

ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

RED-HILL
PFAS: Ka'amilo Wells P1/P2

JOB NUMBER

380-170783-1

Eurofins Eaton Analytical Pomona

Job Notes

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

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

Compliance Statement

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

Authorization



Authorized for release by
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Definitions/Glossary

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

Job ID: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

Qualifiers

LCMS

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

Glossary

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

Case Narrative

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

Job ID: 380-170783-1

Job ID: 380-170783-1

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Job Narrative 380-170783-1

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

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

Receipt

The samples were received on 9/10/2025 9:35 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.3°C.

PFAS

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

Detection Summary

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

Job ID: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: Ka'amilo Wells P1

Lab Sample ID: 380-170783-1

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	2.8		2.0	ng/L	1		533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.2		2.0	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	3.3		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.2		2.0	ng/L	1		533	Total/NA
Perfluorooctanoic acid (PFOA)	3.4		2.0	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	3.5		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.4		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanoic acid (PFHxA)	3.7		2.0	ng/L	1		537.1	Total/NA
Perfluorooctanoic acid (PFOA)	3.8		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.7		2.0	ng/L	1		537.1	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.1		2.0	ng/L	1		537.1	Total/NA

Client Sample ID: Ka'amilo Wells P2

Lab Sample ID: 380-170783-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	2.6		2.0	ng/L	1		533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.9		2.0	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	3.1		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.6		2.0	ng/L	1		533	Total/NA
Perfluorooctanoic acid (PFOA)	3.1		2.0	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	3.4		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.7		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanoic acid (PFHxA)	3.4		2.0	ng/L	1		537.1	Total/NA
Perfluorooctanoic acid (PFOA)	3.5		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.3		2.0	ng/L	1		537.1	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.8		2.0	ng/L	1		537.1	Total/NA

Client Sample ID: FB: Ka'amilo Wells P1

Lab Sample ID: 380-170783-3

No Detections.

Client Sample ID: FB: Ka'amilo Wells P2

Lab Sample ID: 380-170783-4

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: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: Ka'amilo Wells P1

Lab Sample ID: 380-170783-1

Date Collected: 09/08/25 11:53

Matrix: Water

Date Received: 09/10/25 09:35

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11CI-PF3OUdS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 22:55	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9CI-PF3ONS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 22:55	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 22:55	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 22:55	1
Perfluorobutanesulfonic acid (PFBS)	2.8		2.0	ng/L		09/12/25 06:47	09/12/25 22:55	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 22:55	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 22:55	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 22:55	1
Perfluorohexanesulfonic acid (PFHxS)	3.2		2.0	ng/L		09/12/25 06:47	09/12/25 22:55	1
Perfluorohexanoic acid (PFHxA)	3.3		2.0	ng/L		09/12/25 06:47	09/12/25 22:55	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 22:55	1
Perfluorooctanesulfonic acid (PFOS)	4.2		2.0	ng/L		09/12/25 06:47	09/12/25 22:55	1
Perfluorooctanoic acid (PFOA)	3.4		2.0	ng/L		09/12/25 06:47	09/12/25 22:55	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 22:55	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 22:55	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 22:55	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 22:55	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 22:55	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 22:55	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 22:55	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 22:55	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 22:55	1
Perfluoropentanoic acid (PFPeA)	3.5		2.0	ng/L		09/12/25 06:47	09/12/25 22:55	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 22:55	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 22:55	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	105		50 - 200	09/12/25 06:47	09/12/25 22:55	1
13C6 PFDA	112		50 - 200	09/12/25 06:47	09/12/25 22:55	1
13C5 PFHxA	108		50 - 200	09/12/25 06:47	09/12/25 22:55	1
13C4 PFHpA	108		50 - 200	09/12/25 06:47	09/12/25 22:55	1
13C8 PFOA	112		50 - 200	09/12/25 06:47	09/12/25 22:55	1
13C9 PFNA	109		50 - 200	09/12/25 06:47	09/12/25 22:55	1
13C7 PFUnA	108		50 - 200	09/12/25 06:47	09/12/25 22:55	1
13C2 PFDoA	103		50 - 200	09/12/25 06:47	09/12/25 22:55	1
13C4 PFBA	113		50 - 200	09/12/25 06:47	09/12/25 22:55	1
13C5 PFPeA	116		50 - 200	09/12/25 06:47	09/12/25 22:55	1
13C3 PFBS	114		50 - 200	09/12/25 06:47	09/12/25 22:55	1

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Client Sample Results

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

Job ID: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: Ka'amilo Wells P1

Lab Sample ID: 380-170783-1

Date Collected: 09/08/25 11:53

Matrix: Water

Date Received: 09/10/25 09:35

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFHxS	112		50 - 200	09/12/25 06:47	09/12/25 22:55	1
13C8 PFOS	111		50 - 200	09/12/25 06:47	09/12/25 22:55	1
13C2-4:2-FTS	143		50 - 200	09/12/25 06:47	09/12/25 22:55	1
13C2-6:2-FTS	148		50 - 200	09/12/25 06:47	09/12/25 22:55	1
13C2-8:2-FTS	130		50 - 200	09/12/25 06:47	09/12/25 22:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:35	1
Perfluorooctanesulfonic acid (PFOS)	4.4		2.0	ng/L		09/12/25 03:04	09/12/25 17:35	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:35	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:35	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:35	1
Perfluorohexanoic acid (PFHxA)	3.7		2.0	ng/L		09/12/25 03:04	09/12/25 17:35	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:35	1
Perfluorooctanoic acid (PFOA)	3.8		2.0	ng/L		09/12/25 03:04	09/12/25 17:35	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:35	1
Perfluorohexanesulfonic acid (PFHxS)	3.7		2.0	ng/L		09/12/25 03:04	09/12/25 17:35	1
Perfluorobutanesulfonic acid (PFBS)	3.1		2.0	ng/L		09/12/25 03:04	09/12/25 17:35	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:35	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:35	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:35	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:35	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:35	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:35	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	114		70 - 130	09/12/25 03:04	09/12/25 17:35	1
13C2 PFHxA	113		70 - 130	09/12/25 03:04	09/12/25 17:35	1
13C2 PFDA	113		70 - 130	09/12/25 03:04	09/12/25 17:35	1
13C3-GenX	113		70 - 130	09/12/25 03:04	09/12/25 17:35	1

