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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Erwin Kawata
City & County of Honolulu
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JOB DESCRIPTION

RED-HILL
Weekly PFAS

JOB NUMBER

380-140209-1

Eurofins Eaton Analytical Pomona

Job Notes

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

Compliance Statement

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

Authorization



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Definitions/Glossary

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

Job ID: 380-140209-1
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: 380-140209-1

Job ID: 380-140209-1

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Job Narrative 380-140209-1

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 3/12/2025 9:52 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 1.3°C.

PFAS

EPA 537.1 and EPA 533 are two distinct methods for the analysis of PFAS in drinking water. The analyses are conducted on differing instrumentation, with calibrations, extraction solvents and sample preservatives being dissimilar among the two methods. Therefore it is probable and not unexpected to see the methods having slight variations in analytical results. Ka'amilo Wells (380-140209-2)

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: 380-140209-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-140209-1

No Detections.

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-140209-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	2.3		2.0	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	2.0		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.7		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.8		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanoic acid (PFHxA)	2.0		2.0	ng/L	1		537.1	Total/NA
Perfluorooctanoic acid (PFOA)	2.1		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.9		2.0	ng/L	1		537.1	Total/NA

Client Sample ID: FB Aiea Wells Pumps 1&2 (260)

Lab Sample ID: 380-140209-3

No Detections.

Client Sample ID: FB Ka'amilo Wells

Lab Sample ID: 380-140209-4

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: 380-140209-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-140209-1

Date Collected: 03/10/25 11:14

Matrix: Water

Date Received: 03/12/25 09:52

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		03/13/25 07:24	03/14/25 03:54	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 03:54	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 03:54	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 03:54	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 03:54	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 03:54	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 03:54	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 03:54	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 03:54	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 03:54	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 03:54	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 03:54	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 03:54	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 03:54	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 03:54	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 03:54	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 03:54	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 03:54	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 03:54	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 03:54	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 03:54	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 03:54	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 03:54	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 03:54	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 03:54	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	88		50 - 200	03/13/25 07:24	03/14/25 03:54	1
13C6 PFDA	101		50 - 200	03/13/25 07:24	03/14/25 03:54	1
13C5 PFHxA	94		50 - 200	03/13/25 07:24	03/14/25 03:54	1
13C4 PFHpA	94		50 - 200	03/13/25 07:24	03/14/25 03:54	1
13C8 PFOA	94		50 - 200	03/13/25 07:24	03/14/25 03:54	1
13C9 PFNA	100		50 - 200	03/13/25 07:24	03/14/25 03:54	1
13C7 PFUnA	103		50 - 200	03/13/25 07:24	03/14/25 03:54	1
13C2 PFDoA	101		50 - 200	03/13/25 07:24	03/14/25 03:54	1
13C4 PFBA	97		50 - 200	03/13/25 07:24	03/14/25 03:54	1
13C5 PFPeA	95		50 - 200	03/13/25 07:24	03/14/25 03:54	1
13C3 PFBS	106		50 - 200	03/13/25 07:24	03/14/25 03:54	1
13C3 PFHxS	103		50 - 200	03/13/25 07:24	03/14/25 03:54	1
13C8 PFOS	110		50 - 200	03/13/25 07:24	03/14/25 03:54	1

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Client Sample Results

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

Job ID: 380-140209-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-140209-1

Date Collected: 03/10/25 11:14

Matrix: Water

Date Received: 03/12/25 09:52

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2-4:2-FTS	135		50 - 200	03/13/25 07:24	03/14/25 03:54	1
13C2-6:2-FTS	118		50 - 200	03/13/25 07:24	03/14/25 03:54	1
13C2-8:2-FTS	113		50 - 200	03/13/25 07:24	03/14/25 03:54	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:48	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:48	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:48	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:48	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:48	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:48	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:48	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:48	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:48	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:48	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:48	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:48	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:48	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:48	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:48	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:48	1
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:48	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:48	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac		
d5-NEtFOSAA	105		70 - 130	03/13/25 12:47	03/14/25 09:48	1		
13C2 PFHxA	110		70 - 130	03/13/25 12:47	03/14/25 09:48	1		
13C2 PFDA	109		70 - 130	03/13/25 12:47	03/14/25 09:48	1		
13C3-GenX	104		70 - 130	03/13/25 12:47	03/14/25 09:48	1		

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-140209-2

Date Collected: 03/10/25 11:39

Matrix: Water

Date Received: 03/12/25 09:52

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		03/13/25 07:24	03/14/25 04:03	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:03	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:03	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:03	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:03	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:03	1

