

ANALYTICAL REPORT

PREPARED FOR

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

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JOB DESCRIPTION

RED-HILL
Weekly PFAS

JOB NUMBER

380-147449-1

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

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Definitions/Glossary

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

Job ID: 380-147449-1
SDG: Weekly PFAS

Qualifiers

LCMS

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

Glossary

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

Case Narrative

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

Job ID: 380-147449-1

Job ID: 380-147449-1

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Job Narrative 380-147449-1

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

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

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

Receipt

The samples were received on 4/24/2025 9:34 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 1.7°C.

PFAS

Method 537.1_DW_PREC: The following QC issues in 380-149432 OR 380-149466 were observed:

Surrogate Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX) recovery for the following samples: MBL 380-149432/1-A (380-2257224) and LCS 380-149432/3-A (380-2257226) was below method limits (low bias). Extracts were re-analyzed for confirmation. No volume available for re-extraction of affected samples FB Aiea Wells Pumps 1&2 (260) (380-147449-3) and FB Ka'amilo Wells (380-147449-4). Result not acceptable per method. PFAS 537.1 data excluded due to this QC failure, 533 data was reported as there were no noted QC issues.

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

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Detection Summary

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-147449-1

No Detections.

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-147449-2

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	2.8		2.0	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	2.7		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.2		2.0	ng/L	1		533	Total/NA
Perfluorooctanoic acid (PFOA)	2.6		2.0	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	2.4		2.0	ng/L	1		533	Total/NA

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

Lab Sample ID: 380-147449-3

No Detections.

Client Sample ID: FB Ka'amilo Wells

Lab Sample ID: 380-147449-4

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-147449-1

Date Collected: 04/21/25 11:13

Matrix: Water

Date Received: 04/24/25 09:34

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		04/29/25 07:00	04/30/25 10:33	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9CI-PF3ONS)	<2.0		2.0	ng/L		04/29/25 07:00	04/30/25 10:33	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		04/29/25 07:00	04/30/25 10:33	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		04/29/25 07:00	04/30/25 10:33	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		04/29/25 07:00	04/30/25 10:33	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		04/29/25 07:00	04/30/25 10:33	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		04/29/25 07:00	04/30/25 10:33	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		04/29/25 07:00	04/30/25 10:33	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		04/29/25 07:00	04/30/25 10:33	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		04/29/25 07:00	04/30/25 10:33	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		04/29/25 07:00	04/30/25 10:33	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		04/29/25 07:00	04/30/25 10:33	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		04/29/25 07:00	04/30/25 10:33	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		04/29/25 07:00	04/30/25 10:33	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		04/29/25 07:00	04/30/25 10:33	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		04/29/25 07:00	04/30/25 10:33	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		04/29/25 07:00	04/30/25 10:33	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		04/29/25 07:00	04/30/25 10:33	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		04/29/25 07:00	04/30/25 10:33	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		04/29/25 07:00	04/30/25 10:33	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		04/29/25 07:00	04/30/25 10:33	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		04/29/25 07:00	04/30/25 10:33	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		04/29/25 07:00	04/30/25 10:33	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		04/29/25 07:00	04/30/25 10:33	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		04/29/25 07:00	04/30/25 10:33	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	74		50 - 200	04/29/25 07:00	04/30/25 10:33	1
13C6 PFDA	79		50 - 200	04/29/25 07:00	04/30/25 10:33	1
13C5 PFHxA	86		50 - 200	04/29/25 07:00	04/30/25 10:33	1
13C4 PFHpA	86		50 - 200	04/29/25 07:00	04/30/25 10:33	1
13C8 PFOA	84		50 - 200	04/29/25 07:00	04/30/25 10:33	1
13C9 PFNA	79		50 - 200	04/29/25 07:00	04/30/25 10:33	1
13C7 PFUnA	74		50 - 200	04/29/25 07:00	04/30/25 10:33	1
13C2 PFDoA	78		50 - 200	04/29/25 07:00	04/30/25 10:33	1
13C4 PFBA	93		50 - 200	04/29/25 07:00	04/30/25 10:33	1
13C5 PFPeA	83		50 - 200	04/29/25 07:00	04/30/25 10:33	1
13C3 PFBS	104		50 - 200	04/29/25 07:00	04/30/25 10:33	1
13C3 PFHxS	114		50 - 200	04/29/25 07:00	04/30/25 10:33	1
13C8 PFOS	109		50 - 200	04/29/25 07:00	04/30/25 10:33	1

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Client Sample Results

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-147449-1

Date Collected: 04/21/25 11:13

Matrix: Water

Date Received: 04/24/25 09:34

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	119		50 - 200	04/29/25 07:00	04/30/25 10:33	1
13C2-6:2-FTS	119		50 - 200	04/29/25 07:00	04/30/25 10:33	1
13C2-8:2-FTS	103		50 - 200	04/29/25 07:00	04/30/25 10:33	1

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-147449-2

Date Collected: 04/21/25 11:42

Matrix: Water

Date Received: 04/24/25 09:34

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:04	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:04	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:04	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:04	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		05/03/25 14:56	05/05/25 07:31	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:04	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:04	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:04	1
Perfluorohexanesulfonic acid (PFHxS)	2.8		2.0	ng/L		04/26/25 12:50	04/27/25 18:04	1
Perfluorohexanoic acid (PFHxA)	2.7		2.0	ng/L		04/26/25 12:50	04/27/25 18:04	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:04	1
Perfluorooctanesulfonic acid (PFOS)	3.2		2.0	ng/L		04/26/25 12:50	04/27/25 18:04	1
Perfluorooctanoic acid (PFOA)	2.6		2.0	ng/L		04/26/25 12:50	04/27/25 18:04	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:04	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:04	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:04	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:04	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:04	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:04	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:04	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:04	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:04	1
Perfluoropentanoic acid (PFPeA)	2.4		2.0	ng/L		04/26/25 12:50	04/27/25 18:04	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:04	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:04	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	59		50 - 200			04/26/25 12:50	04/27/25 18:04	1
13C6 PFDA	50		50 - 200			04/26/25 12:50	04/27/25 18:04	1

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Client Sample Results

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

Job ID: 380-147449-1
SDG: Weekly PFAS

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-147449-2

Date Collected: 04/21/25 11:42

Matrix: Water

Date Received: 04/24/25 09:34

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C5 PFHxA	72		50 - 200	04/26/25 12:50	04/27/25 18:04	1
13C4 PFHpA	68		50 - 200	04/26/25 12:50	04/27/25 18:04	1
13C8 PFOA	60		50 - 200	04/26/25 12:50	04/27/25 18:04	1
13C9 PFNA	52		50 - 200	04/26/25 12:50	04/27/25 18:04	1
13C7 PFUnA	54		50 - 200	04/26/25 12:50	04/27/25 18:04	1
13C2 PFDoA	60		50 - 200	04/26/25 12:50	04/27/25 18:04	1
13C4 PFBA	74		50 - 200	04/26/25 12:50	04/27/25 18:04	1
13C5 PFPeA	72		50 - 200	04/26/25 12:50	04/27/25 18:04	1
13C3 PFBS	98		50 - 200	04/26/25 12:50	04/27/25 18:04	1
13C3 PFHxS	97		50 - 200	04/26/25 12:50	04/27/25 18:04	1
13C8 PFOS	95		50 - 200	04/26/25 12:50	04/27/25 18:04	1
13C2-4:2-FTS	114		50 - 200	04/26/25 12:50	04/27/25 18:04	1
13C2-6:2-FTS	96		50 - 200	04/26/25 12:50	04/27/25 18:04	1
13C2-8:2-FTS	98		50 - 200	04/26/25 12:50	04/27/25 18:04	1

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

Lab Sample ID: 380-147449-3

Date Collected: 04/21/25 11:13

Matrix: Water

Date Received: 04/24/25 09:34

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosfluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:14	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:14	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:14	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:14	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:14	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:14	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:14	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:14	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:14	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:14	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:14	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:14	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:14	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:14	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:14	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:14	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:14	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:14	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:14	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:14	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:14	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-147449-3

