

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
PFAS Moanalua Wells, Halawa Wells, Aiea Gulch Wells P1/P2, Aiea Wells Pump 1&2
RUSH Weekly Red Hill

JOB NUMBER

380-165919-1

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: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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: 380-165919-1

Job ID: 380-165919-1

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Job Narrative 380-165919-1

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 8/13/2025 10:20 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 2.6°C.

PFAS

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: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-165919-1

PWSID Number: HI0000331

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	2.0		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.0		2.0	ng/L	1		537.1	Total/NA

Client Sample ID: HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-165919-2

(331-206-TP065)

PWSID Number: HI0000331

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	2.6		2.0	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	2.0		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.3		2.0	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	2.2		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.3		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanoic acid (PFHxA)	2.0		2.0	ng/L	1		537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.5		2.0	ng/L	1		537.1	Total/NA

Client Sample ID: AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-165919-3

(331-201-TP071)

PWSID Number: HI0000331

No Detections.

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-165919-4

(331-202-TP072)

PWSID Number: HI0000331

No Detections.

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

Lab Sample ID: 380-165919-5

(331-203-TP400)

PWSID Number: HI0000331

No Detections.

Client Sample ID: FB: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-165919-6

PWSID Number: HI0000331

No Detections.

Client Sample ID: FB: HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-165919-7

(331-206-TP065)

PWSID Number: HI0000331

No Detections.

Client Sample ID: FB: AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-165919-8

(331-201-TP071)

PWSID Number: HI0000331

No Detections.

This Detection Summary does not include radiochemical test results.

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Detection Summary

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-165919-9

PWSID Number: HI0000331

☐ No Detections

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

Lab Sample ID: 380-165919-10

PWSID Number: HI0000331

☐ No Detections.

Client Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-165919-1

Date Collected: 08/11/25 09:56

Matrix: Drinking Water

Date Received: 08/13/25 10:20

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		08/14/25 20:25	08/15/25 14:18	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		08/14/25 20:25	08/15/25 14:18	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		08/14/25 20:25	08/15/25 14:18	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		08/14/25 20:25	08/15/25 14:18	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		08/14/25 20:25	08/15/25 14:18	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		08/14/25 20:25	08/15/25 14:18	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		08/14/25 20:25	08/15/25 14:18	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		08/14/25 20:25	08/15/25 14:18	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		08/14/25 20:25	08/15/25 14:18	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		08/14/25 20:25	08/15/25 14:18	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		08/14/25 20:25	08/15/25 14:18	1
Perfluorooctanesulfonic acid (PFOS)	2.0		2.0	ng/L		08/14/25 20:25	08/15/25 14:18	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		08/14/25 20:25	08/15/25 14:18	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		08/14/25 20:25	08/15/25 14:18	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		08/14/25 20:25	08/15/25 14:18	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		08/14/25 20:25	08/15/25 14:18	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		08/14/25 20:25	08/15/25 14:18	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		08/14/25 20:25	08/15/25 14:18	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		08/14/25 20:25	08/15/25 14:18	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		08/14/25 20:25	08/15/25 14:18	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		08/14/25 20:25	08/15/25 14:18	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		08/14/25 20:25	08/15/25 14:18	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		08/14/25 20:25	08/15/25 14:18	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		08/14/25 20:25	08/15/25 14:18	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		08/14/25 20:25	08/15/25 14:18	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	101		50 - 200	08/14/25 20:25	08/15/25 14:18	1
13C6 PFDA	103		50 - 200	08/14/25 20:25	08/15/25 14:18	1
13C5 PFHxA	107		50 - 200	08/14/25 20:25	08/15/25 14:18	1
13C4 PFHpA	108		50 - 200	08/14/25 20:25	08/15/25 14:18	1
13C8 PFOA	109		50 - 200	08/14/25 20:25	08/15/25 14:18	1
13C9 PFNA	105		50 - 200	08/14/25 20:25	08/15/25 14:18	1
13C7 PFUnA	104		50 - 200	08/14/25 20:25	08/15/25 14:18	1
13C2 PFDoA	106		50 - 200	08/14/25 20:25	08/15/25 14:18	1
13C4 PFBA	106		50 - 200	08/14/25 20:25	08/15/25 14:18	1
13C5 PFPeA	105		50 - 200	08/14/25 20:25	08/15/25 14:18	1
13C3 PFBS	105		50 - 200	08/14/25 20:25	08/15/25 14:18	1
13C3 PFHxS	106		50 - 200	08/14/25 20:25	08/15/25 14:18	1

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Client Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-165919-1

Date Collected: 08/11/25 09:56

Matrix: Drinking Water

Date Received: 08/13/25 10:20

PWSID Number: HI0000331

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	105		50 - 200	08/14/25 20:25	08/15/25 14:18	1
13C2-4:2-FTS	112		50 - 200	08/14/25 20:25	08/15/25 14:18	1
13C2-6:2-FTS	105		50 - 200	08/14/25 20:25	08/15/25 14:18	1
13C2-8:2-FTS	99		50 - 200	08/14/25 20:25	08/15/25 14:18	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		08/14/25 03:35	08/15/25 00:16	1
Perfluorooctanesulfonic acid (PFOS)	2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:16	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:16	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:16	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:16	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:16	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:16	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:16	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:16	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:16	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:16	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:16	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:16	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:16	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:16	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:16	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:16	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	104		70 - 130			08/14/25 03:35	08/15/25 00:16	1
13C2 PFHxA	103		70 - 130			08/14/25 03:35	08/15/25 00:16	1
13C2 PFDA	110		70 - 130			08/14/25 03:35	08/15/25 00:16	1
13C3-GenX	103		70 - 130			08/14/25 03:35	08/15/25 00:16	1

Client Sample ID: HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-165919-2

(331-206-TP065)

Date Collected: 08/11/25 10:28

Matrix: Drinking Water

Date Received: 08/13/25 10:20

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:28	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:28	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:28	1

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Client Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-165919-2

**Date Collected: 08/11/25 10:28
Date Received: 08/13/25 10:20**

**Matrix: Drinking Water
PWSID Number: HI0000331**

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:28	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:28	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:28	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:28	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:28	1
Perfluorohexanesulfonic acid (PFHxS)	2.6		2.0	ng/L		08/15/25 14:52	08/16/25 13:28	1
Perfluorohexanoic acid (PFHxA)	2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:28	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:28	1
Perfluorooctanesulfonic acid (PFOS)	2.3		2.0	ng/L		08/15/25 14:52	08/16/25 13:28	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:28	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:28	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:28	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:28	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:28	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:28	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:28	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:28	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:28	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:28	1
Perfluoropentanoic acid (PFPeA)	2.2		2.0	ng/L		08/15/25 14:52	08/16/25 13:28	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:28	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:28	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	90		50 - 200	08/15/25 14:52	08/16/25 13:28	1
13C6 PFDA	102		50 - 200	08/15/25 14:52	08/16/25 13:28	1
13C5 PFHxA	99		50 - 200	08/15/25 14:52	08/16/25 13:28	1
13C4 PFHpA	101		50 - 200	08/15/25 14:52	08/16/25 13:28	1
13C8 PFOA	102		50 - 200	08/15/25 14:52	08/16/25 13:28	1
13C9 PFNA	102		50 - 200	08/15/25 14:52	08/16/25 13:28	1
13C7 PFUnA	102		50 - 200	08/15/25 14:52	08/16/25 13:28	1
13C2 PFDoA	102		50 - 200	08/15/25 14:52	08/16/25 13:28	1
13C4 PFBA	102		50 - 200	08/15/25 14:52	08/16/25 13:28	1
13C5 PFPeA	101		50 - 200	08/15/25 14:52	08/16/25 13:28	1
13C3 PFBS	95		50 - 200	08/15/25 14:52	08/16/25 13:28	1
13C3 PFHxS	98		50 - 200	08/15/25 14:52	08/16/25 13:28	1
13C8 PFOS	105		50 - 200	08/15/25 14:52	08/16/25 13:28	1
13C2-4:2-FTS	114		50 - 200	08/15/25 14:52	08/16/25 13:28	1
13C2-6:2-FTS	100		50 - 200	08/15/25 14:52	08/16/25 13:28	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-165919-2

