01/24 23:58	1
13C6 PFDA	110		50 - 200			11/01/24 06:41	11/01/24 23:58	1
13C5 PFHxA	107		50 - 200			11/01/24 06:41	11/01/24 23:58	1
13C4 PFHpA	110		50 - 200			11/01/24 06:41	11/01/24 23:58	1
13C8 PFOA	107		50 - 200			11/01/24 06:41	11/01/24 23:58	1
13C9 PFNA	108		50 - 200			11/01/24 06:41	11/01/24 23:58	1
13C7 PFUnA	111		50 - 200			11/01/24 06:41	11/01/24 23:58	1
13C2 PFDoA	112		50 - 200			11/01/24 06:41	11/01/24 23:58	1
13C4 PFBA	115		50 - 200			11/01/24 06:41	11/01/24 23:58	1
13C5 PFPeA	118		50 - 200			11/01/24 06:41	11/01/24 23:58	1
13C3 PFBS	120		50 - 200			11/01/24 06:41	11/01/24 23:58	1
13C3 PFHxS	117		50 - 200			11/01/24 06:41	11/01/24 23:58	1
13C8 PFOS	112		50 - 200			11/01/24 06:41	11/01/24 23:58	1
13C2-4:2-FTS	117		50 - 200			11/01/24 06:41	11/01/24 23:58	1
13C2-6:2-FTS	113		50 - 200			11/01/24 06:41	11/01/24 23:58	1
13C2-8:2-FTS	110		50 - 200			11/01/24 06:41	11/01/24 23:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:12	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:12	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:12	1
N-methylperfluorooctanesulfonamide acetic acid (NMeFOSAA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:12	1
N-ethylperfluorooctanesulfonamide acetic acid (NEtFOSAA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:12	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:12	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:12	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:12	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:12	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:12	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:12	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:12	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:12	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:12	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:12	1

Client Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-120002-6

Date Collected: 10/28/24 10:31

Matrix: Water

Date Received: 10/30/24 09:35

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:12	1
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:12	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:12	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	101		70 - 130			11/02/24 05:41	11/03/24 05:12	1
13C2 PFHxA	108		70 - 130			11/02/24 05:41	11/03/24 05:12	1
13C2 PFDA	111		70 - 130			11/02/24 05:41	11/03/24 05:12	1
13C3-GenX	96		70 - 130			11/02/24 05:41	11/03/24 05:12	1

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

Lab Sample ID: 380-120002-7

Date Collected: 10/28/24 10:55

Matrix: Water

Date Received: 10/30/24 09:35

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:08	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:08	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:08	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:08	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:08	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:08	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:08	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:08	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:08	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:08	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:08	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:08	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:08	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:08	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:08	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:08	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:08	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:08	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:08	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:08	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:08	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-120002-7

Date Collected: 10/28/24 10:55

Matrix: Water

Date Received: 10/30/24 09:35

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:08	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:08	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:08	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:08	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	96		50 - 200			11/01/24 06:41	11/02/24 00:08	1
13C6 PFDA	114		50 - 200			11/01/24 06:41	11/02/24 00:08	1
13C5 PFHxA	110		50 - 200			11/01/24 06:41	11/02/24 00:08	1
13C4 PFHpA	110		50 - 200			11/01/24 06:41	11/02/24 00:08	1
13C8 PFOA	110		50 - 200			11/01/24 06:41	11/02/24 00:08	1
13C9 PFNA	106		50 - 200			11/01/24 06:41	11/02/24 00:08	1
13C7 PFUnA	108		50 - 200			11/01/24 06:41	11/02/24 00:08	1
13C2 PFDoA	111		50 - 200			11/01/24 06:41	11/02/24 00:08	1
13C4 PFBA	110		50 - 200			11/01/24 06:41	11/02/24 00:08	1
13C5 PFPeA	112		50 - 200			11/01/24 06:41	11/02/24 00:08	1
13C3 PFBS	112		50 - 200			11/01/24 06:41	11/02/24 00:08	1
13C3 PFHxS	112		50 - 200			11/01/24 06:41	11/02/24 00:08	1
13C8 PFOS	107		50 - 200			11/01/24 06:41	11/02/24 00:08	1
13C2-4:2-FTS	112		50 - 200			11/01/24 06:41	11/02/24 00:08	1
13C2-6:2-FTS	107		50 - 200			11/01/24 06:41	11/02/24 00:08	1
13C2-8:2-FTS	105		50 - 200			11/01/24 06:41	11/02/24 00:08	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:33	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:33	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:33	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:33	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:33	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:33	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:33	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:33	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:33	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:33	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:33	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:33	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:33	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:33	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:33	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:33	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:33	1

Client Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-120002-7

Date Collected: 10/28/24 10:55

Matrix: Water

Date Received: 10/30/24 09:35

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:33	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	101		70 - 130			11/02/24 05:41	11/03/24 05:33	1
13C2 PFHxA	108		70 - 130			11/02/24 05:41	11/03/24 05:33	1
13C2 PFDA	116		70 - 130			11/02/24 05:41	11/03/24 05:33	1
13C3-GenX	97		70 - 130			11/02/24 05:41	11/03/24 05:33	1

Client Sample ID: FB: KA'AMILO WELLS

Lab Sample ID: 380-120002-8

Date Collected: 10/28/24 11:18

Matrix: Water

Date Received: 10/30/24 09:35

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:19	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:19	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:19	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:19	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:19	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:19	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:19	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:19	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:19	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:19	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:19	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:19	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:19	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:19	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:19	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:19	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:19	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:19	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:19	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:19	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:19	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:19	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:19	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:19	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

Client Sample ID: FB: KA'AMILO WELLS

Lab Sample ID: 380-120002-8

Date Collected: 10/28/24 11:18

Matrix: Water

Date Received: 10/30/24 09:35

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		11/01/24 06:41	11/02/24 00:19	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	103		50 - 200			11/01/24 06:41	11/02/24 00:19	1
13C6 PFDA	106		50 - 200			11/01/24 06:41	11/02/24 00:19	1
13C5 PFHxA	109		50 - 200			11/01/24 06:41	11/02/24 00:19	1
13C4 PFHpA	114		50 - 200			11/01/24 06:41	11/02/24 00:19	1
13C8 PFOA	111		50 - 200			11/01/24 06:41	11/02/24 00:19	1
13C9 PFNA	109		50 - 200			11/01/24 06:41	11/02/24 00:19	1
13C7 PFUnA	92		50 - 200			11/01/24 06:41	11/02/24 00:19	1
13C2 PFDoA	85		50 - 200			11/01/24 06:41	11/02/24 00:19	1
13C4 PFBA	111		50 - 200			11/01/24 06:41	11/02/24 00:19	1
13C5 PFPeA	112		50 - 200			11/01/24 06:41	11/02/24 00:19	1
13C3 PFBS	114		50 - 200			11/01/24 06:41	11/02/24 00:19	1
13C3 PFHxS	114		50 - 200			11/01/24 06:41	11/02/24 00:19	1
13C8 PFOS	109		50 - 200			11/01/24 06:41	11/02/24 00:19	1
13C2-4:2-FTS	112		50 - 200			11/01/24 06:41	11/02/24 00:19	1
13C2-6:2-FTS	112		50 - 200			11/01/24 06:41	11/02/24 00:19	1
13C2-8:2-FTS	101		50 - 200			11/01/24 06:41	11/02/24 00:19	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		11/02/24 05:41	11/03/24 05:44	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:44	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:44	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:44	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:44	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:44	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:44	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:44	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:44	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:44	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:44	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:44	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:44	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:44	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:44	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:44	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:44	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/02/24 05:41	11/03/24 05:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	104		70 - 130			11/02/24 05:41	11/03/24 05:44	1
13C2 PFHxA	105		70 - 130			11/02/24 05:41	11/03/24 05:44	1
13C2 PFDA	114		70 - 130			11/02/24 05:41	11/03/24 05:44	1