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Client Sample Results

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

Job ID: 380-140209-1
SDG: Weekly PFAS

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-140209-2

Date Collected: 03/10/25 11:39

Matrix: Water

Date Received: 03/12/25 09:52

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:03	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:03	1
Perfluorohexanesulfonic acid (PFHxS)	2.3		2.0	ng/L		03/13/25 07:24	03/14/25 04:03	1
Perfluorohexanoic acid (PFHxA)	2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:03	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:03	1
Perfluorooctanesulfonic acid (PFOS)	2.7		2.0	ng/L		03/13/25 07:24	03/14/25 04:03	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:03	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:03	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:03	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:03	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:03	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:03	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:03	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:03	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:03	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:03	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:03	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:03	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:03	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	87		50 - 200	03/13/25 07:24	03/14/25 04:03	1
13C6 PFDA	90		50 - 200	03/13/25 07:24	03/14/25 04:03	1
13C5 PFHxA	92		50 - 200	03/13/25 07:24	03/14/25 04:03	1
13C4 PFHpA	90		50 - 200	03/13/25 07:24	03/14/25 04:03	1
13C8 PFOA	86		50 - 200	03/13/25 07:24	03/14/25 04:03	1
13C9 PFNA	88		50 - 200	03/13/25 07:24	03/14/25 04:03	1
13C7 PFUnA	92		50 - 200	03/13/25 07:24	03/14/25 04:03	1
13C2 PFDoA	90		50 - 200	03/13/25 07:24	03/14/25 04:03	1
13C4 PFBA	100		50 - 200	03/13/25 07:24	03/14/25 04:03	1
13C5 PFPeA	100		50 - 200	03/13/25 07:24	03/14/25 04:03	1
13C3 PFBS	108		50 - 200	03/13/25 07:24	03/14/25 04:03	1
13C3 PFHxS	106		50 - 200	03/13/25 07:24	03/14/25 04:03	1
13C8 PFOS	110		50 - 200	03/13/25 07:24	03/14/25 04:03	1
13C2-4:2-FTS	128		50 - 200	03/13/25 07:24	03/14/25 04:03	1
13C2-6:2-FTS	120		50 - 200	03/13/25 07:24	03/14/25 04:03	1
13C2-8:2-FTS	110		50 - 200	03/13/25 07:24	03/14/25 04:03	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		03/13/25 12:47	03/14/25 09:57	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-140209-1
SDG: Weekly PFAS

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-140209-2

Date Collected: 03/10/25 11:39

Matrix: Water

Date Received: 03/12/25 09:52

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	2.8		2.0	ng/L		03/13/25 12:47	03/14/25 09:57	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:57	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:57	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:57	1
Perfluorohexanoic acid (PFHxA)	2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:57	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:57	1
Perfluorooctanoic acid (PFOA)	2.1		2.0	ng/L		03/13/25 12:47	03/14/25 09:57	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:57	1
Perfluorohexanesulfonic acid (PFHxS)	2.9		2.0	ng/L		03/13/25 12:47	03/14/25 09:57	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:57	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:57	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:57	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:57	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:57	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:57	1
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:57	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 09:57	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	103		70 - 130			03/13/25 12:47	03/14/25 09:57	1
13C2 PFHxA	111		70 - 130			03/13/25 12:47	03/14/25 09:57	1
13C2 PFDA	114		70 - 130			03/13/25 12:47	03/14/25 09:57	1
13C3-GenX	103		70 - 130			03/13/25 12:47	03/14/25 09:57	1

Client Sample ID: FB Aiea Wells Pumps 1&2 (260)

Lab Sample ID: 380-140209-3

Date Collected: 03/10/25 11:14

Matrix: Water

Date Received: 03/12/25 09:52

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		03/13/25 07:24	03/14/25 04:24	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:24	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:24	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:24	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:24	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:24	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:24	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:24	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:24	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:24	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:24	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:24	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-140209-1
SDG: Weekly PFAS

Client Sample ID: FB Aiea Wells Pumps 1&2 (260)

Lab Sample ID: 380-140209-3

Date Collected: 03/10/25 11:14

Matrix: Water

Date Received: 03/12/25 09:52

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:24	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:24	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:24	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:24	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:24	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:24	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:24	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:24	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:24	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:24	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:24	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:24	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:24	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	90		50 - 200	03/13/25 07:24	03/14/25 04:24	1
13C6 PFDA	110		50 - 200	03/13/25 07:24	03/14/25 04:24	1
13C5 PFHxA	107		50 - 200	03/13/25 07:24	03/14/25 04:24	1
13C4 PFHpA	107		50 - 200	03/13/25 07:24	03/14/25 04:24	1
13C8 PFOA	110		50 - 200	03/13/25 07:24	03/14/25 04:24	1
13C9 PFNA	111		50 - 200	03/13/25 07:24	03/14/25 04:24	1
13C7 PFUnA	108		50 - 200	03/13/25 07:24	03/14/25 04:24	1
13C2 PFDoA	106		50 - 200	03/13/25 07:24	03/14/25 04:24	1
13C4 PFBA	109		50 - 200	03/13/25 07:24	03/14/25 04:24	1
13C5 PFPeA	107		50 - 200	03/13/25 07:24	03/14/25 04:24	1
13C3 PFBS	112		50 - 200	03/13/25 07:24	03/14/25 04:24	1
13C3 PFHxS	107		50 - 200	03/13/25 07:24	03/14/25 04:24	1
13C8 PFOS	115		50 - 200	03/13/25 07:24	03/14/25 04:24	1
13C2-4:2-FTS	142		50 - 200	03/13/25 07:24	03/14/25 04:24	1
13C2-6:2-FTS	131		50 - 200	03/13/25 07:24	03/14/25 04:24	1
13C2-8:2-FTS	128		50 - 200	03/13/25 07:24	03/14/25 04:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:07	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:07	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:07	1
N-methylperfluorooctanesulfonamide acetic acid (NMeFOSAA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:07	1
N-ethylperfluorooctanesulfonamide acetic acid (NEtFOSAA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:07	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:07	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:07	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-140209-1
SDG: Weekly PFAS

Client Sample ID: FB Aiea Wells Pumps 1&2 (260)

Lab Sample ID: 380-140209-3

Date Collected: 03/10/25 11:14

Matrix: Water

Date Received: 03/12/25 09:52

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:07	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:07	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:07	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:07	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:07	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:07	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:07	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:07	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:07	1
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:07	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	101		70 - 130	03/13/25 12:47	03/14/25 10:07	1
13C2 PFHxA	103		70 - 130	03/13/25 12:47	03/14/25 10:07	1
13C2 PFDA	113		70 - 130	03/13/25 12:47	03/14/25 10:07	1
13C3-GenX	95		70 - 130	03/13/25 12:47	03/14/25 10:07	1