Client Sample ID: Ka'amilo Wells P2

Lab Sample ID: 380-170783-2

Date Collected: 09/08/25 12:38

Matrix: Water

Date Received: 09/10/25 09:35

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:06	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:06	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: Ka'amilo Wells P2

Lab Sample ID: 380-170783-2

Date Collected: 09/08/25 12:38

Matrix: Water

Date Received: 09/10/25 09:35

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:06	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:06	1
Perfluorobutanesulfonic acid (PFBS)	2.6		2.0	ng/L		09/12/25 06:47	09/12/25 23:06	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:06	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:06	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:06	1
Perfluorohexanesulfonic acid (PFHxS)	2.9		2.0	ng/L		09/12/25 06:47	09/12/25 23:06	1
Perfluorohexanoic acid (PFHxA)	3.1		2.0	ng/L		09/12/25 06:47	09/12/25 23:06	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:06	1
Perfluorooctanesulfonic acid (PFOS)	3.6		2.0	ng/L		09/12/25 06:47	09/12/25 23:06	1
Perfluorooctanoic acid (PFOA)	3.1		2.0	ng/L		09/12/25 06:47	09/12/25 23:06	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:06	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:06	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:06	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:06	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:06	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:06	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:06	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:06	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:06	1
Perfluoropentanoic acid (PFPeA)	3.4		2.0	ng/L		09/12/25 06:47	09/12/25 23:06	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:06	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:06	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	102		50 - 200	09/12/25 06:47	09/12/25 23:06	1
13C6 PFDA	111		50 - 200	09/12/25 06:47	09/12/25 23:06	1
13C5 PFHxA	104		50 - 200	09/12/25 06:47	09/12/25 23:06	1
13C4 PFHpA	109		50 - 200	09/12/25 06:47	09/12/25 23:06	1
13C8 PFOA	114		50 - 200	09/12/25 06:47	09/12/25 23:06	1
13C9 PFNA	109		50 - 200	09/12/25 06:47	09/12/25 23:06	1
13C7 PFUnA	107		50 - 200	09/12/25 06:47	09/12/25 23:06	1
13C2 PFDoA	108		50 - 200	09/12/25 06:47	09/12/25 23:06	1
13C4 PFBA	114		50 - 200	09/12/25 06:47	09/12/25 23:06	1
13C5 PFPeA	116		50 - 200	09/12/25 06:47	09/12/25 23:06	1
13C3 PFBS	114		50 - 200	09/12/25 06:47	09/12/25 23:06	1
13C3 PFHxS	115		50 - 200	09/12/25 06:47	09/12/25 23:06	1
13C8 PFOS	112		50 - 200	09/12/25 06:47	09/12/25 23:06	1
13C2-4:2-FTS	133		50 - 200	09/12/25 06:47	09/12/25 23:06	1
13C2-6:2-FTS	142		50 - 200	09/12/25 06:47	09/12/25 23:06	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: Ka'amilo Wells P2

Lab Sample ID: 380-170783-2

Date Collected: 09/08/25 12:38

Matrix: Water

Date Received: 09/10/25 09:35

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2-8:2-FTS	117		50 - 200	09/12/25 06:47	09/12/25 23:06	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		09/12/25 03:04	09/12/25 17:45	1
Perfluorooctanesulfonic acid (PFOS)	3.7		2.0	ng/L		09/12/25 03:04	09/12/25 17:45	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:45	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:45	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:45	1
Perfluorohexanoic acid (PFHxA)	3.4		2.0	ng/L		09/12/25 03:04	09/12/25 17:45	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:45	1
Perfluorooctanoic acid (PFOA)	3.5		2.0	ng/L		09/12/25 03:04	09/12/25 17:45	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:45	1
Perfluorohexanesulfonic acid (PFHxS)	3.3		2.0	ng/L		09/12/25 03:04	09/12/25 17:45	1
Perfluorobutanesulfonic acid (PFBS)	2.8		2.0	ng/L		09/12/25 03:04	09/12/25 17:45	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:45	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:45	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:45	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:45	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:45	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:45	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	114		70 - 130			09/12/25 03:04	09/12/25 17:45	1
13C2 PFHxA	113		70 - 130			09/12/25 03:04	09/12/25 17:45	1
13C2 PFDA	111		70 - 130			09/12/25 03:04	09/12/25 17:45	1
13C3-GenX	114		70 - 130			09/12/25 03:04	09/12/25 17:45	1

Client Sample ID: FB: Ka'amilo Wells P1

Lab Sample ID: 380-170783-3

Date Collected: 09/08/25 11:53

Matrix: Water

Date Received: 09/10/25 09:35

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:16	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:16	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:16	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:16	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:16	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:16	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: FB: Ka'amilo Wells P1

Lab Sample ID: 380-170783-3

Date Collected: 09/08/25 11:53

Matrix: Water

Date Received: 09/10/25 09:35

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		09/12/25 06:47	09/12/25 23:16	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:16	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:16	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:16	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:16	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:16	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:16	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:16	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:16	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:16	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:16	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:16	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:16	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:16	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:16	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:16	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:16	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:16	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:16	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	107		50 - 200	09/12/25 06:47	09/12/25 23:16	1
13C6 PFDA	114		50 - 200	09/12/25 06:47	09/12/25 23:16	1
13C5 PFHxA	111		50 - 200	09/12/25 06:47	09/12/25 23:16	1
13C4 PFHpA	114		50 - 200	09/12/25 06:47	09/12/25 23:16	1
13C8 PFOA	116		50 - 200	09/12/25 06:47	09/12/25 23:16	1
13C9 PFNA	114		50 - 200	09/12/25 06:47	09/12/25 23:16	1
13C7 PFUnA	113		50 - 200	09/12/25 06:47	09/12/25 23:16	1
13C2 PFDoA	110		50 - 200	09/12/25 06:47	09/12/25 23:16	1
13C4 PFBA	115		50 - 200	09/12/25 06:47	09/12/25 23:16	1
13C5 PFPeA	117		50 - 200	09/12/25 06:47	09/12/25 23:16	1
13C3 PFBS	116		50 - 200	09/12/25 06:47	09/12/25 23:16	1
13C3 PFHxS	114		50 - 200	09/12/25 06:47	09/12/25 23:16	1
13C8 PFOS	114		50 - 200	09/12/25 06:47	09/12/25 23:16	1
13C2-4:2-FTS	129		50 - 200	09/12/25 06:47	09/12/25 23:16	1
13C2-6:2-FTS	131		50 - 200	09/12/25 06:47	09/12/25 23:16	1
13C2-8:2-FTS	120		50 - 200	09/12/25 06:47	09/12/25 23:16	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:56	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:56	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:56	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: FB: Ka'amilo Wells P1