Date Collected: 08/11/25 10:28
Date Received: 08/13/25 10:20

Matrix: Drinking Water
PWSID Number: HI0000331

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2-8:2-FTS	103		50 - 200	08/15/25 14:52	08/16/25 13:28	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		08/14/25 03:35	08/15/25 00:37	1
Perfluorooctanesulfonic acid (PFOS)	2.3		2.0	ng/L		08/14/25 03:35	08/15/25 00:37	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:37	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:37	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:37	1
Perfluorohexanoic acid (PFHxA)	2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:37	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:37	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:37	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:37	1
Perfluorohexanesulfonic acid (PFHxS)	2.5		2.0	ng/L		08/14/25 03:35	08/15/25 00:37	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:37	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:37	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:37	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:37	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:37	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:37	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:37	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	94		70 - 130			08/14/25 03:35	08/15/25 00:37	1
13C2 PFHxA	99		70 - 130			08/14/25 03:35	08/15/25 00:37	1
13C2 PFDA	98		70 - 130			08/14/25 03:35	08/15/25 00:37	1
13C3-GenX	101		70 - 130			08/14/25 03:35	08/15/25 00:37	1

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-165919-3

Date Collected: 08/11/25 10:57
Date Received: 08/13/25 10:20

Matrix: Drinking Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:47	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:47	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:47	1

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Client Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

**Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-165919-3

Date Collected: 08/11/25 10:57
Date Received: 08/13/25 10:20

Matrix: Drinking Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:47	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:47	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:47	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:47	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:47	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:47	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:47	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:47	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:47	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:47	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:47	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:47	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:47	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:47	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:47	1
Nonafluoro-3,6-dioxahexanoic acid (NFDHA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:47	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:47	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:47	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:47	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:47	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:47	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		08/15/25 14:52	08/16/25 13:47	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	70		50 - 200	08/15/25 14:52	08/16/25 13:47	1
13C6 PFDA	87		50 - 200	08/15/25 14:52	08/16/25 13:47	1
13C5 PFHxA	80		50 - 200	08/15/25 14:52	08/16/25 13:47	1
13C4 PFHpA	84		50 - 200	08/15/25 14:52	08/16/25 13:47	1
13C8 PFOA	86		50 - 200	08/15/25 14:52	08/16/25 13:47	1
13C9 PFNA	87		50 - 200	08/15/25 14:52	08/16/25 13:47	1
13C7 PFUnA	89		50 - 200	08/15/25 14:52	08/16/25 13:47	1
13C2 PFDoA	92		50 - 200	08/15/25 14:52	08/16/25 13:47	1
13C4 PFBA	85		50 - 200	08/15/25 14:52	08/16/25 13:47	1
13C5 PFPeA	82		50 - 200	08/15/25 14:52	08/16/25 13:47	1
13C3 PFBS	104		50 - 200	08/15/25 14:52	08/16/25 13:47	1
13C3 PFHxS	104		50 - 200	08/15/25 14:52	08/16/25 13:47	1
13C8 PFOS	113		50 - 200	08/15/25 14:52	08/16/25 13:47	1
13C2-4:2-FTS	117		50 - 200	08/15/25 14:52	08/16/25 13:47	1
13C2-6:2-FTS	108		50 - 200	08/15/25 14:52	08/16/25 13:47	1
13C2-8:2-FTS	105		50 - 200	08/15/25 14:52	08/16/25 13:47	1

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Client Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071)

Lab Sample ID: 380-165919-3

Date Collected: 08/11/25 10:57
Date Received: 08/13/25 10:20

Matrix: Drinking Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:48	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:48	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:48	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:48	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:48	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:48	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:48	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:48	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:48	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:48	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:48	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:48	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:48	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:48	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:48	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:48	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:48	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:48	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	105		70 - 130			08/14/25 03:35	08/15/25 00:48	1
13C2 PFHxA	102		70 - 130			08/14/25 03:35	08/15/25 00:48	1
13C2 PFDA	105		70 - 130			08/14/25 03:35	08/15/25 00:48	1
13C3-GenX	103		70 - 130			08/14/25 03:35	08/15/25 00:48	1

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

Lab Sample ID: 380-165919-4

Date Collected: 08/11/25 11:15
Date Received: 08/13/25 10:20

Matrix: Drinking Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:39	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:39	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:39	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:39	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:39	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:39	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:39	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:39	1

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Client Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-165919-4

**Date Collected: 08/11/25 11:15
Date Received: 08/13/25 10:20**

**Matrix: Drinking Water
PWSID Number: HI0000331**

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:39	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:39	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:39	1
Perfluorooctanesulfonic acid (PFOS)	2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:39	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:39	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:39	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:39	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:39	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:39	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:39	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:39	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:39	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:39	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:39	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:39	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:39	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:39	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	76		50 - 200	08/15/25 07:13	08/15/25 17:39	1
13C6 PFDA	92		50 - 200	08/15/25 07:13	08/15/25 17:39	1
13C5 PFHxA	89		50 - 200	08/15/25 07:13	08/15/25 17:39	1
13C4 PFHpA	92		50 - 200	08/15/25 07:13	08/15/25 17:39	1
13C8 PFOA	92		50 - 200	08/15/25 07:13	08/15/25 17:39	1
13C9 PFNA	92		50 - 200	08/15/25 07:13	08/15/25 17:39	1
13C7 PFUnA	92		50 - 200	08/15/25 07:13	08/15/25 17:39	1
13C2 PFDoA	93		50 - 200	08/15/25 07:13	08/15/25 17:39	1
13C4 PFBA	89		50 - 200	08/15/25 07:13	08/15/25 17:39	1
13C5 PFPeA	90		50 - 200	08/15/25 07:13	08/15/25 17:39	1
13C3 PFBS	100		50 - 200	08/15/25 07:13	08/15/25 17:39	1
13C3 PFHxS	102		50 - 200	08/15/25 07:13	08/15/25 17:39	1
13C8 PFOS	100		50 - 200	08/15/25 07:13	08/15/25 17:39	1
13C2-4:2-FTS	118		50 - 200	08/15/25 07:13	08/15/25 17:39	1
13C2-6:2-FTS	111		50 - 200	08/15/25 07:13	08/15/25 17:39	1
13C2-8:2-FTS	105		50 - 200	08/15/25 07:13	08/15/25 17:39	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		08/14/25 03:35	08/15/25 00:58	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:58	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:58	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-165919-4