Client Sample ID: FB Ka'amilo Wells

Lab Sample ID: 380-140209-4

Date Collected: 03/10/25 11:39

Matrix: Water

Date Received: 03/12/25 09:52

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		03/13/25 07:24	03/14/25 04:35	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:35	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:35	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:35	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:35	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:35	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:35	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:35	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:35	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:35	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:35	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:35	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:35	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:35	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:35	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:35	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:35	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:35	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-140209-1
SDG: Weekly PFAS

Client Sample ID: FB Ka'amilo Wells

Lab Sample ID: 380-140209-4

Date Collected: 03/10/25 11:39

Matrix: Water

Date Received: 03/12/25 09:52

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:35	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:35	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:35	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:35	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:35	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:35	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		03/13/25 07:24	03/14/25 04:35	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	98		50 - 200			03/13/25 07:24	03/14/25 04:35	1
13C6 PFDA	108		50 - 200			03/13/25 07:24	03/14/25 04:35	1
13C5 PFHxA	109		50 - 200			03/13/25 07:24	03/14/25 04:35	1
13C4 PFHpA	112		50 - 200			03/13/25 07:24	03/14/25 04:35	1
13C8 PFOA	109		50 - 200			03/13/25 07:24	03/14/25 04:35	1
13C9 PFNA	114		50 - 200			03/13/25 07:24	03/14/25 04:35	1
13C7 PFUnA	109		50 - 200			03/13/25 07:24	03/14/25 04:35	1
13C2 PFDoA	106		50 - 200			03/13/25 07:24	03/14/25 04:35	1
13C4 PFBA	109		50 - 200			03/13/25 07:24	03/14/25 04:35	1
13C5 PFPeA	109		50 - 200			03/13/25 07:24	03/14/25 04:35	1
13C3 PFBS	109		50 - 200			03/13/25 07:24	03/14/25 04:35	1
13C3 PFHxS	108		50 - 200			03/13/25 07:24	03/14/25 04:35	1
13C8 PFOS	113		50 - 200			03/13/25 07:24	03/14/25 04:35	1
13C2-4:2-FTS	136		50 - 200			03/13/25 07:24	03/14/25 04:35	1
13C2-6:2-FTS	125		50 - 200			03/13/25 07:24	03/14/25 04:35	1
13C2-8:2-FTS	116		50 - 200			03/13/25 07:24	03/14/25 04:35	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		03/13/25 12:47	03/14/25 10:16	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:16	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:16	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:16	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:16	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:16	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:16	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:16	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:16	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:16	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:16	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:16	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:16	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:16	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:16	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-140209-1
 SDG: Weekly PFAS

Client Sample ID: FB Ka'amilo Wells

Lab Sample ID: 380-140209-4

Date Collected: 03/10/25 11:39

Matrix: Water

Date Received: 03/12/25 09:52

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		03/13/25 12:47	03/14/25 10:16	1
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:16	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		03/13/25 12:47	03/14/25 10:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	109		70 - 130	03/13/25 12:47	03/14/25 10:16	1
13C2 PFHxA	107		70 - 130	03/13/25 12:47	03/14/25 10:16	1
13C2 PFDA	108		70 - 130	03/13/25 12:47	03/14/25 10:16	1
13C3-GenX	100		70 - 130	03/13/25 12:47	03/14/25 10:16	1

Action Limit Summary

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

Job ID: 380-140209-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-140209-1

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)	<2.0		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: 380-140209-2

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)	2.3		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.7		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)	2.8		ng/L	4	2.0	537.1	Total/NA
Perfluorooctanoic acid (PFOA)	2.1		ng/L	4	2.0	537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.9		ng/L	10	2.0	537.1	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	537.1	Total/NA

Client Sample ID: FB Aiea Wells Pumps 1&2 (260)

Lab Sample ID: 380-140209-3

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
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

Eurofins Eaton Analytical Pomona

Action Limit Summary

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

Job ID: 380-140209-1
SDG: Weekly PFAS

Client Sample ID: FB Aiea Wells Pumps 1&2 (260) (Continued)

Lab Sample ID: 380-140209-3

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL	RL	Method	Prep Type
				Limit			
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	537.1	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	537.1	Total/NA

Client Sample ID: FB Ka'amilo Wells

Lab Sample ID: 380-140209-4

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: 380-140209-1
 SDG: Weekly PFAS

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		d5NEFOS (70-130)	PFHxA (70-130)	PFDA (70-130)	GenX (70-130)
380-140209-1	AIEA WELLS PUMPS 1&2 (260)	105	110	109	104
380-140209-2	Ka'amilo Wells	103	111	114	103
380-140209-3	FB Aiea Wells Pumps 1&2 (260)	101	103	113	95
380-140209-4	FB Ka'amilo Wells	109	107	108	100
380-140250-A-1-B MS	Matrix Spike	102	105	110	105
380-140250-A-1-C MSD	Matrix Spike Duplicate	104	109	110	109
LCS 380-141775/22-A	Lab Control Sample	101	104	109	96
MBL 380-141775/20-A	Method Blank	100	104	105	100
MRL 380-141775/21-A	Lab Control Sample	104	106	109	99

Surrogate Legend

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

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

Isotope Dilution Summary

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

Job ID: 380-140209-1
SDG: Weekly PFAS

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)
380-140209-1	AIEA WELLS PUMPS 1&2 (260)	88	101	94	94	94	100	103	101
380-140209-2	Ka'amilo Wells	87	90	92	90	86	88	92	90
380-140209-3	FB Aiea Wells Pumps 1&2 (260)	90	110	107	107	110	111	108	106
380-140209-4	FB Ka'amilo Wells	98	108	109	112	109	114	109	106
380-140294-B-1-A MS	Matrix Spike	87	87	92	93	90	89	88	85
380-140294-C-1-A MSD	Matrix Spike Duplicate	88	85	89	90	89	86	88	88
LCS 380-141684/22-A	Lab Control Sample	94	108	104	105	109	109	106	103
MBL 380-141684/20-A	Method Blank	87	101	98	95	100	103	98	96
MRL 380-141684/21-A	Lab Control Sample	94	105	105	109	107	108	103	102