Date Collected: 04/21/25 11:13

Matrix: Water

Date Received: 04/24/25 09:34

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:14	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:14	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:14	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:14	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	71		50 - 200			04/26/25 12:50	04/27/25 18:14	1
13C6 PFDA	98		50 - 200			04/26/25 12:50	04/27/25 18:14	1
13C5 PFHxA	100		50 - 200			04/26/25 12:50	04/27/25 18:14	1
13C4 PFHpA	99		50 - 200			04/26/25 12:50	04/27/25 18:14	1
13C8 PFOA	94		50 - 200			04/26/25 12:50	04/27/25 18:14	1
13C9 PFNA	97		50 - 200			04/26/25 12:50	04/27/25 18:14	1
13C7 PFUnA	95		50 - 200			04/26/25 12:50	04/27/25 18:14	1
13C2 PFDoA	86		50 - 200			04/26/25 12:50	04/27/25 18:14	1
13C4 PFBA	97		50 - 200			04/26/25 12:50	04/27/25 18:14	1
13C5 PFPeA	95		50 - 200			04/26/25 12:50	04/27/25 18:14	1
13C3 PFBS	95		50 - 200			04/26/25 12:50	04/27/25 18:14	1
13C3 PFHxS	96		50 - 200			04/26/25 12:50	04/27/25 18:14	1
13C8 PFOS	97		50 - 200			04/26/25 12:50	04/27/25 18:14	1
13C2-4:2-FTS	113		50 - 200			04/26/25 12:50	04/27/25 18:14	1
13C2-6:2-FTS	100		50 - 200			04/26/25 12:50	04/27/25 18:14	1
13C2-8:2-FTS	93		50 - 200			04/26/25 12:50	04/27/25 18:14	1

Client Sample ID: FB Ka'amilo Wells

Lab Sample ID: 380-147449-4

Date Collected: 04/21/25 11:42

Matrix: Water

Date Received: 04/24/25 09:34

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosfluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:24	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:24	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:24	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:24	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:24	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:24	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:24	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:24	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:24	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:24	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:24	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:24	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:24	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:24	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:24	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:24	1

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Client Sample Results

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

Job ID: 380-147449-1
SDG: Weekly PFAS

Client Sample ID: FB Ka'amilo Wells

Lab Sample ID: 380-147449-4

Date Collected: 04/21/25 11:42

Matrix: Water

Date Received: 04/24/25 09:34

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:24	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:24	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:24	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:24	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:24	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:24	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:24	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:24	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		04/26/25 12:50	04/27/25 18:24	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	76		50 - 200			04/26/25 12:50	04/27/25 18:24	1
13C6 PFDA	96		50 - 200			04/26/25 12:50	04/27/25 18:24	1
13C5 PFHxA	97		50 - 200			04/26/25 12:50	04/27/25 18:24	1
13C4 PFHpA	98		50 - 200			04/26/25 12:50	04/27/25 18:24	1
13C8 PFOA	96		50 - 200			04/26/25 12:50	04/27/25 18:24	1
13C9 PFNA	96		50 - 200			04/26/25 12:50	04/27/25 18:24	1
13C7 PFUnA	93		50 - 200			04/26/25 12:50	04/27/25 18:24	1
13C2 PFDoA	86		50 - 200			04/26/25 12:50	04/27/25 18:24	1
13C4 PFBA	100		50 - 200			04/26/25 12:50	04/27/25 18:24	1
13C5 PFPeA	97		50 - 200			04/26/25 12:50	04/27/25 18:24	1
13C3 PFBS	95		50 - 200			04/26/25 12:50	04/27/25 18:24	1
13C3 PFHxS	97		50 - 200			04/26/25 12:50	04/27/25 18:24	1
13C8 PFOS	94		50 - 200			04/26/25 12:50	04/27/25 18:24	1
13C2-4:2-FTS	108		50 - 200			04/26/25 12:50	04/27/25 18:24	1
13C2-6:2-FTS	96		50 - 200			04/26/25 12:50	04/27/25 18:24	1
13C2-8:2-FTS	89		50 - 200			04/26/25 12:50	04/27/25 18:24	1

Action Limit Summary

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-147449-1

Compliance Check

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

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

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-147449-2

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)	2.8		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.2		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	2.6		ng/L	4	2.0	533	Total/NA

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

Lab Sample ID: 380-147449-3

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

Client Sample ID: FB Ka'amilo Wells

Lab Sample ID: 380-147449-4

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 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

Eurofins Eaton Analytical Pomona

Surrogate Summary

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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)
380-147443-E-1-A MS	Matrix Spike	107	114	120	89
380-147443-F-1-A MSD	Matrix Spike Duplicate	105	108	114	80
380-147449-1	AIEA WELLS PUMPS 1&2 (260) P2	101	107	105	88
380-147449-2	Ka'amilo Wells	94	108	100	93
380-147449-3	FB Aiea Wells Pumps 1&2 (260)	76	90	104	56 S1-
380-147449-4	FB Ka'amilo Wells	104	111	117	83
380-147590-M-1-A MS	Matrix Spike	83	96	99	82
380-147590-N-1-A MSD	Matrix Spike Duplicate	85	103	98	88
LCS 380-149432/3-A	Lab Control Sample	94	103	118	69 S1-
LCS 380-149587/22-A	Lab Control Sample	87	97	98	82
MBL 380-149432/1-A	Method Blank	83	93	112	60 S1-
MBL 380-149587/20-A	Method Blank	91	103	99	87
MRL 380-149432/2-A	Lab Control Sample	96	113	112	75
MRL 380-149587/21-A	Lab Control Sample	88	95	98	77
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: 380-147449-1
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)	PFDaA (50-200)
380-147449-1	AIEA WELLS PUMPS 1&2 (260)	74	79	86	86	84	79	74	78
380-147449-2	Ka'amilo Wells	59	50	72	68	60	52	54	60
380-147449-3	FB Aiea Wells Pumps 1&2 (260)	71	98	100	99	94	97	95	86
380-147449-4	FB Ka'amilo Wells	76	96	97	98	96	96	93	86
380-147455-B-9-A MS	Matrix Spike	91	87	97	96	88	85	88	85
380-147455-C-9-A MSD	Matrix Spike Duplicate	92	77	97	93	84	82	78	74
380-147587-B-4-A MS	Matrix Spike	91	95	101	102	101	98	88	90
380-147587-C-4-A MSD	Matrix Spike Duplicate	78	88	91	89	88	87	86	88
380-148596-B-1-A MS	Matrix Spike	78	85	92	91	87	85	86	91
380-148596-B-1-B MSD	Matrix Spike Duplicate	74	84	87	88	83	83	86	94
LCS 380-149460/24-A	Lab Control Sample	80	105	103	109	99	106	102	97
LCS 380-149756/22-A	Lab Control Sample	91	93	102	101	101	98	93	91
LCS 380-150550/22-A	Lab Control Sample	69	106	106	108	103	106	104	105
MBL 380-149460/22-A	Method Blank	72	101	107	104	100	102	94	93
MBL 380-149756/20-A	Method Blank	89	101	110	104	107	105	100	94
MBL 380-150550/20-A	Method Blank	74	109	112	110	110	109	108	108
MRL 380-149460/23-A	Lab Control Sample	63	89	91	93	87	92	87	81
MRL 380-149756/21-A	Lab Control Sample	86	100	103	103	104	102	94	89
MRL 380-150550/21-A	Lab Control Sample	57	106	111	110	109	107	104	105