Lab Sample ID: 380-170783-3

Date Collected: 09/08/25 11:53

Matrix: Water

Date Received: 09/10/25 09:35

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:56	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:56	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:56	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:56	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:56	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:56	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:56	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:56	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:56	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:56	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:56	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:56	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:56	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:56	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 17:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	106		70 - 130			09/12/25 03:04	09/12/25 17:56	1
13C2 PFHxA	117		70 - 130			09/12/25 03:04	09/12/25 17:56	1
13C2 PFDA	113		70 - 130			09/12/25 03:04	09/12/25 17:56	1
13C3-GenX	113		70 - 130			09/12/25 03:04	09/12/25 17:56	1

Client Sample ID: FB: Ka'amilo Wells P2

Lab Sample ID: 380-170783-4

Date Collected: 09/08/25 12:38

Matrix: Water

Date Received: 09/10/25 09:35

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:38	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:38	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:38	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:38	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:38	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:38	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:38	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:38	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:38	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:38	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:38	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:38	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:38	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:38	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:38	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: FB: Ka'amilo Wells P2

Lab Sample ID: 380-170783-4

Date Collected: 09/08/25 12:38

Matrix: Water

Date Received: 09/10/25 09:35

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:38	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:38	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:38	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:38	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:38	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:38	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:38	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:38	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:38	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		09/12/25 06:47	09/12/25 23:38	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	103		50 - 200			09/12/25 06:47	09/12/25 23:38	1
13C6 PFDA	105		50 - 200			09/12/25 06:47	09/12/25 23:38	1
13C5 PFHxA	110		50 - 200			09/12/25 06:47	09/12/25 23:38	1
13C4 PFHpA	111		50 - 200			09/12/25 06:47	09/12/25 23:38	1
13C8 PFOA	111		50 - 200			09/12/25 06:47	09/12/25 23:38	1
13C9 PFNA	109		50 - 200			09/12/25 06:47	09/12/25 23:38	1
13C7 PFUnA	107		50 - 200			09/12/25 06:47	09/12/25 23:38	1
13C2 PFDoA	105		50 - 200			09/12/25 06:47	09/12/25 23:38	1
13C4 PFBA	117		50 - 200			09/12/25 06:47	09/12/25 23:38	1
13C5 PFPeA	122		50 - 200			09/12/25 06:47	09/12/25 23:38	1
13C3 PFBS	116		50 - 200			09/12/25 06:47	09/12/25 23:38	1
13C3 PFHxS	116		50 - 200			09/12/25 06:47	09/12/25 23:38	1
13C8 PFOS	112		50 - 200			09/12/25 06:47	09/12/25 23:38	1
13C2-4:2-FTS	126		50 - 200			09/12/25 06:47	09/12/25 23:38	1
13C2-6:2-FTS	128		50 - 200			09/12/25 06:47	09/12/25 23:38	1
13C2-8:2-FTS	111		50 - 200			09/12/25 06:47	09/12/25 23:38	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 18:07	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 18:07	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 18:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 18:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 18:07	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 18:07	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 18:07	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 18:07	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 18:07	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 18:07	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: FB: Ka'amilo Wells P2

Lab Sample ID: 380-170783-4

Date Collected: 09/08/25 12:38

Matrix: Water

Date Received: 09/10/25 09:35

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		09/12/25 03:04	09/12/25 18:07	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 18:07	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 18:07	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 18:07	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 18:07	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 18:07	1
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 18:07	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		09/12/25 03:04	09/12/25 18:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	105		70 - 130			09/12/25 03:04	09/12/25 18:07	1
13C2 PFHxA	113		70 - 130			09/12/25 03:04	09/12/25 18:07	1
13C2 PFDA	112		70 - 130			09/12/25 03:04	09/12/25 18:07	1
13C3-GenX	109		70 - 130			09/12/25 03:04	09/12/25 18:07	1

Action Limit Summary

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

Job ID: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: Ka'amilo Wells P1

Lab Sample ID: 380-170783-1

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)	3.2		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.2		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	3.4		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)	4.4		ng/L	4	2.0	537.1	Total/NA
Perfluorooctanoic acid (PFOA)	3.8		ng/L	4	2.0	537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.7		ng/L	10	2.0	537.1	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	537.1	Total/NA

Client Sample ID: Ka'amilo Wells P2

Lab Sample ID: 380-170783-2

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)	2.9		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.6		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	3.1		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)	3.7		ng/L	4	2.0	537.1	Total/NA
Perfluorooctanoic acid (PFOA)	3.5		ng/L	4	2.0	537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.3		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 P1

Lab Sample ID: 380-170783-3

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
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: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: FB: Ka'amilo Wells P1 (Continued)

Lab Sample ID: 380-170783-3

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 P2

Lab Sample ID: 380-170783-4

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: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

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)
380-170765-B-1-A MS	Matrix Spike	112	118	110	116
380-170765-C-1-A MSD	Matrix Spike Duplicate	108	121	117	118
380-170783-1	Ka'amilo Wells P1	114	113	113	113
380-170783-2	Ka'amilo Wells P2	114	113	111	114
380-170783-3	FB: Ka'amilo Wells P1	106	117	113	113
380-170783-4	FB: Ka'amilo Wells P2	105	113	112	109
LCS 380-173756/26-A	Lab Control Sample	110	111	112	115
MBL 380-173756/24-A	Method Blank	107	112	110	112
MRL 380-173756/25-A	Lab Control Sample	106	109	105	106

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: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

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

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HFPODA (50-200)	C6PFDA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	13C7PUA (50-200)	PFDaA (50-200)
380-170783-1	Ka'amilo Wells P1	105	112	108	108	112	109	108	103
380-170783-2	Ka'amilo Wells P2	102	111	104	109	114	109	107	108
380-170783-3	FB: Ka'amilo Wells P1	107	114	111	114	116	114	113	110
380-170783-4	FB: Ka'amilo Wells P2	103	105	110	111	111	109	107	105
380-170810-B-7-A MS	Matrix Spike	110	111	116	108	113	109	112	107
380-170810-C-7-A MSD	Matrix Spike Duplicate	113	112	112	113	116	114	117	114
LCS 380-173760/22-A	Lab Control Sample	109	116	116	114	117	116	116	113
MBL 380-173760/20-A	Method Blank	107	116	117	111	114	117	115	109
MRL 380-173760/21-A	Lab Control Sample	110	119	115	121	120	117	116	111