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)
380-140209-1	AIEA WELLS PUMPS 1&2 (260)	97	95	106	103	110	135	118	113
380-140209-2	Ka'amilo Wells	100	100	108	106	110	128	120	110
380-140209-3	FB Aiea Wells Pumps 1&2 (260)	109	107	112	107	115	142	131	128
380-140209-4	FB Ka'amilo Wells	109	109	109	108	113	136	125	116
380-140294-B-1-A MS	Matrix Spike	98	95	111	108	112	133	124	117
380-140294-C-1-A MSD	Matrix Spike Duplicate	99	97	108	105	111	129	122	112
LCS 380-141684/22-A	Lab Control Sample	106	104	109	106	112	133	123	117
MBL 380-141684/20-A	Method Blank	101	97	101	98	104	130	118	111
MRL 380-141684/21-A	Lab Control Sample	108	106	107	106	110	134	126	112

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: 380-140209-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-141684/20-A
Matrix: Water
Analysis Batch: 141834

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 141684

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		03/13/25 07:24	03/14/25 01:47	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		03/13/25 07:24	03/14/25 01:47	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		03/13/25 07:24	03/14/25 01:47	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		03/13/25 07:24	03/14/25 01:47	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		03/13/25 07:24	03/14/25 01:47	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		03/13/25 07:24	03/14/25 01:47	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		03/13/25 07:24	03/14/25 01:47	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		03/13/25 07:24	03/14/25 01:47	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		03/13/25 07:24	03/14/25 01:47	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		03/13/25 07:24	03/14/25 01:47	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		03/13/25 07:24	03/14/25 01:47	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		03/13/25 07:24	03/14/25 01:47	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		03/13/25 07:24	03/14/25 01:47	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		03/13/25 07:24	03/14/25 01:47	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		03/13/25 07:24	03/14/25 01:47	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		03/13/25 07:24	03/14/25 01:47	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		03/13/25 07:24	03/14/25 01:47	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		03/13/25 07:24	03/14/25 01:47	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		03/13/25 07:24	03/14/25 01:47	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		03/13/25 07:24	03/14/25 01:47	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		03/13/25 07:24	03/14/25 01:47	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		03/13/25 07:24	03/14/25 01:47	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		03/13/25 07:24	03/14/25 01:47	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		03/13/25 07:24	03/14/25 01:47	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		03/13/25 07:24	03/14/25 01:47	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	87		50 - 200	03/13/25 07:24	03/14/25 01:47	1
13C6 PFDA	101		50 - 200	03/13/25 07:24	03/14/25 01:47	1
13C5 PFHxA	98		50 - 200	03/13/25 07:24	03/14/25 01:47	1
13C4 PFHpA	95		50 - 200	03/13/25 07:24	03/14/25 01:47	1
13C8 PFOA	100		50 - 200	03/13/25 07:24	03/14/25 01:47	1
13C9 PFNA	103		50 - 200	03/13/25 07:24	03/14/25 01:47	1
13C7 PFUnA	98		50 - 200	03/13/25 07:24	03/14/25 01:47	1
13C2 PFDoA	96		50 - 200	03/13/25 07:24	03/14/25 01:47	1
13C4 PFBA	101		50 - 200	03/13/25 07:24	03/14/25 01:47	1
13C5 PFPeA	97		50 - 200	03/13/25 07:24	03/14/25 01:47	1
13C3 PFBS	101		50 - 200	03/13/25 07:24	03/14/25 01:47	1
13C3 PFHxS	98		50 - 200	03/13/25 07:24	03/14/25 01:47	1

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QC Sample Results

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

Job ID: 380-140209-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-141684/20-A
Matrix: Water
Analysis Batch: 141834

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 141684

<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	104		50 - 200	03/13/25 07:24	03/14/25 01:47	1
13C2-4:2-FTS	130		50 - 200	03/13/25 07:24	03/14/25 01:47	1
13C2-6:2-FTS	118		50 - 200	03/13/25 07:24	03/14/25 01:47	1
13C2-8:2-FTS	111		50 - 200	03/13/25 07:24	03/14/25 01:47	1

Lab Sample ID: LCS 380-141684/22-A
Matrix: Water
Analysis Batch: 141834

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 141684

<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)	60.1	55.5		ng/L		92	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	60.1	55.5		ng/L		92	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.1	61.2		ng/L		102	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.1	62.8		ng/L		105	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.1	58.7		ng/L		98	70 - 130
Perfluorodecanoic acid (PFDA)	60.1	62.5		ng/L		104	70 - 130
Perfluorododecanoic acid (PFDoA)	60.1	62.7		ng/L		104	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.1	64.6		ng/L		107	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.1	62.1		ng/L		103	70 - 130
Perfluorohexanoic acid (PFHxA)	60.1	64.5		ng/L		107	70 - 130
Perfluorononanoic acid (PFNA)	60.1	62.1		ng/L		103	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.1	58.8		ng/L		98	70 - 130
Perfluorooctanoic acid (PFOA)	60.1	60.6		ng/L		101	70 - 130
Perfluoroundecanoic acid (PFUnA)	60.1	63.7		ng/L		106	70 - 130
Perfluorobutanoic acid (PFBA)	60.1	62.3		ng/L		104	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.1	63.4		ng/L		106	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.1	61.3		ng/L		102	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.1	62.8		ng/L		104	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	60.1	73.3		ng/L		122	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	60.1	61.0		ng/L		101	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.1	61.0		ng/L		102	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.1	59.3		ng/L		99	70 - 130
Perfluoropentanoic acid (PFPeA)	60.1	61.1		ng/L		102	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	60.1	57.7		ng/L		96	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-140209-1
SDG: Weekly PFAS