Date Collected: 08/11/25 11:15
Date Received: 08/13/25 10:20

Matrix: Drinking Water
PWSID Number: HI0000331

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		08/14/25 03:35	08/15/25 00:58	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:58	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:58	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:58	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:58	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:58	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:58	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:58	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:58	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:58	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:58	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:58	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:58	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:58	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 00:58	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	105		70 - 130			08/14/25 03:35	08/15/25 00:58	1
13C2 PFHxA	105		70 - 130			08/14/25 03:35	08/15/25 00:58	1
13C2 PFDA	107		70 - 130			08/14/25 03:35	08/15/25 00:58	1
13C3-GenX	100		70 - 130			08/14/25 03:35	08/15/25 00:58	1

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

Lab Sample ID: 380-165919-5

Date Collected: 08/11/25 11:39
Date Received: 08/13/25 10:20

Matrix: Drinking Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:48	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:48	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:48	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:48	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:48	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:48	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:48	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:48	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:48	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:48	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:48	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:48	1

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Client Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-165919-5

Date Collected: 08/11/25 11:39
Date Received: 08/13/25 10:20

Matrix: Drinking Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:48	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:48	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:48	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:48	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:48	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:48	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:48	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:48	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:48	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:48	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:48	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:48	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:48	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	76		50 - 200	08/15/25 07:13	08/15/25 17:48	1
13C6 PFDA	95		50 - 200	08/15/25 07:13	08/15/25 17:48	1
13C5 PFHxA	91		50 - 200	08/15/25 07:13	08/15/25 17:48	1
13C4 PFHpA	90		50 - 200	08/15/25 07:13	08/15/25 17:48	1
13C8 PFOA	93		50 - 200	08/15/25 07:13	08/15/25 17:48	1
13C9 PFNA	94		50 - 200	08/15/25 07:13	08/15/25 17:48	1
13C7 PFUnA	95		50 - 200	08/15/25 07:13	08/15/25 17:48	1
13C2 PFDoA	96		50 - 200	08/15/25 07:13	08/15/25 17:48	1
13C4 PFBA	94		50 - 200	08/15/25 07:13	08/15/25 17:48	1
13C5 PFPeA	90		50 - 200	08/15/25 07:13	08/15/25 17:48	1
13C3 PFBS	99		50 - 200	08/15/25 07:13	08/15/25 17:48	1
13C3 PFHxS	98		50 - 200	08/15/25 07:13	08/15/25 17:48	1
13C8 PFOS	99		50 - 200	08/15/25 07:13	08/15/25 17:48	1
13C2-4:2-FTS	114		50 - 200	08/15/25 07:13	08/15/25 17:48	1
13C2-6:2-FTS	101		50 - 200	08/15/25 07:13	08/15/25 17:48	1
13C2-8:2-FTS	100		50 - 200	08/15/25 07:13	08/15/25 17:48	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		08/14/25 03:35	08/15/25 01:07	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:07	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:07	1

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Client Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-165919-5

Date Collected: 08/11/25 11:39
Date Received: 08/13/25 10:20

Matrix: Drinking Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:07	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:07	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:07	1
Perfluorodecanoic acid (PFDA)	2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:07	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:07	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:07	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:07	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:07	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:07	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:07	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:07	1
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:07	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:07	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	100		70 - 130			08/14/25 03:35	08/15/25 01:07	1
13C2 PFHxA	104		70 - 130			08/14/25 03:35	08/15/25 01:07	1
13C2 PFDA	110		70 - 130			08/14/25 03:35	08/15/25 01:07	1
13C3-GenX	100		70 - 130			08/14/25 03:35	08/15/25 01:07	1

Client Sample ID: FB: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-165919-6

Date Collected: 08/11/25 09:56
Date Received: 08/13/25 10:20

Matrix: Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:58	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:58	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:58	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:58	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:58	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:58	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:58	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:58	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:58	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:58	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:58	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:58	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:58	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:58	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:58	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:58	1

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Client Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

Client Sample ID: FB: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-165919-6

Date Collected: 08/11/25 09:56

Matrix: Water

Date Received: 08/13/25 10:20

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:58	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:58	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:58	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:58	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:58	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:58	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:58	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:58	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 17:58	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	73		50 - 200			08/15/25 07:13	08/15/25 17:58	1
13C6 PFDA	97		50 - 200			08/15/25 07:13	08/15/25 17:58	1
13C5 PFHxA	100		50 - 200			08/15/25 07:13	08/15/25 17:58	1
13C4 PFHpA	99		50 - 200			08/15/25 07:13	08/15/25 17:58	1
13C8 PFOA	99		50 - 200			08/15/25 07:13	08/15/25 17:58	1
13C9 PFNA	97		50 - 200			08/15/25 07:13	08/15/25 17:58	1
13C7 PFUnA	95		50 - 200			08/15/25 07:13	08/15/25 17:58	1
13C2 PFDoA	97		50 - 200			08/15/25 07:13	08/15/25 17:58	1
13C4 PFBA	104		50 - 200			08/15/25 07:13	08/15/25 17:58	1
13C5 PFPeA	103		50 - 200			08/15/25 07:13	08/15/25 17:58	1
13C3 PFBS	96		50 - 200			08/15/25 07:13	08/15/25 17:58	1
13C3 PFHxS	96		50 - 200			08/15/25 07:13	08/15/25 17:58	1
13C8 PFOS	97		50 - 200			08/15/25 07:13	08/15/25 17:58	1
13C2-4:2-FTS	122		50 - 200			08/15/25 07:13	08/15/25 17:58	1
13C2-6:2-FTS	107		50 - 200			08/15/25 07:13	08/15/25 17:58	1
13C2-8:2-FTS	104		50 - 200			08/15/25 07:13	08/15/25 17:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:17	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:17	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:17	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:17	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:17	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:17	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:17	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:17	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:17	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:17	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:17	1

Eurofins Eaton Analytical Pomona

Client Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

Client Sample ID: FB: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-165919-6

Date Collected: 08/11/25 09:56

Matrix: Water

Date Received: 08/13/25 10:20

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:17	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:17	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:17	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:17	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:17	1
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:17	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:17	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	108		70 - 130			08/14/25 03:35	08/15/25 01:17	1
13C2 PFHxA	109		70 - 130			08/14/25 03:35	08/15/25 01:17	1
13C2 PFDA	112		70 - 130			08/14/25 03:35	08/15/25 01:17	1
13C3-GenX	108		70 - 130			08/14/25 03:35	08/15/25 01:17	1

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

Lab Sample ID: 380-165919-7

Date Collected: 08/11/25 10:28

Matrix: Water

Date Received: 08/13/25 10:20

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:08	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:08	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:08	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:08	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:08	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:08	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:08	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:08	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:08	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:08	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:08	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:08	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:08	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:08	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:08	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:08	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:08	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:08	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:08	1

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Client Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-165919-7