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)
380-170783-1	Ka'amilo Wells P1	113	116	114	112	111	143	148	130
380-170783-2	Ka'amilo Wells P2	114	116	114	115	112	133	142	117
380-170783-3	FB: Ka'amilo Wells P1	115	117	116	114	114	129	131	120
380-170783-4	FB: Ka'amilo Wells P2	117	122	116	116	112	126	128	111
380-170810-B-7-A MS	Matrix Spike	115	123	114	116	113	132	125	116
380-170810-C-7-A MSD	Matrix Spike Duplicate	112	125	117	119	115	137	126	112
LCS 380-173760/22-A	Lab Control Sample	116	124	116	116	113	131	120	110
MBL 380-173760/20-A	Method Blank	117	115	111	117	115	127	119	111
MRL 380-173760/21-A	Lab Control Sample	117	119	114	120	114	123	121	113

Surrogate Legend

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

QC Sample Results

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

Job ID: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

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

Lab Sample ID: MBL 380-173760/20-A

Matrix: Water

Analysis Batch: 173893

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 173760

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		09/12/25 06:47	09/12/25 20:46	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		09/12/25 06:47	09/12/25 20:46	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		09/12/25 06:47	09/12/25 20:46	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		09/12/25 06:47	09/12/25 20:46	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		09/12/25 06:47	09/12/25 20:46	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		09/12/25 06:47	09/12/25 20:46	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		09/12/25 06:47	09/12/25 20:46	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		09/12/25 06:47	09/12/25 20:46	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		09/12/25 06:47	09/12/25 20:46	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		09/12/25 06:47	09/12/25 20:46	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		09/12/25 06:47	09/12/25 20:46	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		09/12/25 06:47	09/12/25 20:46	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		09/12/25 06:47	09/12/25 20:46	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		09/12/25 06:47	09/12/25 20:46	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		09/12/25 06:47	09/12/25 20:46	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		09/12/25 06:47	09/12/25 20:46	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		09/12/25 06:47	09/12/25 20:46	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		09/12/25 06:47	09/12/25 20:46	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		09/12/25 06:47	09/12/25 20:46	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		09/12/25 06:47	09/12/25 20:46	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		09/12/25 06:47	09/12/25 20:46	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		09/12/25 06:47	09/12/25 20:46	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		09/12/25 06:47	09/12/25 20:46	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		09/12/25 06:47	09/12/25 20:46	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		09/12/25 06:47	09/12/25 20:46	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	107		50 - 200	09/12/25 06:47	09/12/25 20:46	1
13C6 PFDA	116		50 - 200	09/12/25 06:47	09/12/25 20:46	1
13C5 PFHxA	117		50 - 200	09/12/25 06:47	09/12/25 20:46	1
13C4 PFHpA	111		50 - 200	09/12/25 06:47	09/12/25 20:46	1
13C8 PFOA	114		50 - 200	09/12/25 06:47	09/12/25 20:46	1
13C9 PFNA	117		50 - 200	09/12/25 06:47	09/12/25 20:46	1
13C7 PFUnA	115		50 - 200	09/12/25 06:47	09/12/25 20:46	1
13C2 PFDoA	109		50 - 200	09/12/25 06:47	09/12/25 20:46	1
13C4 PFBA	117		50 - 200	09/12/25 06:47	09/12/25 20:46	1
13C5 PFPeA	115		50 - 200	09/12/25 06:47	09/12/25 20:46	1
13C3 PFBS	111		50 - 200	09/12/25 06:47	09/12/25 20:46	1
13C3 PFHxS	117		50 - 200	09/12/25 06:47	09/12/25 20:46	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

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

Lab Sample ID: MBL 380-173760/20-A

Matrix: Water

Analysis Batch: 173893

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 173760

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	115		50 - 200	09/12/25 06:47	09/12/25 20:46	1
13C2-4:2-FTS	127		50 - 200	09/12/25 06:47	09/12/25 20:46	1
13C2-6:2-FTS	119		50 - 200	09/12/25 06:47	09/12/25 20:46	1
13C2-8:2-FTS	111		50 - 200	09/12/25 06:47	09/12/25 20:46	1

Lab Sample ID: LCS 380-173760/22-A

Matrix: Water

Analysis Batch: 173893

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 173760

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	121	110		ng/L		91	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	121	114		ng/L		94	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	121	115		ng/L		95	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	121	115		ng/L		95	70 - 130
Perfluorobutanesulfonic acid (PFBS)	121	114		ng/L		95	70 - 130
Perfluorodecanoic acid (PFDA)	121	111		ng/L		92	70 - 130
Perfluorododecanoic acid (PFDaA)	121	113		ng/L		94	70 - 130
Perfluoroheptanoic acid (PFHpA)	121	120		ng/L		100	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	121	117		ng/L		97	70 - 130
Perfluorohexanoic acid (PFHxA)	121	114		ng/L		95	70 - 130
Perfluorononanoic acid (PFNA)	121	112		ng/L		93	70 - 130
Perfluorooctanesulfonic acid (PFOS)	121	117		ng/L		97	70 - 130
Perfluorooctanoic acid (PFOA)	121	112		ng/L		92	70 - 130
Perfluoroundecanoic acid (PFUnA)	121	111		ng/L		92	70 - 130
Perfluorobutanoic acid (PFBA)	121	113		ng/L		94	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	121	116		ng/L		96	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	121	110		ng/L		91	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	121	113		ng/L		94	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	121	122		ng/L		101	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	121	118		ng/L		98	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	121	116		ng/L		96	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	121	110		ng/L		91	70 - 130
Perfluoropentanoic acid (PFPeA)	121	105		ng/L		87	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	121	116		ng/L		96	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

