

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

ANALYTICAL REPORT

PREPARED FOR

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

Generated 4/7/2025 7:14:07 PM

JOB DESCRIPTION

RED-HILL
Weekly PFAS

JOB NUMBER

380-143399-1

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



Generated
4/7/2025 7:14:07 PM

Authorized for release by
Rachelle Arada, Project Manager
Rachelle.Arada@et.eurofinsus.com
(626)386-1106



Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Action Limit Summary	15
Surrogate Summary	17
Isotope Dilution Summary	18
QC Sample Results	20
QC Association Summary	31
Lab Chronicle	32
Certification Summary	33
Method Summary	34
Sample Summary	35
Chain of Custody	36
Receipt Checklists	37

Definitions/Glossary

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

Job ID: 380-143399-1
SDG: Weekly PFAS

Qualifiers

LCMS

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Case Narrative

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

Job ID: 380-143399-1

Job ID: 380-143399-1

Eurofins Eaton Analytical Pomona

Job Narrative 380-143399-1

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 4/2/2025 9:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 7 coolers at receipt time were 1.4°C, 1.5°C, 1.8°C, 4.7°C, 4.8°C, 5.0°C and 5.4°C.

PFAS

Method 533 and 537.1 are two distinct methods for the analysis of PFAS in drinking water. The analyses are conducted on differing instrumentation, with calibrations, extraction solvents and sample preservatives being dissimilar among the two methods. Therefore it is probable and not unexpected to see the methods having slight variations in analytical results. Ka'amilo Wells (380-143399-2)

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

Detection Summary

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

Job ID: 380-143399-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-143399-1

No Detections.

Client Sample ID: Ka'amilo Wells
PWSID Number: HI0000331

Lab Sample ID: 380-143399-2

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)	2.5		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.7		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.4		2.0	ng/L	1		537.1	Total/NA

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

Lab Sample ID: 380-143399-3

No Detections.

Client Sample ID: FB Ka'amilo Wells
PWSID Number: HI0000331

Lab Sample ID: 380-143399-4

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-143399-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-143399-1

Date Collected: 03/31/25 11:14

Matrix: Drinking Water

Date Received: 04/02/25 09:20

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:46	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:46	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:46	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:46	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:46	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:46	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:46	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:46	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:46	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:46	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:46	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:46	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:46	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:46	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:46	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:46	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:46	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:46	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:46	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:46	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:46	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:46	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:46	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:46	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:46	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	68		50 - 200	04/03/25 13:21	04/04/25 18:46	1
13C6 PFDA	62		50 - 200	04/03/25 13:21	04/04/25 18:46	1
13C5 PFHxA	73		50 - 200	04/03/25 13:21	04/04/25 18:46	1
13C4 PFHpA	78		50 - 200	04/03/25 13:21	04/04/25 18:46	1
13C8 PFOA	68		50 - 200	04/03/25 13:21	04/04/25 18:46	1
13C9 PFNA	63		50 - 200	04/03/25 13:21	04/04/25 18:46	1
13C7 PFUnA	66		50 - 200	04/03/25 13:21	04/04/25 18:46	1
13C2 PFDoA	73		50 - 200	04/03/25 13:21	04/04/25 18:46	1
13C4 PFBA	89		50 - 200	04/03/25 13:21	04/04/25 18:46	1
13C5 PFPeA	88		50 - 200	04/03/25 13:21	04/04/25 18:46	1
13C3 PFBS	104		50 - 200	04/03/25 13:21	04/04/25 18:46	1
13C3 PFHxS	107		50 - 200	04/03/25 13:21	04/04/25 18:46	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-143399-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-143399-1

Date Collected: 03/31/25 11:14

Matrix: Drinking Water

Date Received: 04/02/25 09:20

PWSID Number: HI0000331

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	111		50 - 200	04/03/25 13:21	04/04/25 18:46	1
13C2-4:2-FTS	104		50 - 200	04/03/25 13:21	04/04/25 18:46	1
13C2-6:2-FTS	111		50 - 200	04/03/25 13:21	04/04/25 18:46	1
13C2-8:2-FTS	105		50 - 200	04/03/25 13:21	04/04/25 18:46	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		04/03/25 01:08	04/03/25 19:30	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:30	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:30	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:30	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:30	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:30	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:30	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:30	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:30	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:30	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:30	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:30	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:30	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:30	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:30	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:30	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:30	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	103		70 - 130	04/03/25 01:08	04/03/25 19:30	1
13C2 PFHxA	106		70 - 130	04/03/25 01:08	04/03/25 19:30	1
13C2 PFDA	99		70 - 130	04/03/25 01:08	04/03/25 19:30	1
13C3-GenX	92		70 - 130	04/03/25 01:08	04/03/25 19:30	1

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-143399-2

Date Collected: 03/31/25 11:53

Matrix: Water

Date Received: 04/02/25 09:20

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		04/03/25 13:21	04/04/25 18:56	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:56	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:56	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:56	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-143399-1
SDG: Weekly PFAS