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PFBA (50-200)	PFPaA (50-200)	C3PFBS (50-200)	C3PFHS (50-200)	C8PFOS (50-200)	42FTS (50-200)	62FTS (50-200)	82FTS (50-200)
380-147449-1	AIEA WELLS PUMPS 1&2 (260)	93	83	104	114	109	119	119	103
380-147449-2	Ka'amilo Wells	74	72	98	97	95	114	96	98
380-147449-3	FB Aiea Wells Pumps 1&2 (260)	97	95	95	96	97	113	100	93
380-147449-4	FB Ka'amilo Wells	100	97	95	97	94	108	96	89
380-147455-B-9-A MS	Matrix Spike	99	121	98	104	103	122	109	105
380-147455-C-9-A MSD	Matrix Spike Duplicate	98	116	96	98	100	117	106	102
380-147587-B-4-A MS	Matrix Spike	104	105	108	112	107	127	120	102
380-147587-C-4-A MSD	Matrix Spike Duplicate	95	94	108	113	108	120	113	103
380-148596-B-1-A MS	Matrix Spike	95	95	122	116	114	130	125	118
380-148596-B-1-B MSD	Matrix Spike Duplicate	91	83	107	110	112	119	117	113
LCS 380-149460/24-A	Lab Control Sample	102	99	101	102	101	113	101	100
LCS 380-149756/22-A	Lab Control Sample	101	102	111	104	107	115	111	106
LCS 380-150550/22-A	Lab Control Sample	105	103	112	113	113	125	124	119
MBL 380-149460/22-A	Method Blank	103	101	101	104	100	125	106	101
MBL 380-149756/20-A	Method Blank	105	103	112	110	110	120	115	103
MBL 380-150550/20-A	Method Blank	110	112	120	121	116	128	133	124
MRL 380-149460/23-A	Lab Control Sample	91	89	97	101	101	109	98	96
MRL 380-149756/21-A	Lab Control Sample	105	105	110	111	104	118	110	100
MRL 380-150550/21-A	Lab Control Sample	108	105	116	117	118	134	130	120

Surrogate Legend

HFPODA = 13C3 HFPO-DA
C6PFDA = 13C6 PFDA
13C5PHA = 13C5 PFHxA
C4PFHA = 13C4 PFHpA
C8PFOA = 13C8 PFOA
C9PFNA = 13C9 PFNA
13C7PUA = 13C7 PFUnA

Eurofins Eaton Analytical Pomona

Isotope Dilution Summary

Client: City & County of Honolulu

Project/Site: RED-HILL

PFD_oA = 13C₂ PFD_oA

PFBA = 13C₄ PFBA

PFP_eA = 13C₅ PFP_eA

C₃PFBS = 13C₃ PFBS

C₃PFHS = 13C₃ PFH_xS

C₈PFOS = 13C₈ PFOS

4₂FTS = 13C₂-4:2-FTS

6₂FTS = 13C₂-6:2-FTS

8₂FTS = 13C₂-8:2-FTS

Job ID: 380-147449-1

SDG: Weekly PFAS

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QC Sample Results

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-149460/22-A

Matrix: Water

Analysis Batch: 149502

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 149460

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS)	<0.30		2.0	ng/L		04/26/25 12:50	04/27/25 16:17	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9CI-PF3ONS)	<0.30		2.0	ng/L		04/26/25 12:50	04/27/25 16:17	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		04/26/25 12:50	04/27/25 16:17	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		04/26/25 12:50	04/27/25 16:17	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		04/26/25 12:50	04/27/25 16:17	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		04/26/25 12:50	04/27/25 16:17	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		04/26/25 12:50	04/27/25 16:17	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		04/26/25 12:50	04/27/25 16:17	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		04/26/25 12:50	04/27/25 16:17	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		04/26/25 12:50	04/27/25 16:17	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		04/26/25 12:50	04/27/25 16:17	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		04/26/25 12:50	04/27/25 16:17	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		04/26/25 12:50	04/27/25 16:17	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		04/26/25 12:50	04/27/25 16:17	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		04/26/25 12:50	04/27/25 16:17	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		04/26/25 12:50	04/27/25 16:17	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		04/26/25 12:50	04/27/25 16:17	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		04/26/25 12:50	04/27/25 16:17	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		04/26/25 12:50	04/27/25 16:17	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		04/26/25 12:50	04/27/25 16:17	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		04/26/25 12:50	04/27/25 16:17	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		04/26/25 12:50	04/27/25 16:17	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		04/26/25 12:50	04/27/25 16:17	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		04/26/25 12:50	04/27/25 16:17	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		04/26/25 12:50	04/27/25 16:17	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	72		50 - 200	04/26/25 12:50	04/27/25 16:17	1
13C6 PFDA	101		50 - 200	04/26/25 12:50	04/27/25 16:17	1
13C5 PFHxA	107		50 - 200	04/26/25 12:50	04/27/25 16:17	1
13C4 PFHpA	104		50 - 200	04/26/25 12:50	04/27/25 16:17	1
13C8 PFOA	100		50 - 200	04/26/25 12:50	04/27/25 16:17	1
13C9 PFNA	102		50 - 200	04/26/25 12:50	04/27/25 16:17	1
13C7 PFUnA	94		50 - 200	04/26/25 12:50	04/27/25 16:17	1
13C2 PFDoA	93		50 - 200	04/26/25 12:50	04/27/25 16:17	1
13C4 PFBA	103		50 - 200	04/26/25 12:50	04/27/25 16:17	1
13C5 PFPeA	101		50 - 200	04/26/25 12:50	04/27/25 16:17	1
13C3 PFBS	101		50 - 200	04/26/25 12:50	04/27/25 16:17	1
13C3 PFHxS	104		50 - 200	04/26/25 12:50	04/27/25 16:17	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-149460/22-A

Matrix: Water

Analysis Batch: 149502

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 149460

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	100		50 - 200	04/26/25 12:50	04/27/25 16:17	1
13C2-4:2-FTS	125		50 - 200	04/26/25 12:50	04/27/25 16:17	1
13C2-6:2-FTS	106		50 - 200	04/26/25 12:50	04/27/25 16:17	1
13C2-8:2-FTS	101		50 - 200	04/26/25 12:50	04/27/25 16:17	1

Lab Sample ID: LCS 380-149460/24-A

Matrix: Water

Analysis Batch: 149502

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 149460

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	120	110		ng/L		91	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	120	110		ng/L		91	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	120	101		ng/L		84	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	120	116		ng/L		97	70 - 130
Perfluorobutanesulfonic acid (PFBS)	120	114		ng/L		94	70 - 130
Perfluorodecanoic acid (PFDA)	120	112		ng/L		93	70 - 130
Perfluorododecanoic acid (PFDaA)	120	112		ng/L		93	70 - 130
Perfluoroheptanoic acid (PFHpA)	120	104		ng/L		86	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	120	114		ng/L		95	70 - 130
Perfluorohexanoic acid (PFHxA)	120	118		ng/L		98	70 - 130
Perfluorononanoic acid (PFNA)	120	110		ng/L		92	70 - 130
Perfluorooctanesulfonic acid (PFOS)	120	117		ng/L		97	70 - 130
Perfluorooctanoic acid (PFOA)	120	114		ng/L		95	70 - 130
Perfluoroundecanoic acid (PFUnA)	120	117		ng/L		97	70 - 130
Perfluorobutanoic acid (PFBA)	120	111		ng/L		92	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	120	115		ng/L		95	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	120	113		ng/L		94	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	120	115		ng/L		96	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	120	93.7		ng/L		78	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	120	119		ng/L		99	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	120	110		ng/L		91	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	120	109		ng/L		91	70 - 130
Perfluoropentanoic acid (PFPeA)	120	112		ng/L		93	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	120	118		ng/L		98	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Lab Sample ID: LCS 380-149460/24-A

Matrix: Water

Analysis Batch: 149502

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 149460

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	120	111		ng/L		93	70 - 130
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits				
13C3 HFPO-DA	80		50 - 200				
13C6 PFDA	105		50 - 200				
13C5 PFHxA	103		50 - 200				
13C4 PFHpA	109		50 - 200				
13C8 PFOA	99		50 - 200				
13C9 PFNA	106		50 - 200				
13C7 PFUnA	102		50 - 200				
13C2 PFDoA	97		50 - 200				
13C4 PFBA	102		50 - 200				
13C5 PFPeA	99		50 - 200				
13C3 PFBS	101		50 - 200				
13C3 PFHxS	102		50 - 200				
13C8 PFOS	101		50 - 200				
13C2-4:2-FTS	113		50 - 200				
13C2-6:2-FTS	101		50 - 200				
13C2-8:2-FTS	100		50 - 200				