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

Lab Sample ID: LCS 380-173760/22-A

Matrix: Water

Analysis Batch: 173893

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 173760

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	121	116		ng/L		96	70 - 130
		LCS	LCS				
Isotope Dilution	%Recovery	Qualifier	Limits				
13C3 HFPO-DA	109		50 - 200				
13C6 PFDA	116		50 - 200				
13C5 PFHxA	116		50 - 200				
13C4 PFHpA	114		50 - 200				
13C8 PFOA	117		50 - 200				
13C9 PFNA	116		50 - 200				
13C7 PFUnA	116		50 - 200				
13C2 PFDoA	113		50 - 200				
13C4 PFBA	116		50 - 200				
13C5 PFPeA	124		50 - 200				
13C3 PFBS	116		50 - 200				
13C3 PFHxS	116		50 - 200				
13C8 PFOS	113		50 - 200				
13C2-4:2-FTS	131		50 - 200				
13C2-6:2-FTS	120		50 - 200				
13C2-8:2-FTS	110		50 - 200				

Lab Sample ID: MRL 380-173760/21-A

Matrix: Water

Analysis Batch: 173893

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 173760

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	1.82	J	ng/L		91	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	2.00	1.93	J	ng/L		96	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	1.80	J	ng/L		90	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	2.05	J	ng/L		102	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.03	J	ng/L		101	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	1.85	J	ng/L		92	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.07	J	ng/L		103	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	1.83	J	ng/L		91	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	1.87	J	ng/L		93	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	1.92	J	ng/L		96	50 - 150
Perfluorononanoic acid (PFNA)	2.00	1.96	J	ng/L		98	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.04	J	ng/L		102	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	1.93	J	ng/L		97	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	1.89	J	ng/L		94	50 - 150
Perfluorobutanoic acid (PFBA)	2.00	1.94	J	ng/L		97	50 - 150

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QC Sample Results

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

Job ID: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

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

Lab Sample ID: MRL 380-173760/21-A

Matrix: Water

Analysis Batch: 173893

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 173760

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.00	2.05	J	ng/L		103	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.00	1.94	J	ng/L		97	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.00	1.99	J	ng/L		99	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.00	2.14	J	ng/L		107	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	2.00	1.95	J	ng/L		97	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.00	1.99	J	ng/L		99	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.00	1.86	J	ng/L		93	50 - 150
Perfluoropentanoic acid (PFPeA)	2.00	1.91	J	ng/L		95	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.00	1.97	J	ng/L		98	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.00	1.78	J	ng/L		89	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	110		50 - 200
13C6 PFDA	119		50 - 200
13C5 PFHxA	115		50 - 200
13C4 PFHpA	121		50 - 200
13C8 PFOA	120		50 - 200
13C9 PFNA	117		50 - 200
13C7 PFUnA	116		50 - 200
13C2 PFDoA	111		50 - 200
13C4 PFBA	117		50 - 200
13C5 PFPeA	119		50 - 200
13C3 PFBS	114		50 - 200
13C3 PFHxS	120		50 - 200
13C8 PFOS	114		50 - 200
13C2-4:2-FTS	123		50 - 200
13C2-6:2-FTS	121		50 - 200
13C2-8:2-FTS	113		50 - 200

Lab Sample ID: 380-170810-B-7-A MS

Matrix: Water

Analysis Batch: 173893

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 173760

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	110		ng/L		92	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		120	114		ng/L		95	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		120	118		ng/L		98	70 - 130

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QC Sample Results

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

Job ID: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

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

Lab Sample ID: 380-170810-B-7-A MS

Matrix: Water

Analysis Batch: 173893

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 173760

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	<2.0		120	115		ng/L		96	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorobutanesulfonic acid (PFBS)	<2.0		120	121		ng/L		100	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		120	116		ng/L		96	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		120	118		ng/L		98	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		120	120		ng/L		100	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		120	117		ng/L		97	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		120	110		ng/L		91	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		120	113		ng/L		94	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		120	117		ng/L		97	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		120	115		ng/L		95	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		120	112		ng/L		93	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		120	115		ng/L		95	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		120	114		ng/L		94	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		120	116		ng/L		96	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		120	112		ng/L		93	70 - 130
Nonafluoro-3,6-dioxahexanoic acid (NFDHA)	<2.0		120	117		ng/L		97	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		120	116		ng/L		96	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		120	118		ng/L		98	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		120	110		ng/L		91	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		120	107		ng/L		89	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		120	116		ng/L		97	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		120	119		ng/L		99	70 - 130

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C3 HFPO-DA	110		50 - 200
13C6 PFDA	111		50 - 200
13C5 PFHxA	116		50 - 200
13C4 PFHpA	108		50 - 200
13C8 PFOA	113		50 - 200
13C9 PFNA	109		50 - 200
13C7 PFUnA	112		50 - 200
13C2 PFDoA	107		50 - 200
13C4 PFBA	115		50 - 200
13C5 PFPeA	123		50 - 200
13C3 PFBS	114		50 - 200
13C3 PFHxS	116		50 - 200
13C8 PFOS	113		50 - 200

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QC Sample Results

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

Job ID: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

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

Lab Sample ID: 380-170810-B-7-A MS

Matrix: Water

Analysis Batch: 173893

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 173760

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C2-4:2-FTS	132		50 - 200
13C2-6:2-FTS	125		50 - 200
13C2-8:2-FTS	116		50 - 200

Lab Sample ID: 380-170810-C-7-A MSD

Matrix: Water

Analysis Batch: 173893

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 173760

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 (11CI-PF3OUdS)	<2.0		121	111		ng/L		92	70 - 130	0	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9CI-PF3ONS)	<2.0		121	112		ng/L		93	70 - 130	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		121	116		ng/L		96	70 - 130	2	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		121	113		ng/L		93	70 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		121	115		ng/L		95	70 - 130	5	30
Perfluorodecanoic acid (PFDA)	<2.0		121	116		ng/L		96	70 - 130	0	30
Perfluorododecanoic acid (PFDaA)	<2.0		121	112		ng/L		93	70 - 130	6	30
Perfluoroheptanoic acid (PFHpA)	<2.0		121	118		ng/L		98	70 - 130	2	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		121	118		ng/L		97	70 - 130	1	30
Perfluorohexanoic acid (PFHxA)	<2.0		121	114		ng/L		94	70 - 130	3	30
Perfluorononanoic acid (PFNA)	<2.0		121	109		ng/L		91	70 - 130	3	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		121	114		ng/L		95	70 - 130	2	30
Perfluorooctanoic acid (PFOA)	<2.0		121	110		ng/L		91	70 - 130	4	30
Perfluoroundecanoic acid (PFUnA)	<2.0		121	107		ng/L		89	70 - 130	4	30
Perfluorobutanoic acid (PFBA)	<2.0		121	114		ng/L		95	70 - 130	1	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		121	114		ng/L		94	70 - 130	0	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		121	102		ng/L		85	70 - 130	13	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		121	110		ng/L		91	70 - 130	1	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		121	126		ng/L		104	70 - 130	7	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<2.0		121	113		ng/L		94	70 - 130	2	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		121	120		ng/L		99	70 - 130	2	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		121	107		ng/L		88	70 - 130	3	30
Perfluoropentanoic acid (PFPeA)	<2.0		121	107		ng/L		89	70 - 130	0	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		121	110		ng/L		91	70 - 130	6	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		121	111		ng/L		92	70 - 130	8	30