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-143399-2

Date Collected: 03/31/25 11:53

Matrix: Water

Date Received: 04/02/25 09:20

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		04/03/25 13:21	04/04/25 18:56	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:56	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:56	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:56	1
Perfluorohexanesulfonic acid (PFHxS)	2.4		2.0	ng/L		04/03/25 13:21	04/04/25 18:56	1
Perfluorohexanoic acid (PFHxA)	2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:56	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:56	1
Perfluorooctanesulfonic acid (PFOS)	2.5		2.0	ng/L		04/03/25 13:21	04/04/25 18:56	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:56	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:56	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:56	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:56	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:56	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:56	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:56	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:56	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:56	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:56	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:56	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:56	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 18:56	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	76		50 - 200	04/03/25 13:21	04/04/25 18:56	1
13C6 PFDA	52		50 - 200	04/03/25 13:21	04/04/25 18:56	1
13C5 PFHxA	79		50 - 200	04/03/25 13:21	04/04/25 18:56	1
13C4 PFHpA	83		50 - 200	04/03/25 13:21	04/04/25 18:56	1
13C8 PFOA	71		50 - 200	04/03/25 13:21	04/04/25 18:56	1
13C9 PFNA	61		50 - 200	04/03/25 13:21	04/04/25 18:56	1
13C7 PFUnA	53		50 - 200	04/03/25 13:21	04/04/25 18:56	1
13C2 PFDoA	62		50 - 200	04/03/25 13:21	04/04/25 18:56	1
13C4 PFBA	93		50 - 200	04/03/25 13:21	04/04/25 18:56	1
13C5 PFPeA	90		50 - 200	04/03/25 13:21	04/04/25 18:56	1
13C3 PFBS	103		50 - 200	04/03/25 13:21	04/04/25 18:56	1
13C3 PFHxS	102		50 - 200	04/03/25 13:21	04/04/25 18:56	1
13C8 PFOS	108		50 - 200	04/03/25 13:21	04/04/25 18:56	1
13C2-4:2-FTS	99		50 - 200	04/03/25 13:21	04/04/25 18:56	1
13C2-6:2-FTS	106		50 - 200	04/03/25 13:21	04/04/25 18:56	1
13C2-8:2-FTS	102		50 - 200	04/03/25 13:21	04/04/25 18:56	1

Client Sample Results

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

Job ID: 380-143399-1
SDG: Weekly PFAS

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-143399-2

Date Collected: 03/31/25 11:53

Matrix: Water

Date Received: 04/02/25 09:20

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		04/03/25 01:08	04/03/25 19:39	1
Perfluorooctanesulfonic acid (PFOS)	2.7		2.0	ng/L		04/03/25 01:08	04/03/25 19:39	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:39	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:39	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:39	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:39	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:39	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:39	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:39	1
Perfluorohexanesulfonic acid (PFHxS)	2.4		2.0	ng/L		04/03/25 01:08	04/03/25 19:39	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:39	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:39	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:39	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:39	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:39	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:39	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:39	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	101		70 - 130			04/03/25 01:08	04/03/25 19:39	1
13C2 PFHxA	102		70 - 130			04/03/25 01:08	04/03/25 19:39	1
13C2 PFDA	99		70 - 130			04/03/25 01:08	04/03/25 19:39	1
13C3-GenX	91		70 - 130			04/03/25 01:08	04/03/25 19:39	1

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

Lab Sample ID: 380-143399-3

Date Collected: 03/31/25 11:14

Matrix: Water

Date Received: 04/02/25 09:20

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		04/03/25 13:21	04/04/25 19:06	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:06	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:06	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:06	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:06	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:06	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:06	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:06	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:06	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-143399-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-143399-3

Date Collected: 03/31/25 11:14

Matrix: Water

Date Received: 04/02/25 09:20

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
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:06	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:06	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:06	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:06	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:06	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:06	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:06	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:06	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:06	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:06	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:06	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:06	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:06	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:06	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:06	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:06	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	67		50 - 200			04/03/25 13:21	04/04/25 19:06	1
13C6 PFDA	90		50 - 200			04/03/25 13:21	04/04/25 19:06	1
13C5 PFHxA	75		50 - 200			04/03/25 13:21	04/04/25 19:06	1
13C4 PFHpA	84		50 - 200			04/03/25 13:21	04/04/25 19:06	1
13C8 PFOA	81		50 - 200			04/03/25 13:21	04/04/25 19:06	1
13C9 PFNA	86		50 - 200			04/03/25 13:21	04/04/25 19:06	1
13C7 PFUnA	89		50 - 200			04/03/25 13:21	04/04/25 19:06	1
13C2 PFDoA	92		50 - 200			04/03/25 13:21	04/04/25 19:06	1
13C4 PFBA	93		50 - 200			04/03/25 13:21	04/04/25 19:06	1
13C5 PFPeA	83		50 - 200			04/03/25 13:21	04/04/25 19:06	1
13C3 PFBS	107		50 - 200			04/03/25 13:21	04/04/25 19:06	1
13C3 PFHxS	109		50 - 200			04/03/25 13:21	04/04/25 19:06	1
13C8 PFOS	112		50 - 200			04/03/25 13:21	04/04/25 19:06	1
13C2-4:2-FTS	104		50 - 200			04/03/25 13:21	04/04/25 19:06	1
13C2-6:2-FTS	110		50 - 200			04/03/25 13:21	04/04/25 19:06	1
13C2-8:2-FTS	105		50 - 200			04/03/25 13:21	04/04/25 19:06	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		04/03/25 01:08	04/03/25 19:49	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:49	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:49	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:49	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-143399-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-143399-3