Date Collected: 08/11/25 10:28

Matrix: Water

Date Received: 08/13/25 10:20

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:08	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:08	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:08	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:08	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:08	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:08	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	76		50 - 200			08/15/25 07:13	08/15/25 18:08	1
13C6 PFDA	99		50 - 200			08/15/25 07:13	08/15/25 18:08	1
13C5 PFHxA	104		50 - 200			08/15/25 07:13	08/15/25 18:08	1
13C4 PFHpA	101		50 - 200			08/15/25 07:13	08/15/25 18:08	1
13C8 PFOA	102		50 - 200			08/15/25 07:13	08/15/25 18:08	1
13C9 PFNA	100		50 - 200			08/15/25 07:13	08/15/25 18:08	1
13C7 PFUnA	100		50 - 200			08/15/25 07:13	08/15/25 18:08	1
13C2 PFDoA	100		50 - 200			08/15/25 07:13	08/15/25 18:08	1
13C4 PFBA	106		50 - 200			08/15/25 07:13	08/15/25 18:08	1
13C5 PFPeA	104		50 - 200			08/15/25 07:13	08/15/25 18:08	1
13C3 PFBS	99		50 - 200			08/15/25 07:13	08/15/25 18:08	1
13C3 PFHxS	101		50 - 200			08/15/25 07:13	08/15/25 18:08	1
13C8 PFOS	101		50 - 200			08/15/25 07:13	08/15/25 18:08	1
13C2-4:2-FTS	127		50 - 200			08/15/25 07:13	08/15/25 18:08	1
13C2-6:2-FTS	110		50 - 200			08/15/25 07:13	08/15/25 18:08	1
13C2-8:2-FTS	106		50 - 200			08/15/25 07:13	08/15/25 18:08	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:27	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:27	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:27	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:27	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:27	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:27	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:27	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:27	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:27	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:27	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:27	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:27	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:27	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:27	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:27	1

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Client Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-165919-7

Date Collected: 08/11/25 10:28
Date Received: 08/13/25 10:20

Matrix: Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:27	1
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:27	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:27	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	102		70 - 130			08/14/25 03:35	08/15/25 01:27	1
13C2 PFHxA	100		70 - 130			08/14/25 03:35	08/15/25 01:27	1
13C2 PFDA	109		70 - 130			08/14/25 03:35	08/15/25 01:27	1
13C3-GenX	98		70 - 130			08/14/25 03:35	08/15/25 01:27	1

Client Sample ID: FB: AIEA GULCH WELLS PUMP 1
(331-201-TP071)

Lab Sample ID: 380-165919-8

Date Collected: 08/11/25 10:57
Date Received: 08/13/25 10:20

Matrix: Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:17	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:17	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:17	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:17	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:17	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:17	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:17	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:17	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:17	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:17	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:17	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:17	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:17	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:17	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:17	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:17	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:17	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:17	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:17	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:17	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:17	1

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Client Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

**Client Sample ID: FB: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-165919-8

Date Collected: 08/11/25 10:57

Matrix: Water

Date Received: 08/13/25 10:20

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:17	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:17	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:17	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:17	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	65		50 - 200			08/15/25 07:13	08/15/25 18:17	1
13C6 PFDA	88		50 - 200			08/15/25 07:13	08/15/25 18:17	1
13C5 PFHxA	88		50 - 200			08/15/25 07:13	08/15/25 18:17	1
13C4 PFHpA	89		50 - 200			08/15/25 07:13	08/15/25 18:17	1
13C8 PFOA	89		50 - 200			08/15/25 07:13	08/15/25 18:17	1
13C9 PFNA	86		50 - 200			08/15/25 07:13	08/15/25 18:17	1
13C7 PFUnA	87		50 - 200			08/15/25 07:13	08/15/25 18:17	1
13C2 PFDoA	89		50 - 200			08/15/25 07:13	08/15/25 18:17	1
13C4 PFBA	87		50 - 200			08/15/25 07:13	08/15/25 18:17	1
13C5 PFPeA	84		50 - 200			08/15/25 07:13	08/15/25 18:17	1
13C3 PFBS	102		50 - 200			08/15/25 07:13	08/15/25 18:17	1
13C3 PFHxS	105		50 - 200			08/15/25 07:13	08/15/25 18:17	1
13C8 PFOS	101		50 - 200			08/15/25 07:13	08/15/25 18:17	1
13C2-4:2-FTS	121		50 - 200			08/15/25 07:13	08/15/25 18:17	1
13C2-6:2-FTS	109		50 - 200			08/15/25 07:13	08/15/25 18:17	1
13C2-8:2-FTS	110		50 - 200			08/15/25 07:13	08/15/25 18:17	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		08/14/25 03:35	08/15/25 01:36	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:36	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:36	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:36	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:36	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:36	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:36	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:36	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:36	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:36	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:36	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:36	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:36	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:36	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:36	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:36	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:36	1

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Client Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

**Client Sample ID: FB: AIEA GULCH WELLS PUMP 1
(331-201-TP071)**

Lab Sample ID: 380-165919-8

Date Collected: 08/11/25 10:57

Matrix: Water

Date Received: 08/13/25 10:20

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:36	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	100		70 - 130			08/14/25 03:35	08/15/25 01:36	1
13C2 PFHxA	103		70 - 130			08/14/25 03:35	08/15/25 01:36	1
13C2 PFDA	110		70 - 130			08/14/25 03:35	08/15/25 01:36	1
13C3-GenX	106		70 - 130			08/14/25 03:35	08/15/25 01:36	1

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

Lab Sample ID: 380-165919-9

Date Collected: 08/11/25 11:15

Matrix: Water

Date Received: 08/13/25 10:20

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecanoic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:27	1
9-Chlorohexadecafluoro-3-oxanonanoic acid (9Cl-PF3ONS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:27	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:27	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:27	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:27	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:27	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:27	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:27	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:27	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:27	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:27	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:27	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:27	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:27	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:27	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:27	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:27	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:27	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:27	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:27	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:27	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:27	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:27	1

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Client Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-165919-9

**Date Collected: 08/11/25 11:15
Date Received: 08/13/25 10:20**

**Matrix: Water
PWSID Number: HI0000331**

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:27	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:27	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	77		50 - 200			08/15/25 07:13	08/15/25 18:27	1
13C6 PFDA	99		50 - 200			08/15/25 07:13	08/15/25 18:27	1
13C5 PFHxA	102		50 - 200			08/15/25 07:13	08/15/25 18:27	1
13C4 PFHpA	103		50 - 200			08/15/25 07:13	08/15/25 18:27	1
13C8 PFOA	100		50 - 200			08/15/25 07:13	08/15/25 18:27	1
13C9 PFNA	99		50 - 200			08/15/25 07:13	08/15/25 18:27	1
13C7 PFUnA	100		50 - 200			08/15/25 07:13	08/15/25 18:27	1
13C2 PFDoA	98		50 - 200			08/15/25 07:13	08/15/25 18:27	1
13C4 PFBA	98		50 - 200			08/15/25 07:13	08/15/25 18:27	1
13C5 PFPeA	97		50 - 200			08/15/25 07:13	08/15/25 18:27	1
13C3 PFBS	99		50 - 200			08/15/25 07:13	08/15/25 18:27	1
13C3 PFHxS	100		50 - 200			08/15/25 07:13	08/15/25 18:27	1
13C8 PFOS	102		50 - 200			08/15/25 07:13	08/15/25 18:27	1
13C2-4:2-FTS	125		50 - 200			08/15/25 07:13	08/15/25 18:27	1
13C2-6:2-FTS	111		50 - 200			08/15/25 07:13	08/15/25 18:27	1
13C2-8:2-FTS	106		50 - 200			08/15/25 07:13	08/15/25 18:27	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		08/14/25 03:35	08/15/25 01:46	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:46	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:46	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:46	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:46	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:46	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:46	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:46	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:46	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:46	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:46	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:46	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:46	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:46	1
Perfluorotridecanoic acid (PFTDA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:46	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:46	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUs)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:46	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:46	1