Client Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

Client Sample ID: FB: KA'AMILO WELLS

Lab Sample ID: 380-120002-8

Date Collected: 10/28/24 11:18

Matrix: Water

Date Received: 10/30/24 09:35

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

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
13C3-GenX	99		70 - 130	11/02/24 05:41	11/03/24 05:44	1

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Action Limit Summary

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-120002-1

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL	RL	Method	Prep Type
				Limit			
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.4		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.2		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	533	Total/NA
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	537.1	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.3		ng/L	4	2.0	537.1	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.7		ng/L	10	2.0	537.1	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	537.1	Total/NA

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

Lab Sample ID: 380-120002-2

Compliance Check

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

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

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

Lab Sample ID: 380-120002-3

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL	RL	Method	Prep Type
				Limit			
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA

Eurofins Eaton Analytical Pomona

Action Limit Summary

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-120002-3

Compliance Check

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

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

Client Sample ID: KA'AMILO WELLS

Lab Sample ID: 380-120002-4

Compliance Check

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

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

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

Lab Sample ID: 380-120002-5

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

Eurofins Eaton Analytical Pomona

Action Limit Summary

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-120002-5

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	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: 380-120002-6

Compliance Check

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

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

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

Lab Sample ID: 380-120002-7

Compliance Check

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

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

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Action Limit Summary

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-120002-7

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 Limit	RL	Method	Prep Type
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	537.1	Total/NA

Client Sample ID: FB: KA'AMILO WELLS

Lab Sample ID: 380-120002-8

Compliance Check

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

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

Surrogate Summary

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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)
380-120002-1	HALAWA WELLS UNITS 1 & 2 F	107	109	110	98
380-120002-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	98	110	105	93
380-120002-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	105	106	111	95

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)
380-119999-B-1-A MS	Matrix Spike	103	119	118	110
380-119999-C-1-A MSD	Matrix Spike Duplicate	98	114	110	99
380-120002-4	KA'AMILO WELLS	108	105	110	94
380-120002-5	FB: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	110	112	111	101
380-120002-6	FB: AIEA GULCH WELLS PUMF 2 (331-202-TP072)	101	108	111	96
380-120002-7	FB: AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	101	108	116	97
380-120002-8	FB: KA'AMILO WELLS	104	105	114	99
LCS 380-116951/22-A	Lab Control Sample	91	101	111	92
MBL 380-116951/20-A	Method Blank	94	102	112	91
MRL 380-116951/21-A	Lab Control Sample	108	101	112	96

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: 380-120002-1
SDG: Weekly PFAS

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

Matrix: Drinking Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	HFPODA (50-200)	C6PFDA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	13C7PUA (50-200)	PFDoA (50-200)
380-120002-1	HALAWA WELLS UNITS 1 & 2 F	85	78	92	87	85	81	80	83
380-120002-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	64	58	72	69	65	59	64	71
380-120002-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	76	64	82	84	72	64	68	79

		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)
380-120002-1	HALAWA WELLS UNITS 1 & 2 F	96	100	115	112	115	143	153	126
380-120002-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	80	77	110	110	110	120	133	111
380-120002-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	88	87	113	115	110	118	118	114

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

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

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	HFPODA (50-200)	C6PFDA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	13C7PUA (50-200)	PFDoA (50-200)
380-119894-B-1-A MS	Matrix Spike	60	61	62	64	61	60	67	72
380-119894-C-1-A MSD	Matrix Spike Duplicate	81	95	88	91	93	92	96	97
380-119989-E-1-A MS	Matrix Spike	89	98	92	94	91	93	98	100
380-119989-F-1-A MSD	Matrix Spike Duplicate	80	91	86	88	85	86	95	95
380-120002-4	KA'AMILO WELLS	84	82	88	85	82	76	83	90
380-120002-5	FB: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	92	109	109	112	110	108	104	111
380-120002-6	FB: AIEA GULCH WELLS PUMF 2 (331-202-TP072)	99	110	107	110	107	108	111	112
380-120002-7	FB: AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	96	114	110	110	110	106	108	111
380-120002-8	FB: KA'AMILO WELLS	103	106	109	114	111	109	92	85
LCS 380-116533/21-A	Lab Control Sample	80	95	86	92	93	90	91	93
LCS 380-116780/22-A	Lab Control Sample	99	110	110	108	110	108	107	113

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Isotope Dilution Summary

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

Job ID: 380-120002-1
 SDG: Weekly PFAS

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

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	HFPODA (50-200)	C6PFDA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	13C7PUA (50-200)	PFDoA (50-200)
MBL 380-116533/19-A	Method Blank	99	105	105	109	108	105	105	106
MBL 380-116780/20-A	Method Blank	94	105	104	108	104	104	104	102
MRL 380-116533/20-A	Lab Control Sample	102	114	111	115	113	109	109	111
MRL 380-116780/21-A	Lab Control Sample	89	108	104	110	106	104	107	109
		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)
380-119894-B-1-A MS	Matrix Spike	64	63	107	113	108	112	108	107
380-119894-C-1-A MSD	Matrix Spike Duplicate	86	86	110	113	108	121	114	112
380-119989-E-1-A MS	Matrix Spike	98	97	113	114	112	115	113	113
380-119989-F-1-A MSD	Matrix Spike Duplicate	89	90	114	115	112	115	109	112
380-120002-4	KA'AMILO WELLS	96	94	113	113	110	114	108	111
380-120002-5	FB: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	113	114	114	111	110	120	108	108
380-120002-6	FB: AIEA GULCH WELLS PUMF 2 (331-202-TP072)	115	118	120	117	112	117	113	110
380-120002-7	FB: AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	110	112	112	112	107	112	107	105
380-120002-8	FB: KA'AMILO WELLS	111	112	114	114	109	112	112	101
LCS 380-116533/21-A	Lab Control Sample	84	83	114	111	110	116	104	107
LCS 380-116780/22-A	Lab Control Sample	109	110	113	114	111	117	107	106
MBL 380-116533/19-A	Method Blank	112	112	113	113	109	118	116	108
MBL 380-116780/20-A	Method Blank	104	105	104	104	103	107	102	100
MRL 380-116533/20-A	Lab Control Sample	108	107	114	115	110	122	112	111
MRL 380-116780/21-A	Lab Control Sample	111	112	113	115	108	110	109	109

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: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-116533/19-A
Matrix: Water
Analysis Batch: 116706