Date Collected: 03/31/25 11:14

Matrix: Water

Date Received: 04/02/25 09:20

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:49	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:49	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:49	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:49	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:49	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:49	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:49	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:49	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:49	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:49	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:49	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:49	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:49	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:49	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	102		70 - 130			04/03/25 01:08	04/03/25 19:49	1
13C2 PFHxA	105		70 - 130			04/03/25 01:08	04/03/25 19:49	1
13C2 PFDA	104		70 - 130			04/03/25 01:08	04/03/25 19:49	1
13C3-GenX	94		70 - 130			04/03/25 01:08	04/03/25 19:49	1

Client Sample ID: FB Ka'amilo Wells

Lab Sample ID: 380-143399-4

Date Collected: 03/31/25 11:53

Matrix: Water

Date Received: 04/02/25 09:20

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		04/03/25 13:21	04/04/25 19:15	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:15	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:15	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:15	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:15	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:15	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:15	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:15	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:15	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:15	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:15	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:15	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:15	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:15	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:15	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-143399-1
SDG: Weekly PFAS

Client Sample ID: FB Ka'amilo Wells

Lab Sample ID: 380-143399-4

Date Collected: 03/31/25 11:53

Matrix: Water

Date Received: 04/02/25 09:20

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:15	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:15	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:15	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:15	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:15	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:15	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:15	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:15	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:15	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		04/03/25 13:21	04/04/25 19:15	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	65		50 - 200	04/03/25 13:21	04/04/25 19:15	1
13C6 PFDA	69		50 - 200	04/03/25 13:21	04/04/25 19:15	1
13C5 PFHxA	72		50 - 200	04/03/25 13:21	04/04/25 19:15	1
13C4 PFHpA	77		50 - 200	04/03/25 13:21	04/04/25 19:15	1
13C8 PFOA	70		50 - 200	04/03/25 13:21	04/04/25 19:15	1
13C9 PFNA	70		50 - 200	04/03/25 13:21	04/04/25 19:15	1
13C7 PFUnA	66		50 - 200	04/03/25 13:21	04/04/25 19:15	1
13C2 PFDoA	70		50 - 200	04/03/25 13:21	04/04/25 19:15	1
13C4 PFBA	97		50 - 200	04/03/25 13:21	04/04/25 19:15	1
13C5 PFPeA	85		50 - 200	04/03/25 13:21	04/04/25 19:15	1
13C3 PFBS	109		50 - 200	04/03/25 13:21	04/04/25 19:15	1
13C3 PFHxS	109		50 - 200	04/03/25 13:21	04/04/25 19:15	1
13C8 PFOS	111		50 - 200	04/03/25 13:21	04/04/25 19:15	1
13C2-4:2-FTS	107		50 - 200	04/03/25 13:21	04/04/25 19:15	1
13C2-6:2-FTS	112		50 - 200	04/03/25 13:21	04/04/25 19:15	1
13C2-8:2-FTS	109		50 - 200	04/03/25 13:21	04/04/25 19:15	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		04/03/25 01:08	04/03/25 19:58	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:58	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:58	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:58	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:58	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:58	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:58	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:58	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:58	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:58	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-143399-1
SDG: Weekly PFAS

Client Sample ID: FB Ka'amilo Wells

Lab Sample ID: 380-143399-4

Date Collected: 03/31/25 11:53

Matrix: Water

Date Received: 04/02/25 09:20

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:58	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:58	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:58	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:58	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:58	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:58	1
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:58	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		04/03/25 01:08	04/03/25 19:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	103		70 - 130	04/03/25 01:08	04/03/25 19:58	1
13C2 PFHxA	107		70 - 130	04/03/25 01:08	04/03/25 19:58	1
13C2 PFDA	100		70 - 130	04/03/25 01:08	04/03/25 19:58	1
13C3-GenX	98		70 - 130	04/03/25 01:08	04/03/25 19:58	1

Action Limit Summary

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

Job ID: 380-143399-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-143399-1

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 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

Client Sample ID: Ka'amilo Wells
PWSID Number: HI0000331

Lab Sample ID: 380-143399-2

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 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)	2.4		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.5		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	533	Total/NA
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	537.1	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.7		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)	2.4		ng/L	10	2.0	537.1	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	537.1	Total/NA

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

Lab Sample ID: 380-143399-3

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 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

Eurofins Eaton Analytical Pomona

Action Limit Summary

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

Job ID: 380-143399-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-143399-3

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			
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 Ka'amilo Wells
PWSID Number: HI0000331

Lab Sample ID: 380-143399-4

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

Surrogate Summary

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

Job ID: 380-143399-1
 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)
380-143399-1	AIEA WELLS PUMPS 1&2 (260)	103	106	99	92