Lab Sample ID: MRL 380-149460/23-A

Matrix: Water

Analysis Batch: 149502

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 149460

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	2.01	J	ng/L		100	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	2.00	1.93	J	ng/L		97	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	1.87	J	ng/L		93	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	2.06	J	ng/L		103	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.10	J	ng/L		105	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	1.98	J	ng/L		99	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.17	J	ng/L		108	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	1.95	J	ng/L		97	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.10	J	ng/L		105	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	2.23	J	ng/L		111	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.03	J	ng/L		101	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.21	J	ng/L		110	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.15	J	ng/L		107	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.13	J	ng/L		107	50 - 150
Perfluorobutanoic acid (PFBA)	2.00	2.13	J	ng/L		106	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Lab Sample ID: MRL 380-149460/23-A

Matrix: Water

Analysis Batch: 149502

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 149460

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.00	2.21	J	ng/L		110	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.00	2.20	J	ng/L		110	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.00	2.38	J	ng/L		119	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.00	1.92	J	ng/L		96	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	2.00	2.20	J	ng/L		110	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.00	2.02	J	ng/L		101	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.00	1.91	J	ng/L		95	50 - 150
Perfluoropentanoic acid (PFPeA)	2.00	2.14	J	ng/L		107	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.00	1.88	J	ng/L		94	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.00	2.05	J	ng/L		102	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	63		50 - 200
13C6 PFDA	89		50 - 200
13C5 PFHxA	91		50 - 200
13C4 PFHpA	93		50 - 200
13C8 PFOA	87		50 - 200
13C9 PFNA	92		50 - 200
13C7 PFUnA	87		50 - 200
13C2 PFDoA	81		50 - 200
13C4 PFBA	91		50 - 200
13C5 PFPeA	89		50 - 200
13C3 PFBS	97		50 - 200
13C3 PFHxS	101		50 - 200
13C8 PFOS	101		50 - 200
13C2-4:2-FTS	109		50 - 200
13C2-6:2-FTS	98		50 - 200
13C2-8:2-FTS	96		50 - 200

Lab Sample ID: 380-147455-B-9-A MS

Matrix: Water

Analysis Batch: 149502

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 149460

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		121	103		ng/L		85	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		121	107		ng/L		88	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		121	103		ng/L		85	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-147455-B-9-A MS

Matrix: Water

Analysis Batch: 149502

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 149460

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	<2.0		121	110		ng/L		91	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorobutanesulfonic acid (PFBS)	<2.0		121	117		ng/L		96	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		121	109		ng/L		90	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		121	113		ng/L		93	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		121	108		ng/L		89	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		121	109		ng/L		90	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		121	115		ng/L		95	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		121	112		ng/L		92	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		121	114		ng/L		93	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		121	116		ng/L		95	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		121	117		ng/L		97	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		121	117		ng/L		95	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		121	118		ng/L		98	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		121	115		ng/L		95	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		121	115		ng/L		95	70 - 130
Nonafluoro-3,6-dioxahexanoic acid (NFDHA)	<2.0		121	100		ng/L		83	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		121	123		ng/L		102	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		121	127		ng/L		105	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		121	108		ng/L		90	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		121	108		ng/L		89	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		121	112		ng/L		93	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		121	113		ng/L		93	70 - 130

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C3 HFPO-DA	91		50 - 200
13C6 PFDA	87		50 - 200
13C5 PFHxA	97		50 - 200
13C4 PFHpA	96		50 - 200
13C8 PFOA	88		50 - 200
13C9 PFNA	85		50 - 200
13C7 PFUnA	88		50 - 200
13C2 PFDoA	85		50 - 200
13C4 PFBA	99		50 - 200
13C5 PFPeA	121		50 - 200
13C3 PFBS	98		50 - 200
13C3 PFHxS	104		50 - 200
13C8 PFOS	103		50 - 200

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-147455-B-9-A MS

Matrix: Water

Analysis Batch: 149502

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 149460

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C2-4:2-FTS	122		50 - 200
13C2-6:2-FTS	109		50 - 200
13C2-8:2-FTS	105		50 - 200

Lab Sample ID: 380-147455-C-9-A MSD

Matrix: Water

Analysis Batch: 149502

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 149460

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		121	106		ng/L		87	70 - 130	3	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		121	106		ng/L		87	70 - 130	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		121	104		ng/L		86	70 - 130	0	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		121	110		ng/L		91	70 - 130	0	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		121	117		ng/L		96	70 - 130	0	30
Perfluorodecanoic acid (PFDA)	<2.0		121	110		ng/L		91	70 - 130	1	30
Perfluorododecanoic acid (PFDaA)	<2.0		121	116		ng/L		96	70 - 130	3	30
Perfluoroheptanoic acid (PFHpA)	<2.0		121	109		ng/L		90	70 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		121	115		ng/L		94	70 - 130	5	30
Perfluorohexanoic acid (PFHxA)	<2.0		121	116		ng/L		96	70 - 130	1	30
Perfluorononanoic acid (PFNA)	<2.0		121	109		ng/L		90	70 - 130	3	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		121	116		ng/L		95	70 - 130	2	30
Perfluorooctanoic acid (PFOA)	<2.0		121	112		ng/L		92	70 - 130	3	30
Perfluoroundecanoic acid (PFUnA)	<2.0		121	116		ng/L		96	70 - 130	1	30
Perfluorobutanoic acid (PFBA)	<2.0		121	117		ng/L		95	70 - 130	0	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		121	115		ng/L		95	70 - 130	2	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		121	115		ng/L		95	70 - 130	0	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		121	117		ng/L		97	70 - 130	2	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		121	99.3		ng/L		82	70 - 130	1	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<2.0		121	121		ng/L		100	70 - 130	2	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		121	128		ng/L		106	70 - 130	0	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		121	109		ng/L		90	70 - 130	1	30
Perfluoropentanoic acid (PFPeA)	<2.0		121	115		ng/L		94	70 - 130	6	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		121	114		ng/L		95	70 - 130	2	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		121	114		ng/L		94	70 - 130	1	30

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C3 HFPO-DA	92		50 - 200
13C6 PFDA	77		50 - 200
13C5 PFHxA	97		50 - 200
13C4 PFHpA	93		50 - 200
13C8 PFOA	84		50 - 200
13C9 PFNA	82		50 - 200
13C7 PFUnA	78		50 - 200
13C2 PFDoA	74		50 - 200
13C4 PFBA	98		50 - 200
13C5 PFPeA	116		50 - 200
13C3 PFBS	96		50 - 200
13C3 PFHxS	98		50 - 200
13C8 PFOS	100		50 - 200
13C2-4:2-FTS	117		50 - 200
13C2-6:2-FTS	106		50 - 200
13C2-8:2-FTS	102		50 - 200

Lab Sample ID: MBL 380-149756/20-A

Matrix: Water

Analysis Batch: 149969

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 149756

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		04/29/25 07:00	04/30/25 08:45	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		04/29/25 07:00	04/30/25 08:45	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		04/29/25 07:00	04/30/25 08:45	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		04/29/25 07:00	04/30/25 08:45	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		04/29/25 07:00	04/30/25 08:45	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		04/29/25 07:00	04/30/25 08:45	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		04/29/25 07:00	04/30/25 08:45	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		04/29/25 07:00	04/30/25 08:45	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		04/29/25 07:00	04/30/25 08:45	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		04/29/25 07:00	04/30/25 08:45	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		04/29/25 07:00	04/30/25 08:45	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		04/29/25 07:00	04/30/25 08:45	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		04/29/25 07:00	04/30/25 08:45	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		04/29/25 07:00	04/30/25 08:45	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		04/29/25 07:00	04/30/25 08:45	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		04/29/25 07:00	04/30/25 08:45	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		04/29/25 07:00	04/30/25 08:45	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		04/29/25 07:00	04/30/25 08:45	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		04/29/25 07:00	04/30/25 08:45	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		04/29/25 07:00	04/30/25 08:45	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		04/29/25 07:00	04/30/25 08:45	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		04/29/25 07:00	04/30/25 08:45	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-149756/20-A