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 116533

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosfluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		10/31/24 06:15	11/01/24 00:09	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		10/31/24 06:15	11/01/24 00:09	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		10/31/24 06:15	11/01/24 00:09	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		10/31/24 06:15	11/01/24 00:09	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		10/31/24 06:15	11/01/24 00:09	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		10/31/24 06:15	11/01/24 00:09	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		10/31/24 06:15	11/01/24 00:09	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		10/31/24 06:15	11/01/24 00:09	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		10/31/24 06:15	11/01/24 00:09	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		10/31/24 06:15	11/01/24 00:09	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		10/31/24 06:15	11/01/24 00:09	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		10/31/24 06:15	11/01/24 00:09	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		10/31/24 06:15	11/01/24 00:09	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		10/31/24 06:15	11/01/24 00:09	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		10/31/24 06:15	11/01/24 00:09	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		10/31/24 06:15	11/01/24 00:09	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		10/31/24 06:15	11/01/24 00:09	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		10/31/24 06:15	11/01/24 00:09	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		10/31/24 06:15	11/01/24 00:09	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		10/31/24 06:15	11/01/24 00:09	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		10/31/24 06:15	11/01/24 00:09	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		10/31/24 06:15	11/01/24 00:09	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		10/31/24 06:15	11/01/24 00:09	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		10/31/24 06:15	11/01/24 00:09	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		10/31/24 06:15	11/01/24 00:09	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	99		50 - 200	10/31/24 06:15	11/01/24 00:09	1
13C6 PFDA	105		50 - 200	10/31/24 06:15	11/01/24 00:09	1
13C5 PFHxA	105		50 - 200	10/31/24 06:15	11/01/24 00:09	1
13C4 PFHpA	109		50 - 200	10/31/24 06:15	11/01/24 00:09	1
13C8 PFOA	108		50 - 200	10/31/24 06:15	11/01/24 00:09	1
13C9 PFNA	105		50 - 200	10/31/24 06:15	11/01/24 00:09	1
13C7 PFUnA	105		50 - 200	10/31/24 06:15	11/01/24 00:09	1
13C2 PFDoA	106		50 - 200	10/31/24 06:15	11/01/24 00:09	1
13C4 PFBA	112		50 - 200	10/31/24 06:15	11/01/24 00:09	1
13C5 PFPeA	112		50 - 200	10/31/24 06:15	11/01/24 00:09	1
13C3 PFBS	113		50 - 200	10/31/24 06:15	11/01/24 00:09	1
13C3 PFHxS	113		50 - 200	10/31/24 06:15	11/01/24 00:09	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-116533/19-A
Matrix: Water
Analysis Batch: 116706

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 116533

<i>Isotope Dilution</i>	<i>MBL %Recovery</i>	<i>MBL Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C8 PFOS	109		50 - 200	10/31/24 06:15	11/01/24 00:09	1
13C2-4:2-FTS	118		50 - 200	10/31/24 06:15	11/01/24 00:09	1
13C2-6:2-FTS	116		50 - 200	10/31/24 06:15	11/01/24 00:09	1
13C2-8:2-FTS	108		50 - 200	10/31/24 06:15	11/01/24 00:09	1

Lab Sample ID: LCS 380-116533/21-A
Matrix: Water
Analysis Batch: 116706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 116533

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	60.0	53.4		ng/L		89	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	60.0	58.5		ng/L		97	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.0	52.0		ng/L		87	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.0	58.7		ng/L		98	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.0	57.8		ng/L		96	70 - 130
Perfluorodecanoic acid (PFDA)	60.0	61.0		ng/L		102	70 - 130
Perfluorododecanoic acid (PFDoA)	60.0	59.2		ng/L		99	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.0	58.3		ng/L		97	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.0	59.0		ng/L		98	70 - 130
Perfluorohexanoic acid (PFHxA)	60.0	59.2		ng/L		99	70 - 130
Perfluorononanoic acid (PFNA)	60.0	60.7		ng/L		101	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.0	61.3		ng/L		102	70 - 130
Perfluorooctanoic acid (PFOA)	60.0	57.4		ng/L		96	70 - 130
Perfluoroundecanoic acid (PFUnA)	60.0	60.9		ng/L		101	70 - 130
Perfluorobutanoic acid (PFBA)	60.0	59.1		ng/L		98	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.0	62.7		ng/L		104	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.0	61.1		ng/L		102	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.0	64.8		ng/L		108	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	60.0	53.5		ng/L		89	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	60.0	56.1		ng/L		94	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.0	54.9		ng/L		92	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.0	56.7		ng/L		94	70 - 130
Perfluoropentanoic acid (PFPeA)	60.0	60.5		ng/L		101	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	60.0	59.9		ng/L		100	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: LCS 380-116533/21-A
Matrix: Water
Analysis Batch: 116706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 116533

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	60.0	58.6		ng/L		98	70 - 130
LCS LCS							
Isotope Dilution	%Recovery	Qualifier	Limits				
13C3 HFPO-DA	80		50 - 200				
13C6 PFDA	95		50 - 200				
13C5 PFHxA	86		50 - 200				
13C4 PFHpA	92		50 - 200				
13C8 PFOA	93		50 - 200				
13C9 PFNA	90		50 - 200				
13C7 PFUnA	91		50 - 200				
13C2 PFDoA	93		50 - 200				
13C4 PFBA	84		50 - 200				
13C5 PFPeA	83		50 - 200				
13C3 PFBS	114		50 - 200				
13C3 PFHxS	111		50 - 200				
13C8 PFOS	110		50 - 200				
13C2-4:2-FTS	116		50 - 200				
13C2-6:2-FTS	104		50 - 200				
13C2-8:2-FTS	107		50 - 200				

Lab Sample ID: MRL 380-116533/20-A
Matrix: Water
Analysis Batch: 116706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 116533

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	1.94	J	ng/L		97	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	2.02	J	ng/L		101	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	2.00	J	ng/L		100	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	2.04	J	ng/L		102	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.05	J	ng/L		102	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.14	J	ng/L		107	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.10	J	ng/L		105	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.15	J	ng/L		107	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.12	J	ng/L		106	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	2.15	J	ng/L		108	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.21	J	ng/L		110	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.30	J	ng/L		115	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.10	J	ng/L		105	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.16	J	ng/L		108	50 - 150
Perfluorobutanoic acid (PFBA)	2.00	2.07	J	ng/L		103	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: MRL 380-116533/20-A
Matrix: Water
Analysis Batch: 116706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 116533

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.00	2.07	J	ng/L		103	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.00	2.17	J	ng/L		108	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.00	2.27	J	ng/L		113	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.00	2.19	J	ng/L		109	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.00	1.98	J	ng/L		99	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.00	2.10	J	ng/L		105	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.00	1.92	J	ng/L		96	50 - 150
Perfluoropentanoic acid (PFPeA)	2.00	2.08	J	ng/L		104	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.00	2.03	J	ng/L		101	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.00	1.93	J	ng/L		96	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	102		50 - 200
13C6 PFDA	114		50 - 200
13C5 PFHxA	111		50 - 200
13C4 PFHpA	115		50 - 200
13C8 PFOA	113		50 - 200
13C9 PFNA	109		50 - 200
13C7 PFUnA	109		50 - 200
13C2 PFDoA	111		50 - 200
13C4 PFBA	108		50 - 200
13C5 PFPeA	107		50 - 200
13C3 PFBS	114		50 - 200
13C3 PFHxS	115		50 - 200
13C8 PFOS	110		50 - 200
13C2-4:2-FTS	122		50 - 200
13C2-6:2-FTS	112		50 - 200
13C2-8:2-FTS	111		50 - 200

Lab Sample ID: 380-119894-B-1-A MS
Matrix: Water
Analysis Batch: 116706

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 116533

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.0	54.1		ng/L		90	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.0	57.1		ng/L		95	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.0	53.7		ng/L		90	70 - 130

QC Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-119894-B-1-A MS
Matrix: Water
Analysis Batch: 116706