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)
380-143399-2	Ka'amilo Wells	101	102	99	91
380-143399-3	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	102	105	104	94
380-143399-4	FB Ka'amilo Wells	103	107	100	98
380-143405-B-1-A MS	Matrix Spike	102	102	99	76
380-143405-C-1-A MSD	Matrix Spike Duplicate	101	101	100	77
LCS 380-145166/30-A	Lab Control Sample	96	100	100	72
MBL 380-145166/28-A	Method Blank	100	106	107	76
MRL 380-145166/29-A	Lab Control Sample	101	106	103	76

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

Isotope Dilution Summary

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

Job ID: 380-143399-1
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)
380-143399-1	AIEA WELLS PUMPS 1&2 (260)	68	62	73	78	68	63	66	73

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)
380-143399-1	AIEA WELLS PUMPS 1&2 (260)	89	88	104	107	111	104	111	105

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)
380-143381-E-1-A MS	Matrix Spike	85	106	94	104	101	105	100	102
380-143381-F-1-A MSD	Matrix Spike Duplicate	84	105	94	106	99	102	100	102
380-143399-2	Ka'amilo Wells	76	52	79	83	71	61	53	62
380-143399-3	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	67	90	75	84	81	86	89	92
380-143399-4	FB Ka'amilo Wells	65	69	72	77	70	70	66	70
LCS 380-145257/22-A	Lab Control Sample	61	76	69	71	68	72	76	82
MBL 380-145257/20-A	Method Blank	62	64	69	73	69	68	57	62
MRL 380-145257/21-A	Lab Control Sample	63	67	70	73	68	68	62	70

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)
380-143381-E-1-A MS	Matrix Spike	105	100	100	102	106	103	106	104
380-143381-F-1-A MSD	Matrix Spike Duplicate	104	102	100	101	104	98	105	103
380-143399-2	Ka'amilo Wells	93	90	103	102	108	99	106	102
380-143399-3	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	93	83	107	109	112	104	110	105
380-143399-4	FB Ka'amilo Wells	97	85	109	109	111	107	112	109
LCS 380-145257/22-A	Lab Control Sample	93	81	101	103	105	100	105	102
MBL 380-145257/20-A	Method Blank	88	78	99	100	102	97	103	99

Isotope Dilution Summary

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

Job ID: 380-143399-1
 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	PFBA (50-200)	PFPeA (50-200)	C3PFBS (50-200)	C3PFHS (50-200)	C8PFOS (50-200)	42FTS (50-200)	62FTS (50-200)	82FTS (50-200)
MRL 380-145257/21-A	Lab Control Sample	90	80	103	104	104	100	104	101

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: 380-143399-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-145257/20-A
Matrix: Water
Analysis Batch: 145458

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 145257

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		04/03/25 13:21	04/04/25 15:19	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		04/03/25 13:21	04/04/25 15:19	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		04/03/25 13:21	04/04/25 15:19	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		04/03/25 13:21	04/04/25 15:19	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		04/03/25 13:21	04/04/25 15:19	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		04/03/25 13:21	04/04/25 15:19	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		04/03/25 13:21	04/04/25 15:19	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		04/03/25 13:21	04/04/25 15:19	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		04/03/25 13:21	04/04/25 15:19	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		04/03/25 13:21	04/04/25 15:19	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		04/03/25 13:21	04/04/25 15:19	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		04/03/25 13:21	04/04/25 15:19	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		04/03/25 13:21	04/04/25 15:19	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		04/03/25 13:21	04/04/25 15:19	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		04/03/25 13:21	04/04/25 15:19	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		04/03/25 13:21	04/04/25 15:19	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		04/03/25 13:21	04/04/25 15:19	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		04/03/25 13:21	04/04/25 15:19	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		04/03/25 13:21	04/04/25 15:19	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		04/03/25 13:21	04/04/25 15:19	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		04/03/25 13:21	04/04/25 15:19	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		04/03/25 13:21	04/04/25 15:19	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		04/03/25 13:21	04/04/25 15:19	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		04/03/25 13:21	04/04/25 15:19	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		04/03/25 13:21	04/04/25 15:19	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	62		50 - 200	04/03/25 13:21	04/04/25 15:19	1
13C6 PFDA	64		50 - 200	04/03/25 13:21	04/04/25 15:19	1
13C5 PFHxA	69		50 - 200	04/03/25 13:21	04/04/25 15:19	1
13C4 PFHpA	73		50 - 200	04/03/25 13:21	04/04/25 15:19	1
13C8 PFOA	69		50 - 200	04/03/25 13:21	04/04/25 15:19	1
13C9 PFNA	68		50 - 200	04/03/25 13:21	04/04/25 15:19	1
13C7 PFUnA	57		50 - 200	04/03/25 13:21	04/04/25 15:19	1
13C2 PFDoA	62		50 - 200	04/03/25 13:21	04/04/25 15:19	1
13C4 PFBA	88		50 - 200	04/03/25 13:21	04/04/25 15:19	1
13C5 PFPeA	78		50 - 200	04/03/25 13:21	04/04/25 15:19	1
13C3 PFBS	99		50 - 200	04/03/25 13:21	04/04/25 15:19	1
13C3 PFHxS	100		50 - 200	04/03/25 13:21	04/04/25 15:19	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-143399-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-145257/20-A
Matrix: Water
Analysis Batch: 145458