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QC Sample Results

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

Job ID: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

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

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C3 HFPO-DA	113		50 - 200
13C6 PFDA	112		50 - 200
13C5 PFHxA	112		50 - 200
13C4 PFHpA	113		50 - 200
13C8 PFOA	116		50 - 200
13C9 PFNA	114		50 - 200
13C7 PFUnA	117		50 - 200
13C2 PFDoA	114		50 - 200
13C4 PFBA	112		50 - 200
13C5 PFPeA	125		50 - 200
13C3 PFBS	117		50 - 200
13C3 PFHxS	119		50 - 200
13C8 PFOS	115		50 - 200
13C2-4:2-FTS	137		50 - 200
13C2-6:2-FTS	126		50 - 200
13C2-8:2-FTS	112		50 - 200

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

Lab Sample ID: MBL 380-173756/24-A
Matrix: Water
Analysis Batch: 173836

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 173756

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		09/12/25 03:04	09/12/25 14:12	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		09/12/25 03:04	09/12/25 14:12	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		09/12/25 03:04	09/12/25 14:12	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		09/12/25 03:04	09/12/25 14:12	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		09/12/25 03:04	09/12/25 14:12	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		09/12/25 03:04	09/12/25 14:12	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		09/12/25 03:04	09/12/25 14:12	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		09/12/25 03:04	09/12/25 14:12	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		09/12/25 03:04	09/12/25 14:12	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		09/12/25 03:04	09/12/25 14:12	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		09/12/25 03:04	09/12/25 14:12	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		09/12/25 03:04	09/12/25 14:12	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		09/12/25 03:04	09/12/25 14:12	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		09/12/25 03:04	09/12/25 14:12	1
Perfluorotridecanoic acid (PFTrDA)	<0.36		2.0	ng/L		09/12/25 03:04	09/12/25 14:12	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		09/12/25 03:04	09/12/25 14:12	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		09/12/25 03:04	09/12/25 14:12	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		09/12/25 03:04	09/12/25 14:12	1
Surrogate	MBL %Recovery	MBL Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	107		70 - 130			09/12/25 03:04	09/12/25 14:12	1
13C2 PFHxA	112		70 - 130			09/12/25 03:04	09/12/25 14:12	1
13C2 PFDA	110		70 - 130			09/12/25 03:04	09/12/25 14:12	1

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QC Sample Results

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

Job ID: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

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

Lab Sample ID: MBL 380-173756/24-A

Matrix: Water

Analysis Batch: 173836

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 173756

Surrogate	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3-GenX	112		70 - 130	09/12/25 03:04	09/12/25 14:12	1

Lab Sample ID: LCS 380-173756/26-A

Matrix: Water

Analysis Batch: 173836

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 173756

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	25.2	26.4		ng/L		105	70 - 130
Dimer Acid (HFPO-DA/GenX)							
Perfluorooctanesulfonic acid (PFOS)	25.2	26.0		ng/L		103	70 - 130
Perfluoroundecanoic acid (PFUnA)	25.2	25.8		ng/L		103	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.2	25.4		ng/L		101	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.2	26.3		ng/L		105	70 - 130
Perfluorohexanoic acid (PFHxA)	25.2	26.3		ng/L		104	70 - 130
Perfluorododecanoic acid (PFDoA)	25.2	25.2		ng/L		100	70 - 130
Perfluorooctanoic acid (PFOA)	25.2	25.7		ng/L		102	70 - 130
Perfluorodecanoic acid (PFDA)	25.2	26.3		ng/L		104	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	25.2	26.4		ng/L		105	70 - 130
Perfluorobutanesulfonic acid (PFBS)	25.2	26.9		ng/L		107	70 - 130
Perfluoroheptanoic acid (PFHpA)	25.2	26.9		ng/L		107	70 - 130
Perfluorononanoic acid (PFNA)	25.2	25.7		ng/L		102	70 - 130
Perfluorotetradecanoic acid (PFTA)	25.2	22.6		ng/L		90	70 - 130
Perfluorotridecanoic acid (PFTrDA)	25.2	27.0		ng/L		107	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	25.2	25.9		ng/L		103	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	25.2	25.8		ng/L		103	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	25.2	25.7		ng/L		102	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
d5-NEtFOSAA	110		70 - 130
13C2 PFHxA	111		70 - 130
13C2 PFDA	112		70 - 130
13C3-GenX	115		70 - 130

QC Sample Results

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

Job ID: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

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

Lab Sample ID: MRL 380-173756/25-A

Matrix: Water

Analysis Batch: 173836

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 173756

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	1.99	J	ng/L		99	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.11	J	ng/L		105	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.03	J	ng/L		101	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.01	1.92	J	ng/L		96	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.01	2.11	J	ng/L		105	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.05	J	ng/L		102	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.00	J	ng/L		99	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.08	J	ng/L		103	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	1.98	J	ng/L		99	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.08	J	ng/L		103	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	1.96	J	ng/L		97	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.05	J	ng/L		102	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.02	J	ng/L		101	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.01	1.88	J	ng/L		93	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.01	2.10	J	ng/L		104	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	2.06	J	ng/L		102	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.98	J	ng/L		98	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	1.93	J	ng/L		96	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
d5-NEtFOSAA	106		70 - 130
13C2 PFHxA	109		70 - 130
13C2 PFDA	105		70 - 130
13C3-GenX	106		70 - 130

Lab Sample ID: 380-170765-B-1-A MS

Matrix: Water

Analysis Batch: 173836

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 173756

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	26.7		ng/L		106	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		25.1	28.7		ng/L		108	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		25.1	25.4		ng/L		101	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.1	25.8		ng/L		103	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