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

Lab Sample ID: LCS 380-141684/22-A
Matrix: Water
Analysis Batch: 141834

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 141684

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	60.1	61.0		ng/L		101	70 - 130
LCS LCS							
Isotope Dilution	%Recovery	Qualifier	Limits				
13C3 HFPO-DA	94		50 - 200				
13C6 PFDA	108		50 - 200				
13C5 PFHxA	104		50 - 200				
13C4 PFHpA	105		50 - 200				
13C8 PFOA	109		50 - 200				
13C9 PFNA	109		50 - 200				
13C7 PFUnA	106		50 - 200				
13C2 PFDoA	103		50 - 200				
13C4 PFBA	106		50 - 200				
13C5 PFPeA	104		50 - 200				
13C3 PFBS	109		50 - 200				
13C3 PFHxS	106		50 - 200				
13C8 PFOS	112		50 - 200				
13C2-4:2-FTS	133		50 - 200				
13C2-6:2-FTS	123		50 - 200				
13C2-8:2-FTS	117		50 - 200				

Lab Sample ID: MRL 380-141684/21-A
Matrix: Water
Analysis Batch: 141834

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 141684

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	1.66	J	ng/L		83	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	1.64	J	ng/L		82	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	1.70	J	ng/L		85	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	1.89	J	ng/L		94	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	1.80	J	ng/L		90	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	1.84	J	ng/L		92	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	1.83	J	ng/L		91	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	1.80	J	ng/L		90	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	1.84	J	ng/L		92	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	1.90	J	ng/L		95	50 - 150
Perfluorononanoic acid (PFNA)	2.00	1.83	J	ng/L		91	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	1.80	J	ng/L		90	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	1.82	J	ng/L		91	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	1.88	J	ng/L		94	50 - 150
Perfluorobutanoic acid (PFBA)	2.00	2.01	J	ng/L		100	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-140209-1
SDG: Weekly PFAS

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

Lab Sample ID: MRL 380-141684/21-A
Matrix: Water
Analysis Batch: 141834

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 141684

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.00	1.92	J	ng/L		96	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.00	1.86	J	ng/L		93	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.00	1.87	J	ng/L		93	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.00	2.14	J	ng/L		107	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.00	1.81	J	ng/L		90	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.00	1.81	J	ng/L		90	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.00	1.79	J	ng/L		89	50 - 150
Perfluoropentanoic acid (PFPeA)	2.00	1.88	J	ng/L		94	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.00	1.58	J	ng/L		79	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.00	1.77	J	ng/L		88	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	94		50 - 200
13C6 PFDA	105		50 - 200
13C5 PFHxA	105		50 - 200
13C4 PFHpA	109		50 - 200
13C8 PFOA	107		50 - 200
13C9 PFNA	108		50 - 200
13C7 PFUnA	103		50 - 200
13C2 PFDoA	102		50 - 200
13C4 PFBA	108		50 - 200
13C5 PFPeA	106		50 - 200
13C3 PFBS	107		50 - 200
13C3 PFHxS	106		50 - 200
13C8 PFOS	110		50 - 200
13C2-4:2-FTS	134		50 - 200
13C2-6:2-FTS	126		50 - 200
13C2-8:2-FTS	112		50 - 200

Lab Sample ID: 380-140294-B-1-A MS
Matrix: Water
Analysis Batch: 141834

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 141684

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		60.1	53.7		ng/L		89	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.1	55.0		ng/L		92	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.1	57.8		ng/L		96	70 - 130

QC Sample Results

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

Job ID: 380-140209-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-140294-B-1-A MS
Matrix: Water
Analysis Batch: 141834

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 141684

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	<2.0		60.1	62.4		ng/L		104	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.1	59.2		ng/L		98	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.1	61.3		ng/L		102	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.1	64.0		ng/L		106	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.1	61.5		ng/L		102	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.1	62.2		ng/L		101	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		60.1	62.8		ng/L		104	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.1	61.5		ng/L		102	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.1	59.7		ng/L		99	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.1	61.4		ng/L		102	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.1	63.0		ng/L		105	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.1	61.6		ng/L		102	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.1	63.2		ng/L		105	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.1	59.2		ng/L		98	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.1	62.0		ng/L		103	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0	F1	60.1	72.3		ng/L		120	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.1	61.1		ng/L		102	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.1	59.7		ng/L		99	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.1	60.1		ng/L		100	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		60.1	60.6		ng/L		101	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.1	57.2		ng/L		95	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.1	60.5		ng/L		101	70 - 130

Isotope Dilution	MS MS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	87		50 - 200
13C6 PFDA	87		50 - 200
13C5 PFHxA	92		50 - 200
13C4 PFHpA	93		50 - 200
13C8 PFOA	90		50 - 200
13C9 PFNA	89		50 - 200
13C7 PFUnA	88		50 - 200
13C2 PFDoA	85		50 - 200
13C4 PFBA	98		50 - 200
13C5 PFPeA	95		50 - 200
13C3 PFBS	111		50 - 200
13C3 PFHxS	108		50 - 200
13C8 PFOS	112		50 - 200

QC Sample Results

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

Job ID: 380-140209-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-140294-B-1-A MS
Matrix: Water
Analysis Batch: 141834

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 141684

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
13C2-4:2-FTS	133		50 - 200
13C2-6:2-FTS	124		50 - 200
13C2-8:2-FTS	117		50 - 200