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 145257

<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	102		50 - 200	04/03/25 13:21	04/04/25 15:19	1
13C2-4:2-FTS	97		50 - 200	04/03/25 13:21	04/04/25 15:19	1
13C2-6:2-FTS	103		50 - 200	04/03/25 13:21	04/04/25 15:19	1
13C2-8:2-FTS	99		50 - 200	04/03/25 13:21	04/04/25 15:19	1

Lab Sample ID: LCS 380-145257/22-A
Matrix: Water
Analysis Batch: 145458

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 145257

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	120	107		ng/L		89	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	120	111		ng/L		92	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	120	104		ng/L		87	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	120	113		ng/L		94	70 - 130
Perfluorobutanesulfonic acid (PFBS)	120	115		ng/L		95	70 - 130
Perfluorodecanoic acid (PFDA)	120	115		ng/L		95	70 - 130
Perfluorododecanoic acid (PFDoA)	120	115		ng/L		95	70 - 130
Perfluoroheptanoic acid (PFHpA)	120	111		ng/L		92	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	120	117		ng/L		97	70 - 130
Perfluorohexanoic acid (PFHxA)	120	112		ng/L		93	70 - 130
Perfluorononanoic acid (PFNA)	120	116		ng/L		96	70 - 130
Perfluorooctanesulfonic acid (PFOS)	120	114		ng/L		94	70 - 130
Perfluorooctanoic acid (PFOA)	120	119		ng/L		99	70 - 130
Perfluoroundecanoic acid (PFUnA)	120	115		ng/L		96	70 - 130
Perfluorobutanoic acid (PFBA)	120	117		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	120	118		ng/L		98	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	120	122		ng/L		101	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	120	117		ng/L		97	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	120	123		ng/L		102	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	120	111		ng/L		92	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	120	110		ng/L		91	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	120	111		ng/L		92	70 - 130
Perfluoropentanoic acid (PFPeA)	120	116		ng/L		96	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	120	113		ng/L		94	70 - 130

QC Sample Results

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

Job ID: 380-143399-1
SDG: Weekly PFAS

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

Lab Sample ID: LCS 380-145257/22-A
Matrix: Water
Analysis Batch: 145458

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 145257

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	120	112		ng/L		93	70 - 130
LCS LCS							
Isotope Dilution	%Recovery	Qualifier	Limits				
13C3 HFPO-DA	61		50 - 200				
13C6 PFDA	76		50 - 200				
13C5 PFHxA	69		50 - 200				
13C4 PFHpA	71		50 - 200				
13C8 PFOA	68		50 - 200				
13C9 PFNA	72		50 - 200				
13C7 PFUnA	76		50 - 200				
13C2 PFDoA	82		50 - 200				
13C4 PFBA	93		50 - 200				
13C5 PFPeA	81		50 - 200				
13C3 PFBS	101		50 - 200				
13C3 PFHxS	103		50 - 200				
13C8 PFOS	105		50 - 200				
13C2-4:2-FTS	100		50 - 200				
13C2-6:2-FTS	105		50 - 200				
13C2-8:2-FTS	102		50 - 200				

Lab Sample ID: MRL 380-145257/21-A
Matrix: Water
Analysis Batch: 145458

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 145257

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.96	J	ng/L		98	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	2.00	J	ng/L		99	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	1.88	J	ng/L		93	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.12	J	ng/L		105	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.02	J	ng/L		101	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.02	J	ng/L		100	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.06	J	ng/L		102	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.08	J	ng/L		104	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.02	J	ng/L		101	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.03	J	ng/L		101	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.06	J	ng/L		103	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	1.97	J	ng/L		98	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.17	J	ng/L		108	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.24	J	ng/L		112	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	2.35	J	ng/L		117	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-143399-1
SDG: Weekly PFAS

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

Lab Sample ID: MRL 380-145257/21-A
Matrix: Water
Analysis Batch: 145458

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 145257

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	2.15	J	ng/L		107	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	2.14	J	ng/L		107	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	2.60	J	ng/L		130	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	2.14	J	ng/L		107	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.01	1.94	J	ng/L		97	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	1.88	J	ng/L		94	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	1.98	J	ng/L		98	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	2.06	J	ng/L		103	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.01	1.91	J	ng/L		95	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	1.95	J	ng/L		97	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	63		50 - 200
13C6 PFDA	67		50 - 200
13C5 PFHxA	70		50 - 200
13C4 PFHpA	73		50 - 200
13C8 PFOA	68		50 - 200
13C9 PFNA	68		50 - 200
13C7 PFUnA	62		50 - 200
13C2 PFDoA	70		50 - 200
13C4 PFBA	90		50 - 200
13C5 PFPeA	80		50 - 200
13C3 PFBS	103		50 - 200
13C3 PFHxS	104		50 - 200
13C8 PFOS	104		50 - 200
13C2-4:2-FTS	100		50 - 200
13C2-6:2-FTS	104		50 - 200
13C2-8:2-FTS	101		50 - 200