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

Lab Sample ID: 380-170765-B-1-A MS

Matrix: Water

Analysis Batch: 173836

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 173756

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits		
	Result	Qualifier	Added	Result	Qualifier							
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		25.1	26.4		ng/L		105	70 - 130			
Perfluorohexanoic acid (PFHxA)	<2.0		25.1	26.8		ng/L		104	70 - 130			
Perfluorododecanoic acid (PFDoA)	<2.0		25.1	26.1		ng/L		104	70 - 130			
Perfluorooctanoic acid (PFOA)	<2.0		25.1	25.7		ng/L		103	70 - 130			
Perfluorodecanoic acid (PFDA)	<2.0		25.1	25.5		ng/L		101	70 - 130			
Perfluorohexanesulfonic acid (PFHxS)	<2.0		25.1	26.8		ng/L		104	70 - 130			
Perfluorobutanesulfonic acid (PFBS)	<2.0		25.1	27.3		ng/L		107	70 - 130			
Perfluoroheptanoic acid (PFHpA)	<2.0		25.1	26.6		ng/L		106	70 - 130			
Perfluorononanoic acid (PFNA)	<2.0		25.1	25.7		ng/L		102	70 - 130			
Perfluorotetradecanoic acid (PFTA)	<2.0		25.1	23.3		ng/L		93	70 - 130			
Perfluorotridecanoic acid (PFTrDA)	<2.0		25.1	26.1		ng/L		104	70 - 130			
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		25.1	26.2		ng/L		105	70 - 130			
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		25.1	24.8		ng/L		99	70 - 130			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		25.1	26.4		ng/L		105	70 - 130			
		MS	MS									
Surrogate	%Recovery	Qualifier	Limits									
d5-NEtFOSAA	112		70 - 130									
13C2 PFHxA	118		70 - 130									
13C2 PFDA	110		70 - 130									
13C3-GenX	116		70 - 130									

Lab Sample ID: 380-170765-C-1-A MSD

Matrix: Water

Analysis Batch: 173836

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 173756

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		25.2	26.9		ng/L		107	70 - 130	1	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		25.2	28.1		ng/L		105	70 - 130	2	30
Perfluoroundecanoic acid (PFUnA)	<2.0		25.2	25.8		ng/L		102	70 - 130	2	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.2	25.7		ng/L		102	70 - 130	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		25.2	25.4		ng/L		101	70 - 130	4	30
Perfluorohexanoic acid (PFHxA)	<2.0		25.2	27.5		ng/L		107	70 - 130	3	30
Perfluorododecanoic acid (PFDoA)	<2.0		25.2	25.6		ng/L		101	70 - 130	2	30
Perfluorooctanoic acid (PFOA)	<2.0		25.2	26.7		ng/L		106	70 - 130	4	30
Perfluorodecanoic acid (PFDA)	<2.0		25.2	25.9		ng/L		103	70 - 130	2	30

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

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

Lab Sample ID: 380-170765-C-1-A MSD

Matrix: Water

Analysis Batch: 173836

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 173756

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluorohexanesulfonic acid (PFHxS)	<2.0		25.2	26.8		ng/L		104	70 - 130	0	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		25.2	27.1		ng/L		106	70 - 130	1	30
Perfluoroheptanoic acid (PFHpA)	<2.0		25.2	26.4		ng/L		105	70 - 130	1	30
Perfluorononanoic acid (PFNA)	<2.0		25.2	26.6		ng/L		106	70 - 130	4	30
Perfluorotetradecanoic acid (PFTA)	<2.0		25.2	24.3		ng/L		96	70 - 130	4	30
Perfluorotridecanoic acid (PFTTrDA)	<2.0		25.2	26.7		ng/L		106	70 - 130	2	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		25.2	25.4		ng/L		101	70 - 130	3	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		25.2	25.2		ng/L		100	70 - 130	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		25.2	26.1		ng/L		103	70 - 130	1	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
d5-NEtFOSAA	108		70 - 130
13C2 PFHxA	121		70 - 130
13C2 PFDA	117		70 - 130
13C3-GenX	118		70 - 130

QC Association Summary

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

Job ID: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

LCMS

Prep Batch: 173756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-170783-1	Ka'amilo Wells P1	Total/NA	Water	537.1 DW	
380-170783-2	Ka'amilo Wells P2	Total/NA	Water	537.1 DW	
380-170783-3	FB: Ka'amilo Wells P1	Total/NA	Water	537.1 DW	
380-170783-4	FB: Ka'amilo Wells P2	Total/NA	Water	537.1 DW	
MBL 380-173756/24-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-173756/26-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-173756/25-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-170765-B-1-A MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-170765-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Prep Batch: 173760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-170783-1	Ka'amilo Wells P1	Total/NA	Water	533	
380-170783-2	Ka'amilo Wells P2	Total/NA	Water	533	
380-170783-3	FB: Ka'amilo Wells P1	Total/NA	Water	533	
380-170783-4	FB: Ka'amilo Wells P2	Total/NA	Water	533	
MBL 380-173760/20-A	Method Blank	Total/NA	Water	533	
LCS 380-173760/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-173760/21-A	Lab Control Sample	Total/NA	Water	533	
380-170810-B-7-A MS	Matrix Spike	Total/NA	Water	533	
380-170810-C-7-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 173836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-170783-1	Ka'amilo Wells P1	Total/NA	Water	537.1	173756
380-170783-2	Ka'amilo Wells P2	Total/NA	Water	537.1	173756
380-170783-3	FB: Ka'amilo Wells P1	Total/NA	Water	537.1	173756
380-170783-4	FB: Ka'amilo Wells P2	Total/NA	Water	537.1	173756
MBL 380-173756/24-A	Method Blank	Total/NA	Water	537.1	173756
LCS 380-173756/26-A	Lab Control Sample	Total/NA	Water	537.1	173756
MRL 380-173756/25-A	Lab Control Sample	Total/NA	Water	537.1	173756
380-170765-B-1-A MS	Matrix Spike	Total/NA	Water	537.1	173756
380-170765-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1	173756