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Client Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-165919-9

Date Collected: 08/11/25 11:15
Date Received: 08/13/25 10:20

Matrix: Water
PWSID Number: HI0000331

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	98		70 - 130	08/14/25 03:35	08/15/25 01:46	1
13C2 PFHxA	104		70 - 130	08/14/25 03:35	08/15/25 01:46	1
13C2 PFDA	106		70 - 130	08/14/25 03:35	08/15/25 01:46	1
13C3-GenX	98		70 - 130	08/14/25 03:35	08/15/25 01:46	1

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

Lab Sample ID: 380-165919-10

Date Collected: 08/11/25 11:39
Date Received: 08/13/25 10:20

Matrix: Water
PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosfluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:36	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:36	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:36	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:36	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:36	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:36	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:36	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:36	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:36	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:36	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:36	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:36	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:36	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:36	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:36	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:36	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:36	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:36	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:36	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:36	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:36	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:36	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:36	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:36	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		08/15/25 07:13	08/15/25 18:36	1

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Client Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-165919-10

Date Collected: 08/11/25 11:39
Date Received: 08/13/25 10:20

Matrix: Water
PWSID Number: HI0000331

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	79		50 - 200	08/15/25 07:13	08/15/25 18:36	1
13C6 PFDA	99		50 - 200	08/15/25 07:13	08/15/25 18:36	1
13C5 PFHxA	99		50 - 200	08/15/25 07:13	08/15/25 18:36	1
13C4 PFHpA	101		50 - 200	08/15/25 07:13	08/15/25 18:36	1
13C8 PFOA	100		50 - 200	08/15/25 07:13	08/15/25 18:36	1
13C9 PFNA	102		50 - 200	08/15/25 07:13	08/15/25 18:36	1
13C7 PFUnA	98		50 - 200	08/15/25 07:13	08/15/25 18:36	1
13C2 PFDoA	96		50 - 200	08/15/25 07:13	08/15/25 18:36	1
13C4 PFBA	98		50 - 200	08/15/25 07:13	08/15/25 18:36	1
13C5 PFPeA	101		50 - 200	08/15/25 07:13	08/15/25 18:36	1
13C3 PFBS	100		50 - 200	08/15/25 07:13	08/15/25 18:36	1
13C3 PFHxS	100		50 - 200	08/15/25 07:13	08/15/25 18:36	1
13C8 PFOS	101		50 - 200	08/15/25 07:13	08/15/25 18:36	1
13C2-4:2-FTS	124		50 - 200	08/15/25 07:13	08/15/25 18:36	1
13C2-6:2-FTS	105		50 - 200	08/15/25 07:13	08/15/25 18:36	1
13C2-8:2-FTS	106		50 - 200	08/15/25 07:13	08/15/25 18:36	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:56	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:56	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:56	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:56	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:56	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:56	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:56	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:56	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:56	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:56	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:56	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:56	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:56	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:56	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:56	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:56	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:56	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		08/14/25 03:35	08/15/25 01:56	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	106		70 - 130			08/14/25 03:35	08/15/25 01:56	1
13C2 PFHxA	111		70 - 130			08/14/25 03:35	08/15/25 01:56	1
13C2 PFDA	115		70 - 130			08/14/25 03:35	08/15/25 01:56	1
13C3-GenX	111		70 - 130			08/14/25 03:35	08/15/25 01:56	1

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Action Limit Summary

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-165919-1

PWSID Number: HI0000331

Compliance Check

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

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

Client Sample ID: HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-165919-2

(331-206-TP065)

PWSID Number: HI0000331

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)	2.6		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.3		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	533	Total/NA
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	537.1	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.3		ng/L	4	2.0	537.1	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.5		ng/L	10	2.0	537.1	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	537.1	Total/NA

Client Sample ID: AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-165919-3

(331-201-TP071)

PWSID Number: HI0000331

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

Eurofins Eaton Analytical Pomona

Action Limit Summary

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

Client Sample ID: AIEA GULCH WELLS PUMP 1
(331-201-TP071) (Continued)
PWSID Number: HI0000331

Lab Sample ID: 380-165919-3

Compliance Check

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

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

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

Lab Sample ID: 380-165919-4

Compliance Check

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

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

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

Lab Sample ID: 380-165919-5

Compliance Check

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

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

Eurofins Eaton Analytical Pomona

Action Limit Summary

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-165919-5

Compliance Check

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

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

Client Sample ID: FB: MOANALUA WELLS (331-223-TP202)
PWSID Number: HI0000331

Lab Sample ID: 380-165919-6

Compliance Check

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

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

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

Lab Sample ID: 380-165919-7

Compliance Check

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

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

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Action Limit Summary

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-165919-7

Compliance Check

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

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

Client Sample ID: FB: AIEA GULCH WELLS PUMP 1
(331-201-TP071)
PWSID Number: HI0000331

Lab Sample ID: 380-165919-8

Compliance Check

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

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

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

Lab Sample ID: 380-165919-9

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

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Action Limit Summary

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-165919-9

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

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

Lab Sample ID: 380-165919-10

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: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		d5NEFOS (70-130)	PFHxA (70-130)	PFDA (70-130)	GenX (70-130)
380-165919-1	MOANALUA WELLS (331-223-T	104	103	110	103
380-165919-2	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	94	99	98	101
380-165919-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	105	102	105	103
380-165919-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	105	105	107	100
380-165919-5	AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	100	104	110	100
Surrogate Legend					
d5NEFOS = d5-NEtFOSAA					
PFHxA = 13C2 PFHxA					
PFDA = 13C2 PFDA					
GenX = 13C3-GenX					

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		d5NEFOS (70-130)	PFHxA (70-130)	PFDA (70-130)	GenX (70-130)
380-165915-B-1-A MS	Matrix Spike	101	98	109	101
380-165915-C-1-A MSD	Matrix Spike Duplicate	98	99	106	100
380-165919-6	FB: MOANALUA WELLS (331-223-TP202)	108	109	112	108
380-165919-7	FB: HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	102	100	109	98
380-165919-8	FB: AIEA GULCH WELLS PUMF 1 (331-201-TP071)	100	103	110	106
380-165919-9	FB: AIEA GULCH WELLS PUMF 2 (331-202-TP072)	98	104	106	98
380-165919-10	FB: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	106	111	115	111
LCS 380-168419/22-A	Lab Control Sample	99	94	103	94
MBL 380-168419/20-A	Method Blank	103	104	108	106
MRL 380-168419/21-A	Lab Control Sample	97	97	102	97
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: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Matrix: Drinking Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	HFPODA (50-200)	C6PFDA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	13C7PUA (50-200)	PFDaA (50-200)
380-165919-1	MOANALUA WELLS (331-223-T	101	103	107	108	109	105	104	106
380-165919-2	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	90	102	99	101	102	102	102	102
380-165919-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	70	87	80	84	86	87	89	92
380-165919-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	76	92	89	92	92	92	92	93
380-165919-5	AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	76	95	91	90	93	94	95	96