Lab Sample ID: 380-143381-E-1-A MS
Matrix: Water
Analysis Batch: 145458

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 145257

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		120	108		ng/L		90	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		120	110		ng/L		91	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		120	112		ng/L		93	70 - 130

QC Sample Results

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

Job ID: 380-143399-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-143381-E-1-A MS
Matrix: Water
Analysis Batch: 145458

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 145257

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	<2.0		120	113		ng/L		94	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorobutanesulfonic acid (PFBS)	<2.0		120	116		ng/L		96	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		120	113		ng/L		93	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		120	115		ng/L		95	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		120	113		ng/L		94	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		120	116		ng/L		96	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		120	112		ng/L		92	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		120	115		ng/L		95	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		120	115		ng/L		95	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		120	119		ng/L		99	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		120	119		ng/L		99	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		120	114		ng/L		95	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		120	119		ng/L		99	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		120	115		ng/L		95	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		120	120		ng/L		100	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		120	112		ng/L		93	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		120	112		ng/L		93	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		120	112		ng/L		93	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		120	118		ng/L		98	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		120	118		ng/L		97	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		120	113		ng/L		94	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		120	113		ng/L		93	70 - 130

Isotope Dilution	MS MS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	85		50 - 200
13C6 PFDA	106		50 - 200
13C5 PFHxA	94		50 - 200
13C4 PFHpA	104		50 - 200
13C8 PFOA	101		50 - 200
13C9 PFNA	105		50 - 200
13C7 PFUnA	100		50 - 200
13C2 PFDoA	102		50 - 200
13C4 PFBA	105		50 - 200
13C5 PFPeA	100		50 - 200
13C3 PFBS	100		50 - 200
13C3 PFHxS	102		50 - 200
13C8 PFOS	106		50 - 200

QC Sample Results

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

Job ID: 380-143399-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-143381-E-1-A MS
Matrix: Water
Analysis Batch: 145458

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 145257

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
13C2-4:2-FTS	103		50 - 200
13C2-6:2-FTS	106		50 - 200
13C2-8:2-FTS	104		50 - 200

Lab Sample ID: 380-143381-F-1-A MSD
Matrix: Water
Analysis Batch: 145458

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 145257

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		120	109		ng/L		91	70 - 130	1	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		120	112		ng/L		93	70 - 130	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		120	108		ng/L		89	70 - 130	4	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		120	111		ng/L		92	70 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		120	115		ng/L		95	70 - 130	1	30
Perfluorodecanoic acid (PFDA)	<2.0		120	113		ng/L		93	70 - 130	0	30
Perfluorododecanoic acid (PFDoA)	<2.0		120	114		ng/L		95	70 - 130	1	30
Perfluoroheptanoic acid (PFHpA)	<2.0		120	108		ng/L		90	70 - 130	4	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		120	116		ng/L		96	70 - 130	0	30
Perfluorohexanoic acid (PFHxA)	<2.0		120	112		ng/L		92	70 - 130	0	30
Perfluorononanoic acid (PFNA)	<2.0		120	116		ng/L		96	70 - 130	1	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		120	115		ng/L		95	70 - 130	0	30
Perfluorooctanoic acid (PFOA)	<2.0		120	121		ng/L		101	70 - 130	2	30
Perfluoroundecanoic acid (PFUnA)	<2.0		120	118		ng/L		98	70 - 130	1	30
Perfluorobutanoic acid (PFBA)	<2.0		120	117		ng/L		97	70 - 130	2	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		120	119		ng/L		99	70 - 130	0	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		120	119		ng/L		99	70 - 130	4	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		120	119		ng/L		99	70 - 130	1	30
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		120	126		ng/L		105	70 - 130	12	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		120	111		ng/L		92	70 - 130	1	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		120	114		ng/L		95	70 - 130	2	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		120	115		ng/L		95	70 - 130	2	30
Perfluoropentanoic acid (PFPeA)	<2.0		120	117		ng/L		96	70 - 130	1	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		120	114		ng/L		95	70 - 130	1	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		120	112		ng/L		93	70 - 130	1	30

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-143399-1
SDG: Weekly PFAS

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

Isotope Dilution	MSD MSD		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	84		50 - 200
13C6 PFDA	105		50 - 200
13C5 PFHxA	94		50 - 200
13C4 PFHpA	106		50 - 200
13C8 PFOA	99		50 - 200
13C9 PFNA	102		50 - 200
13C7 PFUnA	100		50 - 200
13C2 PFDoA	102		50 - 200
13C4 PFBA	104		50 - 200
13C5 PFPeA	102		50 - 200
13C3 PFBS	100		50 - 200
13C3 PFHxS	101		50 - 200
13C8 PFOS	104		50 - 200
13C2-4:2-FTS	98		50 - 200
13C2-6:2-FTS	105		50 - 200
13C2-8:2-FTS	103		50 - 200