Matrix: Water

Analysis Batch: 149969

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 149756

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		04/29/25 07:00	04/30/25 08:45	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		04/29/25 07:00	04/30/25 08:45	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		04/29/25 07:00	04/30/25 08:45	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	89		50 - 200	04/29/25 07:00	04/30/25 08:45	1
13C6 PFDA	101		50 - 200	04/29/25 07:00	04/30/25 08:45	1
13C5 PFHxA	110		50 - 200	04/29/25 07:00	04/30/25 08:45	1
13C4 PFHpA	104		50 - 200	04/29/25 07:00	04/30/25 08:45	1
13C8 PFOA	107		50 - 200	04/29/25 07:00	04/30/25 08:45	1
13C9 PFNA	105		50 - 200	04/29/25 07:00	04/30/25 08:45	1
13C7 PFUnA	100		50 - 200	04/29/25 07:00	04/30/25 08:45	1
13C2 PFDoA	94		50 - 200	04/29/25 07:00	04/30/25 08:45	1
13C4 PFBA	105		50 - 200	04/29/25 07:00	04/30/25 08:45	1
13C5 PFPeA	103		50 - 200	04/29/25 07:00	04/30/25 08:45	1
13C3 PFBS	112		50 - 200	04/29/25 07:00	04/30/25 08:45	1
13C3 PFHxS	110		50 - 200	04/29/25 07:00	04/30/25 08:45	1
13C8 PFOS	110		50 - 200	04/29/25 07:00	04/30/25 08:45	1
13C2-4:2-FTS	120		50 - 200	04/29/25 07:00	04/30/25 08:45	1
13C2-6:2-FTS	115		50 - 200	04/29/25 07:00	04/30/25 08:45	1
13C2-8:2-FTS	103		50 - 200	04/29/25 07:00	04/30/25 08:45	1

Lab Sample ID: LCS 380-149756/22-A

Matrix: Water

Analysis Batch: 149969

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 149756

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	60.1	54.9		ng/L		91	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	60.1	56.4		ng/L		94	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.1	59.8		ng/L		100	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.1	56.6		ng/L		94	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.1	52.8		ng/L		88	70 - 130
Perfluorodecanoic acid (PFDA)	60.1	58.5		ng/L		97	70 - 130
Perfluorododecanoic acid (PFDoA)	60.1	58.1		ng/L		97	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.1	57.4		ng/L		95	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.1	60.8		ng/L		101	70 - 130
Perfluorohexanoic acid (PFHxA)	60.1	57.2		ng/L		95	70 - 130
Perfluorononanoic acid (PFNA)	60.1	57.4		ng/L		96	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.1	54.9		ng/L		91	70 - 130
Perfluorooctanoic acid (PFOA)	60.1	56.7		ng/L		94	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Lab Sample ID: LCS 380-149756/22-A

Matrix: Water

Analysis Batch: 149969

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 149756

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	60.1	59.4		ng/L		99	70 - 130
Perfluorobutanoic acid (PFBA)	60.1	59.3		ng/L		99	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.1	58.5		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.1	59.8		ng/L		99	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.1	59.9		ng/L		100	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	60.1	50.4		ng/L		84	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	60.1	51.9		ng/L		86	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.1	58.4		ng/L		97	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.1	55.7		ng/L		93	70 - 130
Perfluoropentanoic acid (PFPeA)	60.1	57.1		ng/L		95	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	60.1	59.5		ng/L		99	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	60.1	59.9		ng/L		100	70 - 130

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	91		50 - 200
13C6 PFDA	93		50 - 200
13C5 PFHxA	102		50 - 200
13C4 PFHpA	101		50 - 200
13C8 PFOA	101		50 - 200
13C9 PFNA	98		50 - 200
13C7 PFUnA	93		50 - 200
13C2 PFDoA	91		50 - 200
13C4 PFBA	101		50 - 200
13C5 PFPeA	102		50 - 200
13C3 PFBS	111		50 - 200
13C3 PFHxS	104		50 - 200
13C8 PFOS	107		50 - 200
13C2-4:2-FTS	115		50 - 200
13C2-6:2-FTS	111		50 - 200
13C2-8:2-FTS	106		50 - 200

Lab Sample ID: MRL 380-149756/21-A

Matrix: Water

Analysis Batch: 149969

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 149756

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	1.84	J	ng/L		92	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	2.00	1.97	J	ng/L		99	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Lab Sample ID: MRL 380-149756/21-A

Matrix: Water

Analysis Batch: 149969

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 149756

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	1.97	J	ng/L		99	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	2.01	J	ng/L		101	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	1.98	J	ng/L		99	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.09	J	ng/L		105	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.10	J	ng/L		105	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.11	J	ng/L		106	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	1.92	J	ng/L		96	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	2.20	J	ng/L		110	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.00	J	ng/L		100	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.07	J	ng/L		103	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.04	J	ng/L		102	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.13	J	ng/L		107	50 - 150
Perfluorobutanoic acid (PFBA)	2.00	2.20	J	ng/L		110	50 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.00	2.16	J	ng/L		108	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.00	2.05	J	ng/L		102	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.00	2.17	J	ng/L		108	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.00	1.92	J	ng/L		96	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.00	1.66	J	ng/L		83	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.00	1.98	J	ng/L		99	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.00	1.91	J	ng/L		95	50 - 150
Perfluoropentanoic acid (PFPeA)	2.00	1.99	J	ng/L		100	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.00	1.87	J	ng/L		93	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.00	1.93	J	ng/L		97	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	Limits
13C3 HFPO-DA	86		50 - 200
13C6 PFDA	100		50 - 200
13C5 PFHxA	103		50 - 200
13C4 PFHpA	103		50 - 200
13C8 PFOA	104		50 - 200
13C9 PFNA	102		50 - 200
13C7 PFUnA	94		50 - 200
13C2 PFDoA	89		50 - 200
13C4 PFBA	105		50 - 200
13C5 PFPeA	105		50 - 200
13C3 PFBS	110		50 - 200
13C3 PFHxS	111		50 - 200

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Lab Sample ID: MRL 380-149756/21-A

Matrix: Water

Analysis Batch: 149969

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 149756

Isotope Dilution	MRL %Recovery	MRL Qualifier	Limits
13C8 PFOS	104		50 - 200
13C2-4:2-FTS	118		50 - 200
13C2-6:2-FTS	110		50 - 200
13C2-8:2-FTS	100		50 - 200

Lab Sample ID: 380-147587-B-4-A MS

Matrix: Water

Analysis Batch: 149969

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 149756

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		60.2	56.7		ng/L		94	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		60.2	57.4		ng/L		95	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.2	60.1		ng/L		100	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.2	59.5		ng/L		99	70 - 130
Perfluorobutanesulfonic acid (PFBS)	3.8		60.2	61.7		ng/L		96	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.2	62.2		ng/L		103	70 - 130
Perfluorododecanoic acid (PFDaA)	<2.0		60.2	60.8		ng/L		101	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.2	58.1		ng/L		96	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	5.4		60.2	63.3		ng/L		96	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		60.2	62.1		ng/L		103	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.2	58.7		ng/L		97	70 - 130
Perfluorooctanesulfonic acid (PFOS)	13		60.2	71.0		ng/L		97	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.2	60.5		ng/L		98	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.2	64.3		ng/L		107	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.2	62.0		ng/L		100	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.2	63.6		ng/L		106	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.2	58.8		ng/L		98	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.2	61.1		ng/L		101	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.2	49.4		ng/L		82	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<2.0		60.2	57.3		ng/L		95	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.2	59.3		ng/L		98	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.2	57.6		ng/L		96	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		60.2	59.7		ng/L		99	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.2	61.3		ng/L		102	70 - 130