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)
380-165919-1	MOANALUA WELLS (331-223-T	106	105	105	106	105	112	105	99
380-165919-2	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	102	101	95	98	105	114	100	103
380-165919-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	85	82	104	104	113	117	108	105
380-165919-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	89	90	100	102	100	118	111	105
380-165919-5	AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	94	90	99	98	99	114	101	100

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

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)
380-165863-B-1-A MS	Matrix Spike	100	107	106	106	107	104	105	107
380-165863-C-1-A MSD	Matrix Spike Duplicate	95	105	103	104	106	104	102	107
380-165913-E-1-A MSD	Matrix Spike Duplicate	97	101	100	102	105	102	102	100
380-165913-F-1-A MS	Matrix Spike	94	102	104	104	109	102	104	105

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Isotope Dilution Summary

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

Method: 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)
Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	HFPODA (50-200)	C6PFDA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	13C7PUA (50-200)	PFDaA (50-200)
380-165919-6	FB: MOANALUA WELLS (331-2	73	97	100	99	99	97	95	97
380-165919-7	FB: HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	76	99	104	101	102	100	100	100
380-165919-8	FB: AIEA GULCH WELLS PUMF 1 (331-201-TP071)	65	88	88	89	89	86	87	89
380-165919-9	FB: AIEA GULCH WELLS PUMF 2 (331-202-TP072)	77	99	102	103	100	99	100	98
380-165919-10	FB: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	79	99	99	101	100	102	98	96
380-166126-B-13-A MS	Matrix Spike	104	104	104	99	103	103	104	104
380-166126-C-13-A MSD	Matrix Spike Duplicate	106	104	104	102	105	103	103	107
LCS 380-168603/22-A	Lab Control Sample	92	113	111	111	111	111	109	107
LCS 380-168677/21-A	Lab Control Sample	76	90	88	87	87	88	93	94
LCS 380-168753/22-A	Lab Control Sample	85	96	91	90	92	94	97	99
MBL 380-168603/20-A	Method Blank	91	108	111	113	111	105	108	110
MBL 380-168677/19-A	Method Blank	56	88	86	87	86	85	91	90
MBL 380-168753/20-A	Method Blank	80	97	92	96	97	97	98	103
MRL 380-168603/21-A	Lab Control Sample	89	103	111	104	108	103	105	106
MRL 380-168677/20-A	Lab Control Sample	68	92	90	92	95	91	91	93
MRL 380-168753/21-A	Lab Control Sample	75	89	88	91	92	91	86	91
		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)
380-165863-B-1-A MS	Matrix Spike	104	107	108	105	111	114	107	108
380-165863-C-1-A MSD	Matrix Spike Duplicate	105	105	101	101	108	107	104	101
380-165913-E-1-A MSD	Matrix Spike Duplicate	104	105	107	106	105	108	106	98
380-165913-F-1-A MS	Matrix Spike	105	106	104	102	104	113	115	97
380-165919-6	FB: MOANALUA WELLS (331-223-TP202)	104	103	96	96	97	122	107	104
380-165919-7	FB: HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	106	104	99	101	101	127	110	106
380-165919-8	FB: AIEA GULCH WELLS PUMF 1 (331-201-TP071)	87	84	102	105	101	121	109	110
380-165919-9	FB: AIEA GULCH WELLS PUMF 2 (331-202-TP072)	98	97	99	100	102	125	111	106
380-165919-10	FB: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	98	101	100	100	101	124	105	106
380-166126-B-13-A MS	Matrix Spike	105	119	99	101	99	113	106	103
380-166126-C-13-A MSD	Matrix Spike Duplicate	104	118	102	99	98	115	109	105
LCS 380-168603/22-A	Lab Control Sample	108	110	108	108	111	118	108	102
LCS 380-168677/21-A	Lab Control Sample	90	89	101	101	100	110	106	105
LCS 380-168753/22-A	Lab Control Sample	97	89	98	95	103	104	101	103
MBL 380-168603/20-A	Method Blank	107	105	112	112	111	115	107	103
MBL 380-168677/19-A	Method Blank	84	81	103	105	101	117	107	102
MBL 380-168753/20-A	Method Blank	100	94	99	100	107	101	101	99
MRL 380-168603/21-A	Lab Control Sample	109	107	108	106	107	115	110	101
MRL 380-168677/20-A	Lab Control Sample	92	90	99	102	100	118	106	103
MRL 380-168753/21-A	Lab Control Sample	92	86	108	104	111	111	105	112

Surrogate Legend

HFPODA = 13C3 HFPO-DA

Eurofins Eaton Analytical Pomona

Isotope Dilution Summary

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

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QC Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: MBL 380-168603/20-A

Matrix: Water

Analysis Batch: 168681

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 168603

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		08/14/25 20:25	08/15/25 10:01	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		08/14/25 20:25	08/15/25 10:01	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		08/14/25 20:25	08/15/25 10:01	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		08/14/25 20:25	08/15/25 10:01	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		08/14/25 20:25	08/15/25 10:01	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		08/14/25 20:25	08/15/25 10:01	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		08/14/25 20:25	08/15/25 10:01	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		08/14/25 20:25	08/15/25 10:01	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		08/14/25 20:25	08/15/25 10:01	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		08/14/25 20:25	08/15/25 10:01	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		08/14/25 20:25	08/15/25 10:01	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		08/14/25 20:25	08/15/25 10:01	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		08/14/25 20:25	08/15/25 10:01	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		08/14/25 20:25	08/15/25 10:01	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		08/14/25 20:25	08/15/25 10:01	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		08/14/25 20:25	08/15/25 10:01	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		08/14/25 20:25	08/15/25 10:01	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		08/14/25 20:25	08/15/25 10:01	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		08/14/25 20:25	08/15/25 10:01	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		08/14/25 20:25	08/15/25 10:01	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		08/14/25 20:25	08/15/25 10:01	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		08/14/25 20:25	08/15/25 10:01	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		08/14/25 20:25	08/15/25 10:01	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		08/14/25 20:25	08/15/25 10:01	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		08/14/25 20:25	08/15/25 10:01	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	91		50 - 200	08/14/25 20:25	08/15/25 10:01	1
13C6 PFDA	108		50 - 200	08/14/25 20:25	08/15/25 10:01	1
13C5 PFHxA	111		50 - 200	08/14/25 20:25	08/15/25 10:01	1
13C4 PFHpA	113		50 - 200	08/14/25 20:25	08/15/25 10:01	1
13C8 PFOA	111		50 - 200	08/14/25 20:25	08/15/25 10:01	1
13C9 PFNA	105		50 - 200	08/14/25 20:25	08/15/25 10:01	1
13C7 PFUnA	108		50 - 200	08/14/25 20:25	08/15/25 10:01	1
13C2 PFDoA	110		50 - 200	08/14/25 20:25	08/15/25 10:01	1
13C4 PFBA	107		50 - 200	08/14/25 20:25	08/15/25 10:01	1
13C5 PFPeA	105		50 - 200	08/14/25 20:25	08/15/25 10:01	1
13C3 PFBS	112		50 - 200	08/14/25 20:25	08/15/25 10:01	1