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

Lab Sample ID: MBL 380-145166/28-A
Matrix: Water
Analysis Batch: 145225

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 145166

Analyte	MBL MBL		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		04/03/25 01:08	04/03/25 15:20	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		04/03/25 01:08	04/03/25 15:20	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		04/03/25 01:08	04/03/25 15:20	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		04/03/25 01:08	04/03/25 15:20	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		04/03/25 01:08	04/03/25 15:20	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		04/03/25 01:08	04/03/25 15:20	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		04/03/25 01:08	04/03/25 15:20	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		04/03/25 01:08	04/03/25 15:20	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		04/03/25 01:08	04/03/25 15:20	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		04/03/25 01:08	04/03/25 15:20	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		04/03/25 01:08	04/03/25 15:20	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		04/03/25 01:08	04/03/25 15:20	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		04/03/25 01:08	04/03/25 15:20	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		04/03/25 01:08	04/03/25 15:20	1
Perfluorotridecanoic acid (PFTrDA)	<0.36		2.0	ng/L		04/03/25 01:08	04/03/25 15:20	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		04/03/25 01:08	04/03/25 15:20	1
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		04/03/25 01:08	04/03/25 15:20	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		04/03/25 01:08	04/03/25 15:20	1
Surrogate	MBL MBL		Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
d5-NEtFOSAA	100		70 - 130			04/03/25 01:08	04/03/25 15:20	1
13C2 PFHxA	106		70 - 130			04/03/25 01:08	04/03/25 15:20	1
13C2 PFDA	107		70 - 130			04/03/25 01:08	04/03/25 15:20	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-143399-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-145166/28-A
Matrix: Water
Analysis Batch: 145225

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 145166

Surrogate	MBL MBL		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C3-GenX	76		70 - 130	04/03/25 01:08	04/03/25 15:20	1

Lab Sample ID: LCS 380-145166/30-A
Matrix: Water
Analysis Batch: 145225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 145166

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	25.0	18.5		ng/L		74	70 - 130
Perfluorooctanesulfonic acid (PFOS)	25.0	26.1		ng/L		105	70 - 130
Perfluoroundecanoic acid (PFUnA)	25.0	24.8		ng/L		99	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.0	24.6		ng/L		98	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.0	23.1		ng/L		93	70 - 130
Perfluorohexanoic acid (PFHxA)	25.0	30.2		ng/L		121	70 - 130
Perfluorododecanoic acid (PFDoA)	25.0	25.3		ng/L		101	70 - 130
Perfluorooctanoic acid (PFOA)	25.0	24.1		ng/L		96	70 - 130
Perfluorodecanoic acid (PFDA)	25.0	24.7		ng/L		99	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	25.0	27.1		ng/L		108	70 - 130
Perfluorobutanesulfonic acid (PFBS)	25.0	25.4		ng/L		101	70 - 130
Perfluoroheptanoic acid (PFHpA)	25.0	25.6		ng/L		102	70 - 130
Perfluorononanoic acid (PFNA)	25.0	25.4		ng/L		102	70 - 130
Perfluorotetradecanoic acid (PFTA)	25.0	22.6		ng/L		90	70 - 130
Perfluorotridecanoic acid (PFTrDA)	25.0	23.0		ng/L		92	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	25.0	25.9		ng/L		104	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	25.0	24.4		ng/L		97	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	25.0	23.4		ng/L		94	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
d5-NEtFOSAA	96		70 - 130
13C2 PFHxA	100		70 - 130
13C2 PFDA	100		70 - 130
13C3-GenX	72		70 - 130

QC Sample Results

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

Job ID: 380-143399-1
SDG: Weekly PFAS

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

Lab Sample ID: MRL 380-145166/29-A
Matrix: Water
Analysis Batch: 145225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 145166

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	1.63	J	ng/L		81	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.32	J	ng/L		116	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.19	J	ng/L		110	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	2.23	J	ng/L		111	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	2.15	J	ng/L		107	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	1.84	J	ng/L		92	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.18	J	ng/L		109	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.13	J	ng/L		106	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.17	J	ng/L		108	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.27	J	ng/L		113	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.07	J	ng/L		103	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.29	J	ng/L		114	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.12	J	ng/L		106	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.00	2.11	J	ng/L		105	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.00	2.03	J	ng/L		102	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	2.00	2.12	J	ng/L		106	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	1.98	J	ng/L		99	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	2.17	J	ng/L		108	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
d5-NEtFOSAA	101		70 - 130
13C2 PFHxA	106		70 - 130
13C2 PFDA	103		70 - 130
13C3-GenX	76		70 - 130

Lab Sample ID: 380-143405-B-1-A MS
Matrix: Water
Analysis Batch: 145225

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 145166

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		25.1	19.4		ng/L		77	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		25.1	26.1		ng/L		97	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		25.1	24.6		ng/L		98	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.1	25.2		ng/L		101	70 - 130