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QC Sample Results

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-147587-B-4-A MS

Matrix: Water

Analysis Batch: 149969

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 149756

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.2	58.8		ng/L		96	70 - 130
Isotope Dilution									
	MS %Recovery	MS Qualifier	Limits						
13C3 HFPO-DA	91		50 - 200						
13C6 PFDA	95		50 - 200						
13C5 PFHxA	101		50 - 200						
13C4 PFHpA	102		50 - 200						
13C8 PFOA	101		50 - 200						
13C9 PFNA	98		50 - 200						
13C7 PFUnA	88		50 - 200						
13C2 PFDoA	90		50 - 200						
13C4 PFBA	104		50 - 200						
13C5 PFPeA	105		50 - 200						
13C3 PFBS	108		50 - 200						
13C3 PFHxS	112		50 - 200						
13C8 PFOS	107		50 - 200						
13C2-4:2-FTS	127		50 - 200						
13C2-6:2-FTS	120		50 - 200						
13C2-8:2-FTS	102		50 - 200						

Lab Sample ID: 380-147587-C-4-A MSD

Matrix: Water

Analysis Batch: 149969

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 149756

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		60.2	55.8		ng/L		93	70 - 130	2	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		60.2	56.1		ng/L		93	70 - 130	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.2	55.1		ng/L		92	70 - 130	9	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.2	60.6		ng/L		101	70 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)	3.8		60.2	62.8		ng/L		98	70 - 130	2	30
Perfluorodecanoic acid (PFDA)	<2.0		60.2	57.6		ng/L		96	70 - 130	8	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.2	59.7		ng/L		99	70 - 130	2	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.2	57.4		ng/L		95	70 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	5.4		60.2	62.6		ng/L		95	70 - 130	1	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.2	61.3		ng/L		102	70 - 130	1	30
Perfluorononanoic acid (PFNA)	<2.0		60.2	58.5		ng/L		97	70 - 130	0	30
Perfluorooctanesulfonic acid (PFOS)	13		60.2	69.4		ng/L		94	70 - 130	2	30
Perfluorooctanoic acid (PFOA)	<2.0		60.2	57.9		ng/L		94	70 - 130	4	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.2	60.8		ng/L		101	70 - 130	6	30
Perfluorobutanoic acid (PFBA)	<2.0		60.2	60.6		ng/L		97	70 - 130	2	30

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-147587-C-4-A MSD

Matrix: Water

Analysis Batch: 149969

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 149756

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.2	61.0		ng/L		101	70 - 130	4	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.2	61.8		ng/L		103	70 - 130	5	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.2	60.7		ng/L		101	70 - 130	1	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.2	47.5		ng/L		79	70 - 130	4	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<2.0		60.2	53.8		ng/L		89	70 - 130	6	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.2	60.6		ng/L		101	70 - 130	2	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.2	58.6		ng/L		97	70 - 130	2	30
Perfluoropentanoic acid (PFPeA)	<2.0		60.2	58.6		ng/L		97	70 - 130	2	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.2	60.6		ng/L		101	70 - 130	1	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.2	59.7		ng/L		98	70 - 130	2	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	MSD Limits
13C3 HFPO-DA	78		50 - 200
13C6 PFDA	88		50 - 200
13C5 PFHxA	91		50 - 200
13C4 PFHpA	89		50 - 200
13C8 PFOA	88		50 - 200
13C9 PFNA	87		50 - 200
13C7 PFUnA	86		50 - 200
13C2 PFDoA	88		50 - 200
13C4 PFBA	95		50 - 200
13C5 PFPeA	94		50 - 200
13C3 PFBS	108		50 - 200
13C3 PFHxS	113		50 - 200
13C8 PFOS	108		50 - 200
13C2-4:2-FTS	120		50 - 200
13C2-6:2-FTS	113		50 - 200
13C2-8:2-FTS	103		50 - 200

Lab Sample ID: MBL 380-150550/20-A

Matrix: Water

Analysis Batch: 150566

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 150550

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		05/03/25 14:56	05/05/25 03:12	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		05/03/25 14:56	05/05/25 03:12	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		05/03/25 14:56	05/05/25 03:12	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		05/03/25 14:56	05/05/25 03:12	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		05/03/25 14:56	05/05/25 03:12	1

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QC Sample Results

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Lab Sample ID: MBL 380-150550/20-A

Matrix: Water

Analysis Batch: 150566

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 150550

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		05/03/25 14:56	05/05/25 03:12	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		05/03/25 14:56	05/05/25 03:12	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		05/03/25 14:56	05/05/25 03:12	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		05/03/25 14:56	05/05/25 03:12	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		05/03/25 14:56	05/05/25 03:12	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		05/03/25 14:56	05/05/25 03:12	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		05/03/25 14:56	05/05/25 03:12	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		05/03/25 14:56	05/05/25 03:12	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		05/03/25 14:56	05/05/25 03:12	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		05/03/25 14:56	05/05/25 03:12	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		05/03/25 14:56	05/05/25 03:12	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		05/03/25 14:56	05/05/25 03:12	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		05/03/25 14:56	05/05/25 03:12	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		05/03/25 14:56	05/05/25 03:12	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		05/03/25 14:56	05/05/25 03:12	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		05/03/25 14:56	05/05/25 03:12	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		05/03/25 14:56	05/05/25 03:12	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		05/03/25 14:56	05/05/25 03:12	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		05/03/25 14:56	05/05/25 03:12	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		05/03/25 14:56	05/05/25 03:12	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	74		50 - 200	05/03/25 14:56	05/05/25 03:12	1
13C6 PFDA	109		50 - 200	05/03/25 14:56	05/05/25 03:12	1
13C5 PFHxA	112		50 - 200	05/03/25 14:56	05/05/25 03:12	1
13C4 PFHpA	110		50 - 200	05/03/25 14:56	05/05/25 03:12	1
13C8 PFOA	110		50 - 200	05/03/25 14:56	05/05/25 03:12	1
13C9 PFNA	109		50 - 200	05/03/25 14:56	05/05/25 03:12	1
13C7 PFUnA	108		50 - 200	05/03/25 14:56	05/05/25 03:12	1
13C2 PFDoA	108		50 - 200	05/03/25 14:56	05/05/25 03:12	1
13C4 PFBA	110		50 - 200	05/03/25 14:56	05/05/25 03:12	1
13C5 PFPeA	112		50 - 200	05/03/25 14:56	05/05/25 03:12	1
13C3 PFBS	120		50 - 200	05/03/25 14:56	05/05/25 03:12	1
13C3 PFHxS	121		50 - 200	05/03/25 14:56	05/05/25 03:12	1
13C8 PFOS	116		50 - 200	05/03/25 14:56	05/05/25 03:12	1
13C2-4:2-FTS	128		50 - 200	05/03/25 14:56	05/05/25 03:12	1
13C2-6:2-FTS	133		50 - 200	05/03/25 14:56	05/05/25 03:12	1
13C2-8:2-FTS	124		50 - 200	05/03/25 14:56	05/05/25 03:12	1

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QC Sample Results

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Lab Sample ID: LCS 380-150550/22-A

Matrix: Water

Analysis Batch: 150566

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 150550

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	120	112		ng/L		93	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	120	112		ng/L		93	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	120	114		ng/L		95	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	120	112		ng/L		93	70 - 130
Perfluorobutanesulfonic acid (PFBS)	120	110		ng/L		92	70 - 130
Perfluorodecanoic acid (PFDA)	120	118		ng/L		98	70 - 130
Perfluorododecanoic acid (PFDoA)	120	116		ng/L		97	70 - 130
Perfluoroheptanoic acid (PFHpA)	120	117		ng/L		98	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	120	114		ng/L		95	70 - 130
Perfluorohexanoic acid (PFHxA)	120	123		ng/L		102	70 - 130
Perfluorononanoic acid (PFNA)	120	115		ng/L		96	70 - 130
Perfluorooctanesulfonic acid (PFOS)	120	112		ng/L		93	70 - 130
Perfluorooctanoic acid (PFOA)	120	119		ng/L		99	70 - 130
Perfluoroundecanoic acid (PFUnA)	120	115		ng/L		96	70 - 130
Perfluorobutanoic acid (PFBA)	120	117		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	120	117		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	120	118		ng/L		98	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	120	117		ng/L		98	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	120	114		ng/L		95	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	120	105		ng/L		88	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	120	118		ng/L		99	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	120	119		ng/L		99	70 - 130
Perfluoropentanoic acid (PFPeA)	120	118		ng/L		98	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	120	116		ng/L		97	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	120	115		ng/L		96	70 - 130