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: MBL 380-168603/20-A

Matrix: Water

Analysis Batch: 168681

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 168603

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFHxS	112		50 - 200	08/14/25 20:25	08/15/25 10:01	1
13C8 PFOS	111		50 - 200	08/14/25 20:25	08/15/25 10:01	1
13C2-4:2-FTS	115		50 - 200	08/14/25 20:25	08/15/25 10:01	1
13C2-6:2-FTS	107		50 - 200	08/14/25 20:25	08/15/25 10:01	1
13C2-8:2-FTS	103		50 - 200	08/14/25 20:25	08/15/25 10:01	1

Lab Sample ID: LCS 380-168603/22-A

Matrix: Water

Analysis Batch: 168681

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 168603

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	60.1	56.6		ng/L		94	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	60.1	57.6		ng/L		96	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.1	57.2		ng/L		95	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.1	59.5		ng/L		99	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.1	58.8		ng/L		98	70 - 130
Perfluorodecanoic acid (PFDA)	60.1	56.8		ng/L		94	70 - 130
Perfluorododecanoic acid (PFDoA)	60.1	59.7		ng/L		99	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.1	58.2		ng/L		97	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.1	59.1		ng/L		98	70 - 130
Perfluorohexanoic acid (PFHxA)	60.1	61.3		ng/L		102	70 - 130
Perfluorononanoic acid (PFNA)	60.1	58.7		ng/L		98	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.1	57.2		ng/L		95	70 - 130
Perfluorooctanoic acid (PFOA)	60.1	59.0		ng/L		98	70 - 130
Perfluoroundecanoic acid (PFUnA)	60.1	58.0		ng/L		97	70 - 130
Perfluorobutanoic acid (PFBA)	60.1	59.0		ng/L		98	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.1	63.5		ng/L		106	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.1	59.4		ng/L		99	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.1	60.8		ng/L		101	70 - 130
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	60.1	55.1		ng/L		92	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	60.1	59.7		ng/L		99	70 - 130
Perfluoro 3 methoxypropanoic acid (PFMPA)	60.1	57.6		ng/L		96	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.1	56.2		ng/L		93	70 - 130
Perfluoropentanoic acid (PFPeA)	60.1	57.4		ng/L		95	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: LCS 380-168603/22-A

Matrix: Water

Analysis Batch: 168681

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 168603

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanesulfonic acid (PFHpS)	60.1	57.1		ng/L		95	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	60.1	58.1		ng/L		97	70 - 130
Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits				
13C3 HFPO-DA	92		50 - 200				
13C6 PFDA	113		50 - 200				
13C5 PFHxA	111		50 - 200				
13C4 PFHpA	111		50 - 200				
13C8 PFOA	111		50 - 200				
13C9 PFNA	111		50 - 200				
13C7 PFUnA	109		50 - 200				
13C2 PFDoA	107		50 - 200				
13C4 PFBA	108		50 - 200				
13C5 PFPeA	110		50 - 200				
13C3 PFBS	108		50 - 200				
13C3 PFHxS	108		50 - 200				
13C8 PFOS	111		50 - 200				
13C2-4:2-FTS	118		50 - 200				
13C2-6:2-FTS	108		50 - 200				
13C2-8:2-FTS	102		50 - 200				

Lab Sample ID: MRL 380-168603/21-A

Matrix: Water

Analysis Batch: 168681

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 168603

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	2.00	J	ng/L		100	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	2.00	2.04	J	ng/L		102	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	2.09	J	ng/L		104	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	2.02	J	ng/L		101	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.19	J	ng/L		109	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.17	J	ng/L		108	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.08	J	ng/L		104	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.18	J	ng/L		109	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.01	J	ng/L		100	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	2.12	J	ng/L		106	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.24	J	ng/L		112	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.28	J	ng/L		114	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.10	J	ng/L		105	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: MRL 380-168603/21-A

Matrix: Water

Analysis Batch: 168681

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 168603

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	2.00	2.11	J	ng/L		105	50 - 150
Perfluorobutanoic acid (PFBA)	2.00	2.17	J	ng/L		108	50 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.00	2.32	J	ng/L		116	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.00	2.23	J	ng/L		111	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.00	2.18	J	ng/L		109	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.00	2.00	J	ng/L		100	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	2.00	2.02	J	ng/L		101	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.00	1.99	J	ng/L		99	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.00	2.20	J	ng/L		110	50 - 150
Perfluoropentanoic acid (PFPeA)	2.00	2.16	J	ng/L		108	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.00	2.18	J	ng/L		109	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.00	2.06	J	ng/L		103	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	Limits
13C3 HFPO-DA	89		50 - 200
13C6 PFDA	103		50 - 200
13C5 PFHxA	111		50 - 200
13C4 PFHpA	104		50 - 200
13C8 PFOA	108		50 - 200
13C9 PFNA	103		50 - 200
13C7 PFUnA	105		50 - 200
13C2 PFDoA	106		50 - 200
13C4 PFBA	109		50 - 200
13C5 PFPeA	107		50 - 200
13C3 PFBS	108		50 - 200
13C3 PFHxS	106		50 - 200
13C8 PFOS	107		50 - 200
13C2-4:2-FTS	115		50 - 200
13C2-6:2-FTS	110		50 - 200
13C2-8:2-FTS	101		50 - 200

Lab Sample ID: 380-165913-E-1-A MSD

Matrix: Water

Analysis Batch: 168681

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 168603

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 (11CI-PF3OUdS)	<2.0		60.4	59.2		ng/L		98	70 - 130	2	30

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-165913-E-1-A MSD

Matrix: Water

Analysis Batch: 168681

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 168603

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.4	59.4		ng/L		98	70 - 130	0	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.4	62.2		ng/L		103	70 - 130	6	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.4	60.4		ng/L		100	70 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.4	61.6		ng/L		100	70 - 130	0	30
Perfluorodecanoic acid (PFDA)	<2.0		60.4	60.2		ng/L		100	70 - 130	2	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.4	62.9		ng/L		104	70 - 130	6	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.4	61.8		ng/L		101	70 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.4	61.0		ng/L		99	70 - 130	2	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.4	64.1		ng/L		103	70 - 130	2	30
Perfluorononanoic acid (PFNA)	<2.0		60.4	61.8		ng/L		102	70 - 130	2	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.4	62.9		ng/L		101	70 - 130	1	30
Perfluorooctanoic acid (PFOA)	<2.0		60.4	62.2		ng/L		101	70 - 130	5	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.4	60.1		ng/L		100	70 - 130	1	30
Perfluorobutanoic acid (PFBA)	<2.0		60.4	61.7		ng/L		101	70 - 130	3	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.4	62.3		ng/L		103	70 - 130	2	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.4	65.2		ng/L		108	70 - 130	6	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.4	60.4		ng/L		100	70 - 130	1	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.4	58.7		ng/L		97	70 - 130	8	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.4	58.3		ng/L		97	70 - 130	1	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.4	56.5		ng/L		94	70 - 130	2	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.4	61.7		ng/L		102	70 - 130	2	30
Perfluoropentanoic acid (PFPeA)	2.0		60.4	62.5		ng/L		100	70 - 130	3	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.4	61.2		ng/L		101	70 - 130	1	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.4	58.8		ng/L		97	70 - 130	3	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C3 HFPO-DA	97		50 - 200
13C6 PFDA	101		50 - 200
13C5 PFHxA	100		50 - 200
13C4 PFHpA	102		50 - 200
13C8 PFOA	105		50 - 200
13C9 PFNA	102		50 - 200
13C7 PFUnA	102		50 - 200
13C2 PFDoA	100		50 - 200