Eurofins Eaton Analytical Pomona

QC Association Summary

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

Job ID: 380-143399-1
SDG: Weekly PFAS

LCMS

Prep Batch: 145166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143399-1	AIEA WELLS PUMPS 1&2 (260) (331-203-TP40C	Total/NA	Drinking Water	537.1 DW	
380-143399-2	Ka'amilo Wells	Total/NA	Water	537.1 DW	
380-143399-3	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP	Total/NA	Water	537.1 DW	
380-143399-4	FB Ka'amilo Wells	Total/NA	Water	537.1 DW	
MBL 380-145166/28-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-145166/30-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-145166/29-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-143405-B-1-A MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-143405-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Analysis Batch: 145225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143399-1	AIEA WELLS PUMPS 1&2 (260) (331-203-TP40C	Total/NA	Drinking Water	537.1	145166
380-143399-2	Ka'amilo Wells	Total/NA	Water	537.1	145166
380-143399-3	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP	Total/NA	Water	537.1	145166
380-143399-4	FB Ka'amilo Wells	Total/NA	Water	537.1	145166
MBL 380-145166/28-A	Method Blank	Total/NA	Water	537.1	145166
LCS 380-145166/30-A	Lab Control Sample	Total/NA	Water	537.1	145166
MRL 380-145166/29-A	Lab Control Sample	Total/NA	Water	537.1	145166
380-143405-B-1-A MS	Matrix Spike	Total/NA	Water	537.1	145166
380-143405-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1	145166

Prep Batch: 145257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143399-1	AIEA WELLS PUMPS 1&2 (260) (331-203-TP40C	Total/NA	Drinking Water	533	
380-143399-2	Ka'amilo Wells	Total/NA	Water	533	
380-143399-3	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP	Total/NA	Water	533	
380-143399-4	FB Ka'amilo Wells	Total/NA	Water	533	
MBL 380-145257/20-A	Method Blank	Total/NA	Water	533	
LCS 380-145257/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-145257/21-A	Lab Control Sample	Total/NA	Water	533	
380-143381-E-1-A MS	Matrix Spike	Total/NA	Water	533	
380-143381-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 145458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-143399-1	AIEA WELLS PUMPS 1&2 (260) (331-203-TP40C	Total/NA	Drinking Water	533	145257
380-143399-2	Ka'amilo Wells	Total/NA	Water	533	145257
380-143399-3	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP	Total/NA	Water	533	145257
380-143399-4	FB Ka'amilo Wells	Total/NA	Water	533	145257
MBL 380-145257/20-A	Method Blank	Total/NA	Water	533	145257
LCS 380-145257/22-A	Lab Control Sample	Total/NA	Water	533	145257
MRL 380-145257/21-A	Lab Control Sample	Total/NA	Water	533	145257
380-143381-E-1-A MS	Matrix Spike	Total/NA	Water	533	145257
380-143381-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	145257

Lab Chronicle

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

Job ID: 380-143399-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-143399-1

Date Collected: 03/31/25 11:14

Matrix: Drinking Water

Date Received: 04/02/25 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			145257	HM3M	EA POM	04/03/25 13:21
Total/NA	Analysis	533		1	145458	Y5FM	EA POM	04/04/25 18:46
Total/NA	Prep	537.1 DW			145166	G9MN	EA POM	04/03/25 01:08
Total/NA	Analysis	537.1		1	145225	Y5FM	EA POM	04/03/25 19:30

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-143399-2

Date Collected: 03/31/25 11:53

Matrix: Water

Date Received: 04/02/25 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			145257	HM3M	EA POM	04/03/25 13:21
Total/NA	Analysis	533		1	145458	Y5FM	EA POM	04/04/25 18:56
Total/NA	Prep	537.1 DW			145166	G9MN	EA POM	04/03/25 01:08
Total/NA	Analysis	537.1		1	145225	Y5FM	EA POM	04/03/25 19:39

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

Lab Sample ID: 380-143399-3

Date Collected: 03/31/25 11:14

Matrix: Water

Date Received: 04/02/25 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			145257	HM3M	EA POM	04/03/25 13:21
Total/NA	Analysis	533		1	145458	Y5FM	EA POM	04/04/25 19:06
Total/NA	Prep	537.1 DW			145166	G9MN	EA POM	04/03/25 01:08
Total/NA	Analysis	537.1		1	145225	Y5FM	EA POM	04/03/25 19:49

Client Sample ID: FB Ka'amilo Wells

Lab Sample ID: 380-143399-4

Date Collected: 03/31/25 11:53

Matrix: Water

Date Received: 04/02/25 09:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			145257	HM3M	EA POM	04/03/25 13:21
Total/NA	Analysis	533		1	145458	Y5FM	EA POM	04/04/25 19:15
Total/NA	Prep	537.1 DW			145166	G9MN	EA POM	04/03/25 01:08
Total/NA	Analysis	537.1		1	145225	Y5FM	EA POM	04/03/25 19:58

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: 380-143399-1
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

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

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

Job ID: 380-143399-1
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: 380-143399-1
SDG: Weekly PFAS

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
380-143399-1	AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	Drinking Water	03/31/25 11:14	04/02/25 09:20	HI0000331
380-143399-2	Ka'amilo Wells	Water	03/31/25 11:53	04/02/25 09:20	HI0000331
380-143399-3	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	Water	03/31/25 11:14	04/02/25 09:20	HI0000331
380-143399-4	FB Ka'amilo Wells	Water	03/31/25 11:53	04/02/25 09:20	HI0000331

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

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-143399-1

SDG Number: Weekly PFAS

Login Number: 143399

List Number: 1

Creator: Ngo, Theodore

List Source: Eurofins Eaton Analytical Pomona

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