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 116533

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	<2.0		60.0	57.9		ng/L		97	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.0	62.3		ng/L		104	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.0	58.5		ng/L		98	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.0	59.3		ng/L		99	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.0	58.5		ng/L		97	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.0	58.7		ng/L		98	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		60.0	60.7		ng/L		101	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.0	59.6		ng/L		99	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.0	59.6		ng/L		99	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.0	58.0		ng/L		97	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.0	59.3		ng/L		99	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.0	59.8		ng/L		100	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.0	61.3		ng/L		102	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.0	61.9		ng/L		103	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.0	60.9		ng/L		101	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.0	57.5		ng/L		96	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.0	60.6		ng/L		101	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.0	56.9		ng/L		95	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.0	53.3		ng/L		89	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		60.0	56.1		ng/L		94	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.0	58.8		ng/L		98	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.0	57.4		ng/L		96	70 - 130

Isotope Dilution	MS MS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	60		50 - 200
13C6 PFDA	61		50 - 200
13C5 PFHxA	62		50 - 200
13C4 PFHpA	64		50 - 200
13C8 PFOA	61		50 - 200
13C9 PFNA	60		50 - 200
13C7 PFUnA	67		50 - 200
13C2 PFDoA	72		50 - 200
13C4 PFBA	64		50 - 200
13C5 PFPeA	63		50 - 200
13C3 PFBS	107		50 - 200
13C3 PFHxS	113		50 - 200
13C8 PFOS	108		50 - 200

QC Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-119894-B-1-A MS
Matrix: Water
Analysis Batch: 116706

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 116533

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
13C2-4:2-FTS	112		50 - 200
13C2-6:2-FTS	108		50 - 200
13C2-8:2-FTS	107		50 - 200

Lab Sample ID: 380-119894-C-1-A MSD
Matrix: Water
Analysis Batch: 116706

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 116533

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.0	51.7		ng/L		86	70 - 130	5	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.0	59.3		ng/L		99	70 - 130	4	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.0	53.6		ng/L		89	70 - 130	0	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.0	58.4		ng/L		97	70 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.0	62.2		ng/L		104	70 - 130	0	30
Perfluorodecanoic acid (PFDA)	<2.0		60.0	62.7		ng/L		105	70 - 130	7	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.0	57.9		ng/L		97	70 - 130	2	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.0	58.2		ng/L		97	70 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.0	60.7		ng/L		101	70 - 130	3	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.0	61.9		ng/L		103	70 - 130	2	30
Perfluorononanoic acid (PFNA)	<2.0		60.0	61.9		ng/L		103	70 - 130	4	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.0	60.7		ng/L		101	70 - 130	2	30
Perfluorooctanoic acid (PFOA)	<2.0		60.0	57.0		ng/L		95	70 - 130	2	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.0	60.9		ng/L		102	70 - 130	3	30
Perfluorobutanoic acid (PFBA)	<2.0		60.0	59.4		ng/L		99	70 - 130	1	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.0	61.4		ng/L		102	70 - 130	0	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.0	61.1		ng/L		102	70 - 130	1	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.0	63.2		ng/L		105	70 - 130	4	30
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.0	50.1		ng/L		84	70 - 130	14	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.0	59.2		ng/L		99	70 - 130	2	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.0	56.6		ng/L		94	70 - 130	1	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.0	55.7		ng/L		93	70 - 130	4	30
Perfluoropentanoic acid (PFPeA)	<2.0		60.0	58.6		ng/L		98	70 - 130	4	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.0	59.9		ng/L		100	70 - 130	2	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.0	58.3		ng/L		97	70 - 130	2	30

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Isotope Dilution	MSD MSD		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	81		50 - 200
13C6 PFDA	95		50 - 200
13C5 PFHxA	88		50 - 200
13C4 PFHpA	91		50 - 200
13C8 PFOA	93		50 - 200
13C9 PFNA	92		50 - 200
13C7 PFUnA	96		50 - 200
13C2 PFDoA	97		50 - 200
13C4 PFBA	86		50 - 200
13C5 PFPeA	86		50 - 200
13C3 PFBS	110		50 - 200
13C3 PFHxS	113		50 - 200
13C8 PFOS	108		50 - 200
13C2-4:2-FTS	121		50 - 200
13C2-6:2-FTS	114		50 - 200
13C2-8:2-FTS	112		50 - 200

Lab Sample ID: MBL 380-116780/20-A
Matrix: Water
Analysis Batch: 116921

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 116780

Analyte	MBL	MBL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
11-Chloroeicosfluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		11/01/24 06:41	11/01/24 20:01	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		11/01/24 06:41	11/01/24 20:01	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		11/01/24 06:41	11/01/24 20:01	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		11/01/24 06:41	11/01/24 20:01	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		11/01/24 06:41	11/01/24 20:01	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		11/01/24 06:41	11/01/24 20:01	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		11/01/24 06:41	11/01/24 20:01	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		11/01/24 06:41	11/01/24 20:01	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		11/01/24 06:41	11/01/24 20:01	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		11/01/24 06:41	11/01/24 20:01	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		11/01/24 06:41	11/01/24 20:01	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		11/01/24 06:41	11/01/24 20:01	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		11/01/24 06:41	11/01/24 20:01	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		11/01/24 06:41	11/01/24 20:01	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		11/01/24 06:41	11/01/24 20:01	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		11/01/24 06:41	11/01/24 20:01	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		11/01/24 06:41	11/01/24 20:01	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		11/01/24 06:41	11/01/24 20:01	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		11/01/24 06:41	11/01/24 20:01	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<0.25		2.0	ng/L		11/01/24 06:41	11/01/24 20:01	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		11/01/24 06:41	11/01/24 20:01	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		11/01/24 06:41	11/01/24 20:01	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-116780/20-A
Matrix: Water
Analysis Batch: 116921

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 116780

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		11/01/24 06:41	11/01/24 20:01	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		11/01/24 06:41	11/01/24 20:01	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		11/01/24 06:41	11/01/24 20:01	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	94		50 - 200	11/01/24 06:41	11/01/24 20:01	1
13C6 PFDA	105		50 - 200	11/01/24 06:41	11/01/24 20:01	1
13C5 PFHxA	104		50 - 200	11/01/24 06:41	11/01/24 20:01	1
13C4 PFHpA	108		50 - 200	11/01/24 06:41	11/01/24 20:01	1
13C8 PFOA	104		50 - 200	11/01/24 06:41	11/01/24 20:01	1
13C9 PFNA	104		50 - 200	11/01/24 06:41	11/01/24 20:01	1
13C7 PFUnA	104		50 - 200	11/01/24 06:41	11/01/24 20:01	1
13C2 PFDoA	102		50 - 200	11/01/24 06:41	11/01/24 20:01	1
13C4 PFBA	104		50 - 200	11/01/24 06:41	11/01/24 20:01	1
13C5 PFPeA	105		50 - 200	11/01/24 06:41	11/01/24 20:01	1
13C3 PFBS	104		50 - 200	11/01/24 06:41	11/01/24 20:01	1
13C3 PFHxS	104		50 - 200	11/01/24 06:41	11/01/24 20:01	1
13C8 PFOS	103		50 - 200	11/01/24 06:41	11/01/24 20:01	1
13C2-4:2-FTS	107		50 - 200	11/01/24 06:41	11/01/24 20:01	1
13C2-6:2-FTS	102		50 - 200	11/01/24 06:41	11/01/24 20:01	1
13C2-8:2-FTS	100		50 - 200	11/01/24 06:41	11/01/24 20:01	1