Lab Sample ID: 380-140294-C-1-A MSD
Matrix: Water
Analysis Batch: 141834

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 141684

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	55.2		ng/L		92	70 - 130	3	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.1	54.6		ng/L		91	70 - 130	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.1	59.6		ng/L		99	70 - 130	3	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.1	65.0		ng/L		108	70 - 130	4	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.1	59.5		ng/L		99	70 - 130	1	30
Perfluorodecanoic acid (PFDA)	<2.0		60.1	61.9		ng/L		103	70 - 130	1	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.1	63.6		ng/L		106	70 - 130	1	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.1	65.1		ng/L		108	70 - 130	6	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.1	61.7		ng/L		101	70 - 130	1	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.1	65.5		ng/L		109	70 - 130	4	30
Perfluorononanoic acid (PFNA)	<2.0		60.1	62.8		ng/L		104	70 - 130	2	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.1	60.0		ng/L		100	70 - 130	0	30
Perfluorooctanoic acid (PFOA)	<2.0		60.1	63.2		ng/L		105	70 - 130	3	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.1	63.6		ng/L		106	70 - 130	1	30
Perfluorobutanoic acid (PFBA)	<2.0		60.1	63.0		ng/L		105	70 - 130	2	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.1	64.9		ng/L		108	70 - 130	3	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.1	60.8		ng/L		101	70 - 130	3	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.1	62.9		ng/L		105	70 - 130	1	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0	F1	60.1	80.7	F1	ng/L		134	70 - 130	11	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.1	59.2		ng/L		98	70 - 130	3	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.1	62.1		ng/L		103	70 - 130	4	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.1	59.6		ng/L		99	70 - 130	1	30
Perfluoropentanoic acid (PFPeA)	<2.0		60.1	63.7		ng/L		106	70 - 130	5	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.1	59.0		ng/L		98	70 - 130	3	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.1	59.8		ng/L		99	70 - 130	1	30

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-140209-1
SDG: Weekly PFAS

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

Isotope Dilution	MSD MSD		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	88		50 - 200
13C6 PFDA	85		50 - 200
13C5 PFHxA	89		50 - 200
13C4 PFHpA	90		50 - 200
13C8 PFOA	89		50 - 200
13C9 PFNA	86		50 - 200
13C7 PFUnA	88		50 - 200
13C2 PFDoA	88		50 - 200
13C4 PFBA	99		50 - 200
13C5 PFPeA	97		50 - 200
13C3 PFBS	108		50 - 200
13C3 PFHxS	105		50 - 200
13C8 PFOS	111		50 - 200
13C2-4:2-FTS	129		50 - 200
13C2-6:2-FTS	122		50 - 200
13C2-8:2-FTS	112		50 - 200

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

Lab Sample ID: MBL 380-141775/20-A
Matrix: Water
Analysis Batch: 141883

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 141775

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		03/13/25 12:47	03/14/25 08:41	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		03/13/25 12:47	03/14/25 08:41	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		03/13/25 12:47	03/14/25 08:41	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		03/13/25 12:47	03/14/25 08:41	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		03/13/25 12:47	03/14/25 08:41	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		03/13/25 12:47	03/14/25 08:41	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		03/13/25 12:47	03/14/25 08:41	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		03/13/25 12:47	03/14/25 08:41	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		03/13/25 12:47	03/14/25 08:41	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		03/13/25 12:47	03/14/25 08:41	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		03/13/25 12:47	03/14/25 08:41	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		03/13/25 12:47	03/14/25 08:41	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		03/13/25 12:47	03/14/25 08:41	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		03/13/25 12:47	03/14/25 08:41	1
Perfluorotridecanoic acid (PFTrDA)	<0.36		2.0	ng/L		03/13/25 12:47	03/14/25 08:41	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		03/13/25 12:47	03/14/25 08:41	1
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		03/13/25 12:47	03/14/25 08:41	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		03/13/25 12:47	03/14/25 08:41	1
Surrogate	MBL MBL		Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
d5-NEtFOSAA	100		70 - 130			03/13/25 12:47	03/14/25 08:41	1
13C2 PFHxA	104		70 - 130			03/13/25 12:47	03/14/25 08:41	1
13C2 PFDA	105		70 - 130			03/13/25 12:47	03/14/25 08:41	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-140209-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-141775/20-A
Matrix: Water
Analysis Batch: 141883

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 141775

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3-GenX	100		70 - 130	03/13/25 12:47	03/14/25 08:41	1

Lab Sample ID: LCS 380-141775/22-A
Matrix: Water
Analysis Batch: 141883

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 141775

<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>Limits</i>
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	25.1	24.7		ng/L		98	70 - 130
Perfluorooctanesulfonic acid (PFOS)	25.1	28.4		ng/L		113	70 - 130
Perfluoroundecanoic acid (PFUnA)	25.1	28.1		ng/L		112	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.1	26.3		ng/L		105	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.1	27.2		ng/L		108	70 - 130
Perfluorohexanoic acid (PFHxA)	25.1	26.5		ng/L		106	70 - 130
Perfluorododecanoic acid (PFDoA)	25.1	28.2		ng/L		112	70 - 130
Perfluorooctanoic acid (PFOA)	25.1	28.1		ng/L		112	70 - 130
Perfluorodecanoic acid (PFDA)	25.1	28.1		ng/L		112	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	25.1	28.3		ng/L		113	70 - 130
Perfluorobutanesulfonic acid (PFBS)	25.1	27.5		ng/L		110	70 - 130
Perfluoroheptanoic acid (PFHpA)	25.1	27.3		ng/L		109	70 - 130
Perfluorononanoic acid (PFNA)	25.1	27.7		ng/L		110	70 - 130
Perfluorotetradecanoic acid (PFTA)	25.1	27.1		ng/L		108	70 - 130
Perfluorotridecanoic acid (PFTrDA)	25.1	26.9		ng/L		107	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	25.1	28.3		ng/L		113	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	25.1	26.8		ng/L		107	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	25.1	27.0		ng/L		108	70 - 130