Analysis Batch: 173893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-170783-1	Ka'amilo Wells P1	Total/NA	Water	533	173760
380-170783-2	Ka'amilo Wells P2	Total/NA	Water	533	173760
380-170783-3	FB: Ka'amilo Wells P1	Total/NA	Water	533	173760
380-170783-4	FB: Ka'amilo Wells P2	Total/NA	Water	533	173760
MBL 380-173760/20-A	Method Blank	Total/NA	Water	533	173760
LCS 380-173760/22-A	Lab Control Sample	Total/NA	Water	533	173760
MRL 380-173760/21-A	Lab Control Sample	Total/NA	Water	533	173760
380-170810-B-7-A MS	Matrix Spike	Total/NA	Water	533	173760
380-170810-C-7-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	173760

Lab Chronicle

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

Job ID: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

Client Sample ID: Ka'amilo Wells P1

Lab Sample ID: 380-170783-1

Date Collected: 09/08/25 11:53

Matrix: Water

Date Received: 09/10/25 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			173760	XTD8	EA POM	09/12/25 06:47
Total/NA	Analysis	533		1	173893	Y5FM	EA POM	09/12/25 22:55
Total/NA	Prep	537.1 DW			173756	G9MN	EA POM	09/12/25 03:04
Total/NA	Analysis	537.1		1	173836	Y5FM	EA POM	09/12/25 17:35

Client Sample ID: Ka'amilo Wells P2

Lab Sample ID: 380-170783-2

Date Collected: 09/08/25 12:38

Matrix: Water

Date Received: 09/10/25 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			173760	XTD8	EA POM	09/12/25 06:47
Total/NA	Analysis	533		1	173893	Y5FM	EA POM	09/12/25 23:06
Total/NA	Prep	537.1 DW			173756	G9MN	EA POM	09/12/25 03:04
Total/NA	Analysis	537.1		1	173836	Y5FM	EA POM	09/12/25 17:45

Client Sample ID: FB: Ka'amilo Wells P1

Lab Sample ID: 380-170783-3

Date Collected: 09/08/25 11:53

Matrix: Water

Date Received: 09/10/25 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			173760	XTD8	EA POM	09/12/25 06:47
Total/NA	Analysis	533		1	173893	Y5FM	EA POM	09/12/25 23:16
Total/NA	Prep	537.1 DW			173756	G9MN	EA POM	09/12/25 03:04
Total/NA	Analysis	537.1		1	173836	Y5FM	EA POM	09/12/25 17:56

Client Sample ID: FB: Ka'amilo Wells P2

Lab Sample ID: 380-170783-4

Date Collected: 09/08/25 12:38

Matrix: Water

Date Received: 09/10/25 09:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			173760	XTD8	EA POM	09/12/25 06:47
Total/NA	Analysis	533		1	173893	Y5FM	EA POM	09/12/25 23:38
Total/NA	Prep	537.1 DW			173756	G9MN	EA POM	09/12/25 03:04
Total/NA	Analysis	537.1		1	173836	Y5FM	EA POM	09/12/25 18:07

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: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

Laboratory: Eurofins Eaton Analytical Pomona

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

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

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

Method Summary

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

Job ID: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

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: 380-170783-1
SDG: PFAS: Ka'amilo Wells P1/P2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-170783-1	Ka'amilo Wells P1	Water	09/08/25 11:53	09/10/25 09:35	Hawaii
380-170783-2	Ka'amilo Wells P2	Water	09/08/25 12:38	09/10/25 09:35	Hawaii
380-170783-3	FB: Ka'amilo Wells P1	Water	09/08/25 11:53	09/10/25 09:35	Hawaii
380-170783-4	FB: Ka'amilo Wells P2	Water	09/08/25 12:38	09/10/25 09:35	Hawaii

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

Chain of Custody Record

Client Information		Sampler bailey	Lab PM Arada Rachelle	Carrier Tracking No(s)	COC No 380-27941-2757 2											
Client Contact: kirk iwamoto		Phone: +1 808 748 5840	E-Mail: Rachelle.Arada@et.euronisus.com	State of Origin:	Page: Page 2 of 2											
Company City & County of Honolulu		PWSID:		Job #:												
Address: 630 South Beretania Street; Chemistry Lab		Analysis Requested														
City: Honolulu		Due Date Requested														
State, Zip: HI 96843		TAT Requested (days) RUSH														
Phone: 808-748-5840 (tel)		Compliance Project: ☐ No														
Email: kiwamoto@hbws.org		PO #: C20525101 exp 05312023														
Project Name: RED-HILL/HBWS sites Event Desc: RUSH Weekly Red Hill		WO #:														
Site:		Project #: 38001111														
		SSOW#:														
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Solid, Other)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT - 626 PAH Physile LL (EAL) + TICs	80158_GRO_LL - (MOD) GRO	80158_DRO_LL_CS HNL Ranges C10-C24/C24-C36/C8	C18	626 2_PREG (MOD) 626plus PLUS TICs	537 1_DW_PREG - 537 1 Full List	533 All Analytes	Total Number of Containers	Special Instructions/Note:	
Ka'amilo Wells P1	8-Sep-2025	1153	G	Water								3 3				
Ka'amilo Wells P2	8-Sep-2025	1238	G	Water								3 3				
FB: Ka'amilo Wells P1	8-Sep-2025	1153		Water								1 1				380-170783 COC
FB: Ka'amilo Wells P2	8-Sep-2025	1238		Water								1 1				
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/Time: 09/15/2025 1400 Date: 09/15/2025 1400																
Company: HBWS Company: HBWS																
Relinquished by																
Date/Time: Date/Time: Date/Time:																
Custody Seals Intact: ☐ Yes ☐ No																
Custody Seal No																
Cooler Temperature(s) °C and Other Remarks: 751A 2.3°-0.0°-2.3°																
Received by: Received by: Received by:																
Date/Time: Date/Time: Date/Time:																
Company: Company: Company:																
Method of Shipment: FEDEX 8842 4078 6580																
Date/Time: 09/10/25 09:35 Date/Time: 09/10/25 09:35																
Company: E-CAF Company: E-CAF																
Date/Time: Date/Time: Date/Time:																
Company: Company: Company:																
Cooler Temperature(s) °C and Other Remarks: 751A 2.3°-0.0°-2.3°																
Received by: Received by: Received by:																
Date/Time: Date/Time: Date/Time:																
Company: Company: Company:																

Chain of Custody Record

[illegible]

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-170783-1

SDG Number: PFAS: Ka'amilo Wells P1/P2

Login Number: 170783

List Number: 1

Creator: Hernandez, Orlando

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").	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	