Lab Sample ID: LCS 380-116780/22-A
Matrix: Water
Analysis Batch: 116921

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 116780

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	60.1	51.8		ng/L		86	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	60.1	54.6		ng/L		91	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.1	57.8		ng/L		96	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.1	54.3		ng/L		90	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.1	57.1		ng/L		95	70 - 130
Perfluorodecanoic acid (PFDA)	60.1	56.4		ng/L		94	70 - 130
Perfluorododecanoic acid (PFDoA)	60.1	56.1		ng/L		93	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.1	58.3		ng/L		97	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.1	56.2		ng/L		94	70 - 130
Perfluorohexanoic acid (PFHxA)	60.1	57.9		ng/L		96	70 - 130
Perfluorononanoic acid (PFNA)	60.1	58.2		ng/L		97	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.1	55.3		ng/L		92	70 - 130
Perfluorooctanoic acid (PFOA)	60.1	55.6		ng/L		93	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: LCS 380-116780/22-A
Matrix: Water
Analysis Batch: 116921

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 116780

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	60.1	57.7		ng/L		96	70 - 130
Perfluorobutanoic acid (PFBA)	60.1	55.2		ng/L		92	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.1	56.8		ng/L		94	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.1	58.1		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.1	61.3		ng/L		102	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	60.1	55.2		ng/L		92	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	60.1	55.0		ng/L		91	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.1	59.0		ng/L		98	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.1	56.2		ng/L		93	70 - 130
Perfluoropentanoic acid (PFPeA)	60.1	56.7		ng/L		94	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	60.1	56.0		ng/L		93	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	60.1	54.0		ng/L		90	70 - 130

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	99		50 - 200
13C6 PFDA	110		50 - 200
13C5 PFHxA	110		50 - 200
13C4 PFHpA	108		50 - 200
13C8 PFOA	110		50 - 200
13C9 PFNA	108		50 - 200
13C7 PFUnA	107		50 - 200
13C2 PFDoA	113		50 - 200
13C4 PFBA	109		50 - 200
13C5 PFPeA	110		50 - 200
13C3 PFBS	113		50 - 200
13C3 PFHxS	114		50 - 200
13C8 PFOS	111		50 - 200
13C2-4:2-FTS	117		50 - 200
13C2-6:2-FTS	107		50 - 200
13C2-8:2-FTS	106		50 - 200

Lab Sample ID: MRL 380-116780/21-A
Matrix: Water
Analysis Batch: 116921

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 116780

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	1.71	J	ng/L		86	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	1.83	J	ng/L		91	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: MRL 380-116780/21-A
Matrix: Water
Analysis Batch: 116921

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 116780

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	1.80	J	ng/L		90	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	1.83	J	ng/L		91	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	1.95	J	ng/L		97	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	1.99	J	ng/L		99	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	1.84	J	ng/L		92	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.00	J	ng/L		100	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	1.88	J	ng/L		94	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	2.05	J	ng/L		102	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.09	J	ng/L		104	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.07	J	ng/L		103	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.00	J	ng/L		100	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	1.90	J	ng/L		95	50 - 150
Perfluorobutanoic acid (PFBA)	2.00	1.91	J	ng/L		95	50 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.00	2.02	J	ng/L		101	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.00	2.03	J	ng/L		101	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.00	2.23	J	ng/L		111	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.00	1.99	J	ng/L		99	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.00	1.82	J	ng/L		91	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.00	1.91	J	ng/L		95	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.00	1.84	J	ng/L		92	50 - 150
Perfluoropentanoic acid (PFPeA)	2.00	2.00	J	ng/L		100	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.00	1.87	J	ng/L		93	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.00	1.68	J	ng/L		84	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	89		50 - 200
13C6 PFDA	108		50 - 200
13C5 PFHxA	104		50 - 200
13C4 PFHpA	110		50 - 200
13C8 PFOA	106		50 - 200
13C9 PFNA	104		50 - 200
13C7 PFUnA	107		50 - 200
13C2 PFDoA	109		50 - 200
13C4 PFBA	111		50 - 200
13C5 PFPeA	112		50 - 200
13C3 PFBS	113		50 - 200
13C3 PFHxS	115		50 - 200

QC Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: MRL 380-116780/21-A
Matrix: Water
Analysis Batch: 116921

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 116780

<i>Isotope Dilution</i>	<i>MRL %Recovery</i>	<i>MRL Qualifier</i>	<i>Limits</i>
13C8 PFOS	108		50 - 200
13C2-4:2-FTS	110		50 - 200
13C2-6:2-FTS	109		50 - 200
13C2-8:2-FTS	109		50 - 200

Lab Sample ID: 380-119989-E-1-A MS
Matrix: Water
Analysis Batch: 116921

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 116780

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MS Result</i>	<i>MS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.0	51.2		ng/L		85	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		60.0	53.8		ng/L		90	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.0	50.9		ng/L		85	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.0	54.4		ng/L		91	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.0	59.8		ng/L		99	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.0	54.4		ng/L		91	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.0	55.9		ng/L		93	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.0	54.9		ng/L		91	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.0	56.7		ng/L		94	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		60.0	58.8		ng/L		96	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.0	56.5		ng/L		94	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.0	55.0		ng/L		91	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.0	56.0		ng/L		93	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.0	53.0		ng/L		88	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.0	54.7		ng/L		91	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.0	54.0		ng/L		90	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.0	55.5		ng/L		93	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.0	56.7		ng/L		94	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.0	52.5		ng/L		87	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		60.0	53.9		ng/L		90	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.0	53.2		ng/L		89	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.0	52.2		ng/L		87	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		60.0	55.9		ng/L		91	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.0	56.2		ng/L		94	70 - 130

QC Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-119989-E-1-A MS
Matrix: Water
Analysis Batch: 116921

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 116780

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.0	53.7		ng/L		90	70 - 130
MS MS									
Isotope Dilution	%Recovery	Qualifier	Limits						
13C3 HFPO-DA	89		50 - 200						
13C6 PFDA	98		50 - 200						
13C5 PFHxA	92		50 - 200						
13C4 PFHpA	94		50 - 200						
13C8 PFOA	91		50 - 200						
13C9 PFNA	93		50 - 200						
13C7 PFUnA	98		50 - 200						
13C2 PFDoA	100		50 - 200						
13C4 PFBA	98		50 - 200						
13C5 PFPeA	97		50 - 200						
13C3 PFBS	113		50 - 200						
13C3 PFHxS	114		50 - 200						
13C8 PFOS	112		50 - 200						
13C2-4:2-FTS	115		50 - 200						
13C2-6:2-FTS	113		50 - 200						
13C2-8:2-FTS	113		50 - 200						

Lab Sample ID: 380-119989-F-1-A MSD
Matrix: Water
Analysis Batch: 116921

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 116780

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.1	50.3		ng/L		84	70 - 130	2	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.1	55.3		ng/L		92	70 - 130	3	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.1	51.4		ng/L		85	70 - 130	1	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.1	54.5		ng/L		91	70 - 130	0	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.1	58.3		ng/L		96	70 - 130	3	30
Perfluorodecanoic acid (PFDA)	<2.0		60.1	54.0		ng/L		90	70 - 130	1	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.1	58.3		ng/L		97	70 - 130	4	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.1	54.6		ng/L		90	70 - 130	0	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.1	56.5		ng/L		93	70 - 130	0	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.1	59.2		ng/L		96	70 - 130	1	30
Perfluorononanoic acid (PFNA)	<2.0		60.1	57.2		ng/L		95	70 - 130	1	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.1	56.2		ng/L		93	70 - 130	2	30
Perfluorooctanoic acid (PFOA)	<2.0		60.1	56.4		ng/L		93	70 - 130	1	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.1	55.3		ng/L		92	70 - 130	4	30
Perfluorobutanoic acid (PFBA)	<2.0		60.1	58.1		ng/L		97	70 - 130	6	30

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-119989-F-1-A MSD
Matrix: Water
Analysis Batch: 116921