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
d5-NEtFOSAA	101		70 - 130
13C2 PFHxA	104		70 - 130
13C2 PFDA	109		70 - 130
13C3-GenX	96		70 - 130

QC Sample Results

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

Job ID: 380-140209-1
SDG: Weekly PFAS

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

Lab Sample ID: MRL 380-141775/21-A
Matrix: Water
Analysis Batch: 141883

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 141775

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.11	J	ng/L		105	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.33	J	ng/L		116	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.22	J	ng/L		110	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.01	2.09	J	ng/L		104	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.01	2.17	J	ng/L		108	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.35	J	ng/L		117	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.26	J	ng/L		112	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.32	J	ng/L		116	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.23	J	ng/L		111	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.33	J	ng/L		116	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.34	J	ng/L		116	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.25	J	ng/L		112	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.30	J	ng/L		114	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.01	2.24	J	ng/L		112	50 - 150
Perfluorotridecanoic acid (PFTTrDA)	2.01	2.12	J	ng/L		105	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	2.26	J	ng/L		113	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	2.13	J	ng/L		106	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	2.09	J	ng/L		104	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	MRL Limits
d5-NEtFOSAA	104		70 - 130
13C2 PFHxA	106		70 - 130
13C2 PFDA	109		70 - 130
13C3-GenX	99		70 - 130

Lab Sample ID: 380-140250-A-1-B MS
Matrix: Water
Analysis Batch: 141883

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 141775

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		25.2	26.0		ng/L		103	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		25.2	28.1		ng/L		112	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		25.2	27.3		ng/L		109	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.2	26.1		ng/L		104	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-140209-1
 SDG: Weekly PFAS

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

Lab Sample ID: 380-140250-A-1-C MSD

Matrix: Water

Analysis Batch: 141883

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 141775

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		
Perfluorohexanesulfonic acid (PFHxS)	<2.0		25.2	29.7		ng/L		115	70 - 130	3	30
Perfluorobutanesulfonic acid (PFBS)	2.4		25.2	30.7		ng/L		112	70 - 130	3	30
Perfluoroheptanoic acid (PFHpA)	<2.0		25.2	28.2		ng/L		110	70 - 130	0	30
Perfluorononanoic acid (PFNA)	<2.0		25.2	27.8		ng/L		111	70 - 130	1	30
Perfluorotetradecanoic acid (PFTA)	<2.0		25.2	26.7		ng/L		106	70 - 130	1	30
Perfluorotridecanoic acid (PFTTrDA)	<2.0		25.2	26.7		ng/L		106	70 - 130	1	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		25.2	29.3		ng/L		116	70 - 130	7	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		25.2	27.3		ng/L		109	70 - 130	4	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		25.2	27.7		ng/L		110	70 - 130	2	30
		MSD	MSD								
Surrogate		%Recovery	Qualifier	Limits							
d5-NEtFOSAA		104		70 - 130							
13C2 PFHxA		109		70 - 130							
13C2 PFDA		110		70 - 130							
13C3-GenX		109		70 - 130							

QC Association Summary

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

Job ID: 380-140209-1
SDG: Weekly PFAS

LCMS

Prep Batch: 141684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-140209-1	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Water	533	
380-140209-2	Ka'amilo Wells	Total/NA	Water	533	
380-140209-3	FB Aiea Wells Pumps 1&2 (260)	Total/NA	Water	533	
380-140209-4	FB Ka'amilo Wells	Total/NA	Water	533	
MBL 380-141684/20-A	Method Blank	Total/NA	Water	533	
LCS 380-141684/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-141684/21-A	Lab Control Sample	Total/NA	Water	533	
380-140294-B-1-A MS	Matrix Spike	Total/NA	Water	533	
380-140294-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Prep Batch: 141775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-140209-1	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Water	537.1 DW	
380-140209-2	Ka'amilo Wells	Total/NA	Water	537.1 DW	
380-140209-3	FB Aiea Wells Pumps 1&2 (260)	Total/NA	Water	537.1 DW	
380-140209-4	FB Ka'amilo Wells	Total/NA	Water	537.1 DW	
MBL 380-141775/20-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-141775/22-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-141775/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-140250-A-1-B MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-140250-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Analysis Batch: 141834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-140209-1	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Water	533	141684
380-140209-2	Ka'amilo Wells	Total/NA	Water	533	141684
380-140209-3	FB Aiea Wells Pumps 1&2 (260)	Total/NA	Water	533	141684
380-140209-4	FB Ka'amilo Wells	Total/NA	Water	533	141684
MBL 380-141684/20-A	Method Blank	Total/NA	Water	533	141684
LCS 380-141684/22-A	Lab Control Sample	Total/NA	Water	533	141684
MRL 380-141684/21-A	Lab Control Sample	Total/NA	Water	533	141684
380-140294-B-1-A MS	Matrix Spike	Total/NA	Water	533	141684
380-140294-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	141684

Analysis Batch: 141883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-140209-1	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Water	537.1	141775
380-140209-2	Ka'amilo Wells	Total/NA	Water	537.1	141775
380-140209-3	FB Aiea Wells Pumps 1&2 (260)	Total/NA	Water	537.1	141775
380-140209-4	FB Ka'amilo Wells	Total/NA	Water	537.1	141775
MBL 380-141775/20-A	Method Blank	Total/NA	Water	537.1	141775
LCS 380-141775/22-A	Lab Control Sample	Total/NA	Water	537.1	141775
MRL 380-141775/21-A	Lab Control Sample	Total/NA	Water	537.1	141775
380-140250-A-1-B MS	Matrix Spike	Total/NA	Water	537.1	141775
380-140250-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	537.1	141775