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C3 HFPO-DA	69		50 - 200
13C6 PFDA	106		50 - 200
13C5 PFHxA	106		50 - 200
13C4 PFHpA	108		50 - 200
13C8 PFOA	103		50 - 200
13C9 PFNA	106		50 - 200

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QC Sample Results

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Lab Sample ID: LCS 380-150550/22-A

Matrix: Water

Analysis Batch: 150566

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 150550

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C7 PFUnA	104		50 - 200
13C2 PFDoA	105		50 - 200
13C4 PFBA	105		50 - 200
13C5 PFPeA	103		50 - 200
13C3 PFBS	112		50 - 200
13C3 PFHxS	113		50 - 200
13C8 PFOS	113		50 - 200
13C2-4:2-FTS	125		50 - 200
13C2-6:2-FTS	124		50 - 200
13C2-8:2-FTS	119		50 - 200

Lab Sample ID: MRL 380-150550/21-A

Matrix: Water

Analysis Batch: 150566

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 150550

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	2.13	J	ng/L		106	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	2.00	1.98	J	ng/L		99	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	2.12	J	ng/L		106	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	2.24	J	ng/L		112	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.07	J	ng/L		103	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.28	J	ng/L		114	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.20	J	ng/L		110	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.18	J	ng/L		109	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.08	J	ng/L		104	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	2.17	J	ng/L		108	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.18	J	ng/L		109	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.20	J	ng/L		110	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.14	J	ng/L		107	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.18	J	ng/L		109	50 - 150
Perfluorobutanoic acid (PFBA)	2.00	2.25	J	ng/L		112	50 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.00	2.28	J	ng/L		114	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.00	2.26	J	ng/L		113	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.00	2.33	J	ng/L		116	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.00	2.03	J	ng/L		101	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.00	1.84	J	ng/L		92	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Lab Sample ID: MRL 380-150550/21-A

Matrix: Water

Analysis Batch: 150566

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 150550

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.00	2.10	J	ng/L		105	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.00	2.16	J	ng/L		108	50 - 150
Perfluoropentanoic acid (PFPeA)	2.00	2.18	J	ng/L		109	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.00	1.89	J	ng/L		94	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.00	2.03	J	ng/L		101	50 - 150
Isotope Dilution	MRL %Recovery	MRL Qualifier	Limits				
13C3 HFPO-DA	57		50 - 200				
13C6 PFDA	106		50 - 200				
13C5 PFHxA	111		50 - 200				
13C4 PFHpA	110		50 - 200				
13C8 PFOA	109		50 - 200				
13C9 PFNA	107		50 - 200				
13C7 PFUnA	104		50 - 200				
13C2 PFDoA	105		50 - 200				
13C4 PFBA	108		50 - 200				
13C5 PFPeA	105		50 - 200				
13C3 PFBS	116		50 - 200				
13C3 PFHxS	117		50 - 200				
13C8 PFOS	118		50 - 200				
13C2-4:2-FTS	134		50 - 200				
13C2-6:2-FTS	130		50 - 200				
13C2-8:2-FTS	120		50 - 200				

Lab Sample ID: 380-148596-B-1-A MS

Matrix: Water

Analysis Batch: 150566

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 150550

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS)	<2.0		60.2	59.1		ng/L		98	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9CI-PF3ONS)	<2.0		60.2	57.2		ng/L		95	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.2	59.2		ng/L		98	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0	*5-	60.2	63.5		ng/L		105	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.2	56.8		ng/L		94	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.2	59.9		ng/L		99	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.2	60.7		ng/L		101	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.2	59.9		ng/L		99	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.2	57.9		ng/L		96	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		60.2	63.7		ng/L		106	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-148596-B-1-A MS

Matrix: Water

Analysis Batch: 150566

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 150550

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorononanoic acid (PFNA)	<2.0		60.2	59.6		ng/L		99	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.2	57.1		ng/L		95	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.2	61.2		ng/L		102	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.2	61.6		ng/L		102	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.2	59.6		ng/L		99	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.2	63.9		ng/L		106	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.2	61.2		ng/L		102	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.2	59.7		ng/L		99	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.2	55.0		ng/L		91	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		60.2	49.9		ng/L		83	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.2	57.1		ng/L		95	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.2	56.7		ng/L		94	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		60.2	55.9		ng/L		93	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.2	60.6		ng/L		101	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.2	59.1		ng/L		98	70 - 130

Isotope Dilution	MS MS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	78		50 - 200
13C6 PFDA	85		50 - 200
13C5 PFHxA	92		50 - 200
13C4 PFHpA	91		50 - 200
13C8 PFOA	87		50 - 200
13C9 PFNA	85		50 - 200
13C7 PFUnA	86		50 - 200
13C2 PFDoA	91		50 - 200
13C4 PFBA	95		50 - 200
13C5 PFPeA	95		50 - 200
13C3 PFBS	122		50 - 200
13C3 PFHxS	116		50 - 200
13C8 PFOS	114		50 - 200
13C2-4:2-FTS	130		50 - 200
13C2-6:2-FTS	125		50 - 200
13C2-8:2-FTS	118		50 - 200

QC Sample Results

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-148596-B-1-B MSD

Matrix: Water

Analysis Batch: 150566

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 150550

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.1	58.2		ng/L		97	70 - 130	2	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.1	55.8		ng/L		93	70 - 130	3	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.1	57.5		ng/L		96	70 - 130	3	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0	*5-	60.1	60.2		ng/L		100	70 - 130	5	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.1	55.2		ng/L		92	70 - 130	3	30
Perfluorodecanoic acid (PFDA)	<2.0		60.1	59.5		ng/L		99	70 - 130	1	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.1	59.5		ng/L		99	70 - 130	2	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.1	59.8		ng/L		99	70 - 130	0	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.1	55.2		ng/L		92	70 - 130	5	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.1	62.2		ng/L		103	70 - 130	2	30
Perfluorononanoic acid (PFNA)	<2.0		60.1	60.6		ng/L		101	70 - 130	2	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.1	57.4		ng/L		95	70 - 130	0	30
Perfluorooctanoic acid (PFOA)	<2.0		60.1	60.5		ng/L		101	70 - 130	1	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.1	60.7		ng/L		101	70 - 130	2	30
Perfluorobutanoic acid (PFBA)	<2.0		60.1	60.0		ng/L		100	70 - 130	1	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.1	65.5		ng/L		109	70 - 130	2	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.1	62.3		ng/L		104	70 - 130	2	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.1	61.1		ng/L		102	70 - 130	2	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.1	54.0		ng/L		90	70 - 130	2	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.1	54.2		ng/L		90	70 - 130	8	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.1	58.2		ng/L		97	70 - 130	2	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.1	56.3		ng/L		94	70 - 130	1	30
Perfluoropentanoic acid (PFPeA)	<2.0		60.1	59.8		ng/L		100	70 - 130	7	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.1	57.3		ng/L		95	70 - 130	5	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.1	58.3		ng/L		97	70 - 130	1	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C3 HFPO-DA	74		50 - 200
13C6 PFDA	84		50 - 200
13C5 PFHxA	87		50 - 200
13C4 PFHpA	88		50 - 200
13C8 PFOA	83		50 - 200
13C9 PFNA	83		50 - 200