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 116780

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.1	54.2		ng/L		90	70 - 130	0	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.1	56.5		ng/L		94	70 - 130	2	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.1	59.8		ng/L		99	70 - 130	5	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.1	54.3		ng/L		90	70 - 130	3	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.1	55.6		ng/L		93	70 - 130	3	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.1	55.7		ng/L		93	70 - 130	4	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.1	52.2		ng/L		87	70 - 130	0	30
Perfluoropentanoic acid (PFPeA)	<2.0		60.1	56.8		ng/L		92	70 - 130	2	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.1	56.3		ng/L		94	70 - 130	0	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.1	55.2		ng/L		92	70 - 130	3	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	MSD Limits
13C3 HFPO-DA	80		50 - 200
13C6 PFDA	91		50 - 200
13C5 PFHxA	86		50 - 200
13C4 PFHpA	88		50 - 200
13C8 PFOA	85		50 - 200
13C9 PFNA	86		50 - 200
13C7 PFUnA	95		50 - 200
13C2 PFDoA	95		50 - 200
13C4 PFBA	89		50 - 200
13C5 PFPeA	90		50 - 200
13C3 PFBS	114		50 - 200
13C3 PFHxS	115		50 - 200
13C8 PFOS	112		50 - 200
13C2-4:2-FTS	115		50 - 200
13C2-6:2-FTS	109		50 - 200
13C2-8:2-FTS	112		50 - 200

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

Lab Sample ID: MBL 380-116951/20-A
Matrix: Water
Analysis Batch: 116979

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 116951

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		11/02/24 05:41	11/03/24 02:40	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		11/02/24 05:41	11/03/24 02:40	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		11/02/24 05:41	11/03/24 02:40	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		11/02/24 05:41	11/03/24 02:40	1

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QC Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-116951/20-A
Matrix: Water
Analysis Batch: 116979

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 116951

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		11/02/24 05:41	11/03/24 02:40	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		11/02/24 05:41	11/03/24 02:40	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		11/02/24 05:41	11/03/24 02:40	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		11/02/24 05:41	11/03/24 02:40	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		11/02/24 05:41	11/03/24 02:40	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		11/02/24 05:41	11/03/24 02:40	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		11/02/24 05:41	11/03/24 02:40	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		11/02/24 05:41	11/03/24 02:40	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		11/02/24 05:41	11/03/24 02:40	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		11/02/24 05:41	11/03/24 02:40	1
Perfluorotridecanoic acid (PFTrDA)	<0.36		2.0	ng/L		11/02/24 05:41	11/03/24 02:40	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		11/02/24 05:41	11/03/24 02:40	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		11/02/24 05:41	11/03/24 02:40	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		11/02/24 05:41	11/03/24 02:40	1
Surrogate	MBL %Recovery	MBL Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	94		70 - 130			11/02/24 05:41	11/03/24 02:40	1
13C2 PFHxA	102		70 - 130			11/02/24 05:41	11/03/24 02:40	1
13C2 PFDA	112		70 - 130			11/02/24 05:41	11/03/24 02:40	1
13C3-GenX	91		70 - 130			11/02/24 05:41	11/03/24 02:40	1

Lab Sample ID: LCS 380-116951/22-A
Matrix: Water
Analysis Batch: 116979

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 116951

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	50.0	41.5		ng/L		83	70 - 130
Perfluorooctanesulfonic acid (PFOS)	50.0	54.5		ng/L		109	70 - 130
Perfluoroundecanoic acid (PFUnA)	50.0	52.7		ng/L		105	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	50.0	50.0		ng/L		100	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	50.0	43.0		ng/L		86	70 - 130
Perfluorohexanoic acid (PFHxA)	50.0	44.3		ng/L		89	70 - 130
Perfluorododecanoic acid (PFDoA)	50.0	51.7		ng/L		103	70 - 130
Perfluorooctanoic acid (PFOA)	50.0	51.8		ng/L		104	70 - 130
Perfluorodecanoic acid (PFDA)	50.0	55.4		ng/L		111	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	50.0	54.5		ng/L		109	70 - 130
Perfluorobutanesulfonic acid (PFBS)	50.0	48.9		ng/L		98	70 - 130
Perfluoroheptanoic acid (PFHpA)	50.0	50.9		ng/L		102	70 - 130
Perfluorononanoic acid (PFNA)	50.0	55.1		ng/L		110	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: LCS 380-116951/22-A
Matrix: Water
Analysis Batch: 116979

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 116951

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorotetradecanoic acid (PFTA)	50.0	51.8		ng/L		104	70 - 130
Perfluorotridecanoic acid (PFTrDA)	50.0	51.2		ng/L		102	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	50.0	51.1		ng/L		102	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	50.0	54.3		ng/L		109	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	50.0	47.8		ng/L		96	70 - 130
LCS LCS							
Surrogate	%Recovery	Qualifier	Limits				
d5-NEtFOSAA	91		70 - 130				
13C2 PFHxA	101		70 - 130				
13C2 PFDA	111		70 - 130				
13C3-GenX	92		70 - 130				

Lab Sample ID: MRL 380-116951/21-A
Matrix: Water
Analysis Batch: 116979

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 116951

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	1.78	J	ng/L		89	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.40	J	ng/L		120	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.27	J	ng/L		113	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	2.24	J	ng/L		112	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	2.05	J	ng/L		102	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	1.92	J	ng/L		96	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.12	J	ng/L		106	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.20	J	ng/L		110	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.41	J	ng/L		120	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.30	J	ng/L		115	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.05	J	ng/L		102	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.32	J	ng/L		116	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.46	J	ng/L		123	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.00	2.24	J	ng/L		112	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.00	2.19	J	ng/L		109	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	2.20	J	ng/L		110	50 - 150

QC Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: MRL 380-116951/21-A
Matrix: Water
Analysis Batch: 116979

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 116951

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	2.33	J	ng/L		116	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	2.17	J	ng/L		109	50 - 150
Surrogate	MRL %Recovery	MRL Qualifier	Limits				
d5-NEtFOSAA	108		70 - 130				
13C2 PFHxA	101		70 - 130				
13C2 PFDA	112		70 - 130				
13C3-GenX	96		70 - 130				

Lab Sample ID: 380-119999-B-1-A MS
Matrix: Water
Analysis Batch: 116979

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 116951

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		50.3	47.9		ng/L		95	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		50.3	55.3		ng/L		110	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		50.3	55.7		ng/L		111	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		50.3	52.1		ng/L		104	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		50.3	47.3		ng/L		94	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		50.3	50.7		ng/L		98	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		50.3	54.6		ng/L		108	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		50.3	55.9		ng/L		109	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		50.3	57.1		ng/L		114	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		50.3	58.6		ng/L		113	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		50.3	55.4		ng/L		109	70 - 130
Perfluoroheptanoic acid (PFHpA)	2.0		50.3	57.8		ng/L		114	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		50.3	58.5		ng/L		116	70 - 130
Perfluorotetradecanoic acid (PFTA)	<2.0		50.3	53.0		ng/L		105	70 - 130
Perfluorotridecanoic acid (PFTrDA)	<2.0		50.3	52.9		ng/L		105	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		50.3	52.4		ng/L		104	70 - 130
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		50.3	53.2		ng/L		106	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		50.3	53.1		ng/L		106	70 - 130

QC Sample Results

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-119999-B-1-A MS
Matrix: Water
Analysis Batch: 116979

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 116951

Surrogate	MS %Recovery	MS Qualifier	Limits
d5-NEtFOSAA	103		70 - 130
13C2 PFHxA	119		70 - 130
13C2 PFDA	118		70 - 130
13C3-GenX	110		70 - 130