Lab Chronicle

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

Job ID: 380-140209-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-140209-1

Date Collected: 03/10/25 11:14

Matrix: Water

Date Received: 03/12/25 09:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			141684	XTD8	EA POM	03/13/25 07:24
Total/NA	Analysis	533		1	141834	Y5FM	EA POM	03/14/25 03:54
Total/NA	Prep	537.1 DW			141775	HM3M	EA POM	03/13/25 12:47
Total/NA	Analysis	537.1		1	141883	SZ9R	EA POM	03/14/25 09:48

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-140209-2

Date Collected: 03/10/25 11:39

Matrix: Water

Date Received: 03/12/25 09:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			141684	XTD8	EA POM	03/13/25 07:24
Total/NA	Analysis	533		1	141834	Y5FM	EA POM	03/14/25 04:03
Total/NA	Prep	537.1 DW			141775	HM3M	EA POM	03/13/25 12:47
Total/NA	Analysis	537.1		1	141883	SZ9R	EA POM	03/14/25 09:57

Client Sample ID: FB Aiea Wells Pumps 1&2 (260)

Lab Sample ID: 380-140209-3

Date Collected: 03/10/25 11:14

Matrix: Water

Date Received: 03/12/25 09:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			141684	XTD8	EA POM	03/13/25 07:24
Total/NA	Analysis	533		1	141834	Y5FM	EA POM	03/14/25 04:24
Total/NA	Prep	537.1 DW			141775	HM3M	EA POM	03/13/25 12:47
Total/NA	Analysis	537.1		1	141883	SZ9R	EA POM	03/14/25 10:07

Client Sample ID: FB Ka'amilo Wells

Lab Sample ID: 380-140209-4

Date Collected: 03/10/25 11:39

Matrix: Water

Date Received: 03/12/25 09:52

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			141684	XTD8	EA POM	03/13/25 07:24
Total/NA	Analysis	533		1	141834	Y5FM	EA POM	03/14/25 04:35
Total/NA	Prep	537.1 DW			141775	HM3M	EA POM	03/13/25 12:47
Total/NA	Analysis	537.1		1	141883	SZ9R	EA POM	03/14/25 10:16

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: 380-140209-1
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
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- 16
- 17

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

Method Summary

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

Job ID: 380-140209-1
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: 380-140209-1
SDG: Weekly PFAS

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-140209-1	AIEA WELLS PUMPS 1&2 (260) P2	Water	03/10/25 11:14	03/12/25 09:52
380-140209-2	Ka'amilo Wells	Water	03/10/25 11:39	03/12/25 09:52
380-140209-3	FB Aiea Wells Pumps 1&2 (260)	Water	03/10/25 11:14	03/12/25 09:52
380-140209-4	FB Ka'amilo Wells	Water	03/10/25 11:39	03/12/25 09:52

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- 15
- 16
- 17

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



Chain of Custody Record

Environmental Technology



Client Information
 Client Contact: kirik iwamoto
 Phone: +1 808 748 5840
 Lab PM: Arada, Rachelle
 State of Origin: Hawaii
 E-Mail: Rachelle.Arada@et.euronisus.com
 Carrier Tracking No(s): 380-27941-2757
 Company: City & County of Honolulu
 Address: 630 South Beretania Street; Chemistry Lab
 City: Honolulu
 State, Zip: HI 96843
 Phone: 808-748-5840 (tel)
 Email: kiwamoto@hbws.org
 Project Name: RED-HILL/HBWS sites Event Desc: RUSH Weekly Red Hill
 Site:
 Due Date Requested:
 TAT Requested (days):
 Compliance Project: No Yes
 PO #: C20525101 exp 05312023
 WO #:
 Project #: 38001111
 SOW#:
 PWSID:
 COC No: 380-27941-2757
 Page: Page 2 of 2
 Job #: 380-140209 COC

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=Soil, O=Other)	Field Filled Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT 625 PAH Physic LL (EAL) + TICs	80159_GRO_LL (MOD) GRO	80159_GRO_LL_CS - HNL Ranges C10-C24/C24-C36/C8-C18	525 2_PREC - (MOD) 525plus PLUS TICs	537 1_DW_PREC 537 1 Full List	533 All Analytes	Total Number of Containers	Special Instructions/Note:	Analysis Requested																
															Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecalhydrate U - Acetone V - MCAA W - pH 4-5 X - EDTA Y - Trizma Z - other (specify) Other																
Aiea Wells Pumps 1&2 (260) PZ	10-Mar-2025	1114	G	Water																											
Ka'amilo Wells	10-Mar-2025	1139	G	Water												chlorinated															
FB Aiea Wells Pumps 1&2 (260)	10-Mar-2025	1114																													
FB Ka'amilo Wells	10-Mar-2025	1139																													

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested I II III IV Other (specify)

Empty Kit Relinquished by: _____ Date: _____
 Relinquished by: _____ Date/Time: _____
 Relinquished by: _____ Date/Time: _____

Method of Shipment: FEDEX 77264709 5067
 Date/Time: 03/12/25 09:52
 Company: EEAP
 Date/Time: _____
 Company: _____
 Date/Time: _____
 Company: _____

Cooler Temperature(s) °C and Other Remarks: (451A) 1.3°-0.0°=1.3° GEL-FROZEN
 Ver-01/16/2019

Custody Seal No
 Δ Yes Δ No

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-140209-1

SDG Number: Weekly PFAS

Login Number: 140209

List Source: Eurofins Eaton Analytical Pomona

List Number: 1

Creator: Edrosa, Rey

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	