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-148596-B-1-B MSD

Matrix: Water

Analysis Batch: 150566

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 150550

Isotope Dilution	MSD		Limits
	%Recovery	Qualifier	
13C7 PFUnA	86		50 - 200
13C2 PFDoA	94		50 - 200
13C4 PFBA	91		50 - 200
13C5 PFPeA	83		50 - 200
13C3 PFBS	107		50 - 200
13C3 PFHxS	110		50 - 200
13C8 PFOS	112		50 - 200
13C2-4:2-FTS	119		50 - 200
13C2-6:2-FTS	117		50 - 200
13C2-8:2-FTS	113		50 - 200

QC Association Summary

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

Job ID: 380-147449-1
SDG: Weekly PFAS

LCMS

Prep Batch: 149460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-147449-2	Ka'amilo Wells	Total/NA	Water	533	
380-147449-3	FB Aiea Wells Pumps 1&2 (260)	Total/NA	Water	533	
380-147449-4	FB Ka'amilo Wells	Total/NA	Water	533	
MBL 380-149460/22-A	Method Blank	Total/NA	Water	533	
LCS 380-149460/24-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-149460/23-A	Lab Control Sample	Total/NA	Water	533	
380-147455-B-9-A MS	Matrix Spike	Total/NA	Water	533	
380-147455-C-9-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 149502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-147449-2	Ka'amilo Wells	Total/NA	Water	533	149460
380-147449-3	FB Aiea Wells Pumps 1&2 (260)	Total/NA	Water	533	149460
380-147449-4	FB Ka'amilo Wells	Total/NA	Water	533	149460
MBL 380-149460/22-A	Method Blank	Total/NA	Water	533	149460
LCS 380-149460/24-A	Lab Control Sample	Total/NA	Water	533	149460
MRL 380-149460/23-A	Lab Control Sample	Total/NA	Water	533	149460
380-147455-B-9-A MS	Matrix Spike	Total/NA	Water	533	149460
380-147455-C-9-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	149460

Prep Batch: 149756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-147449-1	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Water	533	
MBL 380-149756/20-A	Method Blank	Total/NA	Water	533	
LCS 380-149756/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-149756/21-A	Lab Control Sample	Total/NA	Water	533	
380-147587-B-4-A MS	Matrix Spike	Total/NA	Water	533	
380-147587-C-4-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 149969

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-147449-1	AIEA WELLS PUMPS 1&2 (260) P2	Total/NA	Water	533	149756
MBL 380-149756/20-A	Method Blank	Total/NA	Water	533	149756
LCS 380-149756/22-A	Lab Control Sample	Total/NA	Water	533	149756
MRL 380-149756/21-A	Lab Control Sample	Total/NA	Water	533	149756
380-147587-B-4-A MS	Matrix Spike	Total/NA	Water	533	149756
380-147587-C-4-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	149756

Prep Batch: 150550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-147449-2	Ka'amilo Wells	Total/NA	Water	533	
MBL 380-150550/20-A	Method Blank	Total/NA	Water	533	
LCS 380-150550/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-150550/21-A	Lab Control Sample	Total/NA	Water	533	
380-148596-B-1-A MS	Matrix Spike	Total/NA	Water	533	
380-148596-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 150566

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-147449-2	Ka'amilo Wells	Total/NA	Water	533	150550
MBL 380-150550/20-A	Method Blank	Total/NA	Water	533	150550

Eurofins Eaton Analytical Pomona

QC Association Summary

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

Job ID: 380-147449-1
SDG: Weekly PFAS

LCMS (Continued)

Analysis Batch: 150566 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 380-150550/22-A	Lab Control Sample	Total/NA	Water	533	150550
MRL 380-150550/21-A	Lab Control Sample	Total/NA	Water	533	150550
380-148596-B-1-A MS	Matrix Spike	Total/NA	Water	533	150550
380-148596-B-1-B MSD	Matrix Spike Duplicate	Total/NA	Water	533	150550

Lab Chronicle

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

Job ID: 380-147449-1
SDG: Weekly PFAS

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

Lab Sample ID: 380-147449-1

Date Collected: 04/21/25 11:13

Matrix: Water

Date Received: 04/24/25 09:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			149756	XTD8	EA POM	04/29/25 07:00
Total/NA	Analysis	533		1	149969	Y5FM	EA POM	04/30/25 10:33

Client Sample ID: Ka'amilo Wells

Lab Sample ID: 380-147449-2

Date Collected: 04/21/25 11:42

Matrix: Water

Date Received: 04/24/25 09:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			149460	E9PK	EA POM	04/26/25 12:50
Total/NA	Analysis	533		1	149502	SZ9R	EA POM	04/27/25 18:04
Total/NA	Prep	533			150550	N8NE	EA POM	05/03/25 14:56
Total/NA	Analysis	533		1	150566	SZ9R	EA POM	05/05/25 07:31

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

Lab Sample ID: 380-147449-3

Date Collected: 04/21/25 11:13

Matrix: Water

Date Received: 04/24/25 09:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			149460	E9PK	EA POM	04/26/25 12:50
Total/NA	Analysis	533		1	149502	SZ9R	EA POM	04/27/25 18:14

Client Sample ID: FB Ka'amilo Wells

Lab Sample ID: 380-147449-4

Date Collected: 04/21/25 11:42

Matrix: Water

Date Received: 04/24/25 09:34

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			149460	E9PK	EA POM	04/26/25 12:50
Total/NA	Analysis	533		1	149502	SZ9R	EA POM	04/27/25 18:24

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: 380-147449-1
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	01-31-26

- 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: 380-147449-1
SDG: Weekly PFAS

Method	Method Description	Protocol	Laboratory
533	Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water	EPA	EA POM
533	Extraction of Perfluorinated and Polyfluorinated 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: 380-147449-1
SDG: Weekly PFAS

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-147449-1	AIEA WELLS PUMPS 1&2 (260) P2	Water	04/21/25 11:13	04/24/25 09:34
380-147449-2	Ka'amilo Wells	Water	04/21/25 11:42	04/24/25 09:34
380-147449-3	FB Aiea Wells Pumps 1&2 (260)	Water	04/21/25 11:13	04/24/25 09:34
380-147449-4	FB Ka'amilo Wells	Water	04/21/25 11:42	04/24/25 09:34

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

Chain of Custody Record



380-147449 COC

Client Information		Sampler bailey	Lab PM. Arada, Rachelle	Carrier Tracking No(s). 380-27941-2757.2	COC No. 380-147449 COC
Client Contact: Kirk Iwamoto		Phone: +1 808 748 5840	E-Mail: Rachelle.Arada@eurofins.com	State of Origin.	Page: Page 2 of 2
Company: City & County of Honolulu		PWSID:			
Address: 630 South Beretania Street; Chemistry Lab Honolulu State Zip: HI 96843 Phone: 808-748-5840 (tel) Email: kiwamoto@hbws.org		Due Date Requested. TAT Requested (days): Compliance Project: Δ No PO #: C20525101 exp 05312023 WO #: Project #: 38001111 Project Name: RED-HILL/HBWS sites Event Desc: RUSH Weekly Red Hill Site:			
Sample Identification		Sample Date	Sample Time	Sample Type (G=grab) Preservation Code	Matrix (W=water, S=solid, O=other) BT-TS=, A=Air
Aiea Wells Pumps 1&2 (260) P2		21-Apr-2025	1113	G	Water
Ka'amilo Wells		21-Apr-2025	1142	G	Water
FB Aiea Wells Pumps 1&2 (260)		21-Apr-2025	1113		Water
FB Ka'amilo Wells		21-Apr-2025	1142		Water
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For Months			
Deliverable Requested I II III IV Other (specify)		Special Instructions/QC Requirements.			
Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:	
[Redacted]		22Apr2025	1400	FED EX 8807 3047 5034	
Relinquished by:		Date/Time:	Company:	Date/Time: 04/24/25 09:34 Company: E&AP	
Custody Seals Intact: Δ Yes Δ No		Date/Time:	Company:	Date/Time: 04/24/25 09:34 Company: E&AP	
Custody Seal No		Cooler Temperature(s) °C and Other Remarks: 151A 1.7°-0.0°-1.7° GEL FROZEN			



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-147449-1

SDG Number: Weekly PFAS

Login Number: 147449

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	