Lab Sample ID: 380-119999-C-1-A MSD
Matrix: Water
Analysis Batch: 116979

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 116951

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec		RPD	RPD Limit
									Limits	RPD		
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		50.2	46.0		ng/L		92	70 - 130	4		30
Perfluorooctanesulfonic acid (PFOS)	<2.0		50.2	55.4		ng/L		110	70 - 130	0		30
Perfluoroundecanoic acid (PFUnA)	<2.0		50.2	51.9		ng/L		103	70 - 130	7		30
N-methylperfluorooctanesulfonamide doacetic acid (NMeFOSAA)	<2.0		50.2	52.2		ng/L		104	70 - 130	0		30
N-ethylperfluorooctanesulfonamide doacetic acid (NEtFOSAA)	<2.0		50.2	46.1		ng/L		92	70 - 130	2		30
Perfluorohexanoic acid (PFHxA)	<2.0		50.2	50.5		ng/L		98	70 - 130	0		30
Perfluorododecanoic acid (PFDoA)	<2.0		50.2	51.5		ng/L		103	70 - 130	6		30
Perfluorooctanoic acid (PFOA)	<2.0		50.2	54.9		ng/L		107	70 - 130	2		30
Perfluorodecanoic acid (PFDA)	<2.0		50.2	56.6		ng/L		113	70 - 130	1		30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		50.2	57.5		ng/L		111	70 - 130	2		30
Perfluorobutanesulfonic acid (PFBS)	<2.0		50.2	54.4		ng/L		107	70 - 130	2		30
Perfluoroheptanoic acid (PFHpA)	<2.0		50.2	54.5		ng/L		108	70 - 130	6		30
Perfluorononanoic acid (PFNA)	<2.0		50.2	55.4		ng/L		110	70 - 130	5		30
Perfluorotetradecanoic acid (PFTA)	<2.0		50.2	52.1		ng/L		104	70 - 130	2		30
Perfluorotridecanoic acid (PFTrDA)	<2.0		50.2	49.8		ng/L		99	70 - 130	6		30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		50.2	53.6		ng/L		107	70 - 130	2		30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		50.2	53.4		ng/L		106	70 - 130	0		30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		50.2	50.4		ng/L		100	70 - 130	5		30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
d5-NEtFOSAA	98		70 - 130
13C2 PFHxA	114		70 - 130
13C2 PFDA	110		70 - 130
13C3-GenX	99		70 - 130

QC Association Summary

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

Job ID: 380-120002-1
SDG: Weekly PFAS

LCMS

Prep Batch: 116533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-120002-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Drinking Water	533	
MBL 380-116533/19-A	Method Blank	Total/NA	Water	533	
LCS 380-116533/21-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-116533/20-A	Lab Control Sample	Total/NA	Water	533	
380-119894-B-1-A MS	Matrix Spike	Total/NA	Water	533	
380-119894-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 116706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MBL 380-116533/19-A	Method Blank	Total/NA	Water	533	116533
LCS 380-116533/21-A	Lab Control Sample	Total/NA	Water	533	116533
MRL 380-116533/20-A	Lab Control Sample	Total/NA	Water	533	116533
380-119894-B-1-A MS	Matrix Spike	Total/NA	Water	533	116533
380-119894-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	116533

Prep Batch: 116780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-120002-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	533	
380-120002-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP072)	Total/NA	Drinking Water	533	
380-120002-4	KA'AMILO WELLS	Total/NA	Water	533	
380-120002-5	FB: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Water	533	
380-120002-6	FB: AIEA GULCH WELLS PUMP 2 (331-202-TPC072)	Total/NA	Water	533	
380-120002-7	FB: AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP072)	Total/NA	Water	533	
380-120002-8	FB: KA'AMILO WELLS	Total/NA	Water	533	
MBL 380-116780/20-A	Method Blank	Total/NA	Water	533	
LCS 380-116780/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-116780/21-A	Lab Control Sample	Total/NA	Water	533	
380-119989-E-1-A MS	Matrix Spike	Total/NA	Water	533	
380-119989-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 116785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-120002-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Drinking Water	533	116533

Analysis Batch: 116921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-120002-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	533	116780
380-120002-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP072)	Total/NA	Drinking Water	533	116780
380-120002-4	KA'AMILO WELLS	Total/NA	Water	533	116780
380-120002-5	FB: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Water	533	116780
380-120002-6	FB: AIEA GULCH WELLS PUMP 2 (331-202-TPC072)	Total/NA	Water	533	116780
380-120002-7	FB: AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP072)	Total/NA	Water	533	116780
380-120002-8	FB: KA'AMILO WELLS	Total/NA	Water	533	116780
MBL 380-116780/20-A	Method Blank	Total/NA	Water	533	116780
LCS 380-116780/22-A	Lab Control Sample	Total/NA	Water	533	116780
MRL 380-116780/21-A	Lab Control Sample	Total/NA	Water	533	116780
380-119989-E-1-A MS	Matrix Spike	Total/NA	Water	533	116780
380-119989-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	116780

QC Association Summary

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

Job ID: 380-120002-1
 SDG: Weekly PFAS

LCMS

Prep Batch: 116951

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-120002-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Drinking Water	537.1 DW	
380-120002-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	537.1 DW	
380-120002-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP072)	Total/NA	Drinking Water	537.1 DW	
380-120002-4	KA'AMILO WELLS	Total/NA	Water	537.1 DW	
380-120002-5	FB: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Water	537.1 DW	
380-120002-6	FB: AIEA GULCH WELLS PUMP 2 (331-202-TPC072)	Total/NA	Water	537.1 DW	
380-120002-7	FB: AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP072)	Total/NA	Water	537.1 DW	
380-120002-8	FB: KA'AMILO WELLS	Total/NA	Water	537.1 DW	
MBL 380-116951/20-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-116951/22-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-116951/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-119999-B-1-A MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-119999-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Analysis Batch: 116979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-120002-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Drinking Water	537.1	116951
380-120002-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	537.1	116951
380-120002-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP072)	Total/NA	Drinking Water	537.1	116951
380-120002-4	KA'AMILO WELLS	Total/NA	Water	537.1	116951
380-120002-5	FB: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Water	537.1	116951
380-120002-6	FB: AIEA GULCH WELLS PUMP 2 (331-202-TPC072)	Total/NA	Water	537.1	116951
380-120002-7	FB: AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP072)	Total/NA	Water	537.1	116951
380-120002-8	FB: KA'AMILO WELLS	Total/NA	Water	537.1	116951
MBL 380-116951/20-A	Method Blank	Total/NA	Water	537.1	116951
LCS 380-116951/22-A	Lab Control Sample	Total/NA	Water	537.1	116951
MRL 380-116951/21-A	Lab Control Sample	Total/NA	Water	537.1	116951
380-119999-B-1-A MS	Matrix Spike	Total/NA	Water	537.1	116951
380-119999-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1	116951

Lab Chronicle

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-120002-1

Date Collected: 10/28/24 10:02

Matrix: Drinking Water

Date Received: 10/30/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			116533	XTD8	EA POM	10/31/24 06:15
Total/NA	Analysis	533		1	116785	SZ9R	EA POM	11/01/24 10:04
Total/NA	Prep	537.1 DW			116951	XTD8	EA POM	11/02/24 05:41
Total/NA	Analysis	537.1		1	116979	M7ML	EA POM	11/03/24 04:18

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

Lab Sample ID: 380-120002-2

Date Collected: 10/28/24 10:31

Matrix: Drinking Water

Date Received: 10/30/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			116780	XTD8	EA POM	11/01/24 06:41
Total/NA	Analysis	533		1	116921	Y5FM	EA POM	11/01/24 23:15
Total/NA	Prep	537.1 DW			116951	XTD8	EA POM	11/02/24 05:41
Total/NA	Analysis	537.1		1	116979	M7ML	EA POM	11/03/24 04:28

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

Lab Sample ID: 380-120002-3

Date Collected: 10/28/24 10:55

Matrix: Drinking Water

Date Received: 10/30/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			116780	XTD8	EA POM	11/01/24 06:41
Total/NA	Analysis	533		1	116921	Y5FM	EA POM	11/01/24 23:25
Total/NA	Prep	537.1 DW			116951	XTD8	EA POM	11/02/24 05:41
Total/NA	Analysis	537.1		1	116979	M7ML	EA POM	11/03/24 04:39

Client Sample ID: KA'AMILO WELLS

Lab Sample ID: 380-120002-4

Date Collected: 10/28/24 11:18

Matrix: Water

Date Received: 10/30/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			116780	XTD8	EA POM	11/01/24 06:41
Total/NA	Analysis	533		1	116921	Y5FM	EA POM	11/01/24 23:36
Total/NA	Prep	537.1 DW			116951	XTD8	EA POM	11/02/24 05:41
Total/NA	Analysis	537.1		1	116979	M7ML	EA POM	11/03/24 04:50

Lab Chronicle

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

Job ID: 380-120002-1
 SDG: Weekly PFAS

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

Lab Sample ID: 380-120002-5

Date Collected: 10/28/24 10:02

Matrix: Water

Date Received: 10/30/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			116780	XTD8	EA POM	11/01/24 06:41
Total/NA	Analysis	533		1	116921	Y5FM	EA POM	11/01/24 23:47
Total/NA	Prep	537.1 DW			116951	XTD8	EA POM	11/02/24 05:41
Total/NA	Analysis	537.1		1	116979	M7ML	EA POM	11/03/24 05:01

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

Lab Sample ID: 380-120002-6

Date Collected: 10/28/24 10:31

Matrix: Water

Date Received: 10/30/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			116780	XTD8	EA POM	11/01/24 06:41
Total/NA	Analysis	533		1	116921	Y5FM	EA POM	11/01/24 23:58
Total/NA	Prep	537.1 DW			116951	XTD8	EA POM	11/02/24 05:41
Total/NA	Analysis	537.1		1	116979	M7ML	EA POM	11/03/24 05:12

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

Lab Sample ID: 380-120002-7

Date Collected: 10/28/24 10:55

Matrix: Water

Date Received: 10/30/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			116780	XTD8	EA POM	11/01/24 06:41
Total/NA	Analysis	533		1	116921	Y5FM	EA POM	11/02/24 00:08
Total/NA	Prep	537.1 DW			116951	XTD8	EA POM	11/02/24 05:41
Total/NA	Analysis	537.1		1	116979	M7ML	EA POM	11/03/24 05:33

Client Sample ID: FB: KA'AMILO WELLS

Lab Sample ID: 380-120002-8

Date Collected: 10/28/24 11:18

Matrix: Water

Date Received: 10/30/24 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			116780	XTD8	EA POM	11/01/24 06:41
Total/NA	Analysis	533		1	116921	Y5FM	EA POM	11/02/24 00:19
Total/NA	Prep	537.1 DW			116951	XTD8	EA POM	11/02/24 05:41
Total/NA	Analysis	537.1		1	116979	M7ML	EA POM	11/03/24 05:44

Laboratory References:

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

Accreditation/Certification Summary

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

Job ID: 380-120002-1
SDG: Weekly PFAS

Laboratory: Eurofins Eaton Analytical Pomona

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

Authority	Program	Identification Number	Expiration Date
Hawaii	State	CA00006	01-31-25

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

Method Summary

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

Job ID: 380-120002-1
SDG: Weekly PFAS

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: 380-120002-1
 SDG: Weekly PFAS

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
380-120002-1	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	Drinking Water	10/28/24 10:02	10/30/24 09:35	HI0000331
380-120002-2	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Drinking Water	10/28/24 10:31	10/30/24 09:35	HI0000331
380-120002-3	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	Drinking Water	10/28/24 10:55	10/30/24 09:35	HI0000331
380-120002-4	KA'AMILO WELLS	Water	10/28/24 11:18	10/30/24 09:35	
380-120002-5	FB: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	Water	10/28/24 10:02	10/30/24 09:35	
380-120002-6	FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Water	10/28/24 10:31	10/30/24 09:35	
380-120002-7	FB: AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	Water	10/28/24 10:55	10/30/24 09:35	
380-120002-8	FB: KA'AMILO WELLS	Water	10/28/24 11:18	10/30/24 09:35	



Mona, 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 PII: Arada, Rachelle	Carrier Tracking No(s): 380-27941-2757 2	COC No: 380-27941-2757 2	
Client Contact: Dr Ron Fenstermacher		Phone: +1 808 748 5840	E-Mail: Rachelle.Arada@teuronisus.com	State of Origin:	Page: Page 2 of 2	
Company: City & County of Honolulu		PWSID		Job #:		
Address: 630 South Beretania Street, Chemistry Lab Honolulu HI, 96843		Due Date Requested: TAT Requested (days)		Preservation Codes:		
Phone: 808-748-5091 (tel)		Compliance Project: Δ No		M Hexane N None O AsNaO2 P Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T TSP Dodecaldehyde U Acetone V - MCAA W pH 4-5 Y - Trizma Z - other (specify)		
E-mail: rfenstermacher@hbws.org		FO #: C20525101 exp 05312023		Total Number of Containers		
Project Name: RED-HILL/HBWS sites Event Desc: RUSH Weekly Red Hill		WO #: 38001111		Special Instructions/Note		
Site:		SSOW#:		chlorinated		
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Gas, Other)	Special Instructions/Note
HALAWA WELLS UNITS 1&2 P1	28-Oct-2024	1002	G	Water		
AIEA GULCH WELLS PUMP 2	28-Oct-2024	1031	G	Water		
AIEA WELLS PUMPS 1&2 (260) PZ	28-Oct-2024	1055	G	Water		
KA'AMILO WELLS	28-Oct-2024	1118	G	Water		
FB HALAWA WELLS UNITS 1&2 P1	28-Oct-2024	1002				
FB AIEA GULCH WELLS PUMP 2	28-Oct-2024	1031				
FB AIEA WELLS PUMPS 1&2 (260) PZ	28-Oct-2024	1055				
FB KA'AMILO WELLS	28-Oct-2024	1118				
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		
Deliverable Requested I II III IV Other (specify)		Empty Kit Relinquished by		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For Months		
Date/Time: 29 Oct 2024 1400		Date/Time: 10/30/2024 09:35		Method of Shipment: FED EX 7796 0467 5580		
Company: HBWS		Company: G. RETNER		Company: BEAP		
Date/Time: 29 Oct 2024 1400		Date/Time: 10/30/2024 09:35		Company: BEAP		
Date/Time: 29 Oct 2024 1400		Date/Time: 10/30/2024 09:35		Company: BEAP		
Custody Seals Intact: Δ Yes Δ No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks: (351A) 1.1°-0.0° = 1.1° BEL FROZEN		



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-120002-1

SDG Number: Weekly PFAS

Login Number: 120002

List Source: Eurofins Eaton Analytical Pomona

List Number: 1

Creator: Gerfen, Chris

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