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-165913-E-1-A MSD

Matrix: Water

Analysis Batch: 168681

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 168603

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C4 PFBA	104		50 - 200
13C5 PFPeA	105		50 - 200
13C3 PFBS	107		50 - 200
13C3 PFHxS	106		50 - 200
13C8 PFOS	105		50 - 200
13C2-4:2-FTS	108		50 - 200
13C2-6:2-FTS	106		50 - 200
13C2-8:2-FTS	98		50 - 200

Lab Sample ID: 380-165913-F-1-A MS

Matrix: Water

Analysis Batch: 168681

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 168603

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		60.4	58.3		ng/L		97	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		60.4	59.6		ng/L		99	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.4	58.6		ng/L		97	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.4	60.1		ng/L		100	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.4	61.8		ng/L		100	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.4	61.6		ng/L		102	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.4	59.4		ng/L		98	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.4	61.4		ng/L		100	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.4	62.3		ng/L		101	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		60.4	62.8		ng/L		101	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.4	62.8		ng/L		104	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.4	62.4		ng/L		100	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.4	58.9		ng/L		95	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.4	59.6		ng/L		99	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.4	60.2		ng/L		98	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.4	63.5		ng/L		105	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.4	61.6		ng/L		102	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.4	60.1		ng/L		100	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.4	54.1		ng/L		90	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<2.0		60.4	58.6		ng/L		97	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.4	57.9		ng/L		96	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-165913-F-1-A MS

Matrix: Water

Analysis Batch: 168681

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 168603

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.4	60.6		ng/L		100	70 - 130
Perfluoropentanoic acid (PFPeA)	2.0		60.4	60.6		ng/L		97	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.4	60.3		ng/L		100	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.4	60.8		ng/L		101	70 - 130
Isotope Dilution	MS %Recovery	MS Qualifier	Limits						
13C3 HFPO-DA	94		50 - 200						
13C6 PFDA	102		50 - 200						
13C5 PFHxA	104		50 - 200						
13C4 PFHpA	104		50 - 200						
13C8 PFOA	109		50 - 200						
13C9 PFNA	102		50 - 200						
13C7 PFUnA	104		50 - 200						
13C2 PFDoA	105		50 - 200						
13C4 PFBA	105		50 - 200						
13C5 PFPeA	106		50 - 200						
13C3 PFBS	104		50 - 200						
13C3 PFHxS	102		50 - 200						
13C8 PFOS	104		50 - 200						
13C2-4:2-FTS	113		50 - 200						
13C2-6:2-FTS	115		50 - 200						
13C2-8:2-FTS	97		50 - 200						

Lab Sample ID: MBL 380-168677/19-A

Matrix: Water

Analysis Batch: 168792

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 168677

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		08/15/25 07:13	08/15/25 16:42	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		08/15/25 07:13	08/15/25 16:42	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		08/15/25 07:13	08/15/25 16:42	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		08/15/25 07:13	08/15/25 16:42	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		08/15/25 07:13	08/15/25 16:42	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		08/15/25 07:13	08/15/25 16:42	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		08/15/25 07:13	08/15/25 16:42	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		08/15/25 07:13	08/15/25 16:42	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		08/15/25 07:13	08/15/25 16:42	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		08/15/25 07:13	08/15/25 16:42	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		08/15/25 07:13	08/15/25 16:42	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		08/15/25 07:13	08/15/25 16:42	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		08/15/25 07:13	08/15/25 16:42	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		08/15/25 07:13	08/15/25 16:42	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		08/15/25 07:13	08/15/25 16:42	1

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QC Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: MBL 380-168677/19-A

Matrix: Water

Analysis Batch: 168792

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 168677

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		08/15/25 07:13	08/15/25 16:42	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		08/15/25 07:13	08/15/25 16:42	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	0.48		2.0	ng/L		08/15/25 07:13	08/15/25 16:42	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		08/15/25 07:13	08/15/25 16:42	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<0.25		2.0	ng/L		08/15/25 07:13	08/15/25 16:42	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		08/15/25 07:13	08/15/25 16:42	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		08/15/25 07:13	08/15/25 16:42	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		08/15/25 07:13	08/15/25 16:42	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		08/15/25 07:13	08/15/25 16:42	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		08/15/25 07:13	08/15/25 16:42	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	56		50 - 200	08/15/25 07:13	08/15/25 16:42	1
13C6 PFDA	88		50 - 200	08/15/25 07:13	08/15/25 16:42	1
13C5 PFHxA	86		50 - 200	08/15/25 07:13	08/15/25 16:42	1
13C4 PFHpA	87		50 - 200	08/15/25 07:13	08/15/25 16:42	1
13C8 PFOA	86		50 - 200	08/15/25 07:13	08/15/25 16:42	1
13C9 PFNA	85		50 - 200	08/15/25 07:13	08/15/25 16:42	1
13C7 PFUnA	91		50 - 200	08/15/25 07:13	08/15/25 16:42	1
13C2 PFDoA	90		50 - 200	08/15/25 07:13	08/15/25 16:42	1
13C4 PFBA	84		50 - 200	08/15/25 07:13	08/15/25 16:42	1
13C5 PFPeA	81		50 - 200	08/15/25 07:13	08/15/25 16:42	1
13C3 PFBS	103		50 - 200	08/15/25 07:13	08/15/25 16:42	1
13C3 PFHxS	105		50 - 200	08/15/25 07:13	08/15/25 16:42	1
13C8 PFOS	101		50 - 200	08/15/25 07:13	08/15/25 16:42	1
13C2-4:2-FTS	117		50 - 200	08/15/25 07:13	08/15/25 16:42	1
13C2-6:2-FTS	107		50 - 200	08/15/25 07:13	08/15/25 16:42	1
13C2-8:2-FTS	102		50 - 200	08/15/25 07:13	08/15/25 16:42	1

Lab Sample ID: LCS 380-168677/21-A

Matrix: Water

Analysis Batch: 168792

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 168677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	121	123		ng/L		102	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	121	124		ng/L		102	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	121	124		ng/L		103	70 - 130

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QC Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: LCS 380-168677/21-A

Matrix: Water

Analysis Batch: 168792

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 168677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	121	123		ng/L		102	70 - 130
Dimer Acid (HFPO-DA/GenX)							
Perfluorobutanesulfonic acid (PFBS)	121	126		ng/L		104	70 - 130
Perfluorodecanoic acid (PFDA)	121	124		ng/L		103	70 - 130
Perfluorododecanoic acid (PFDoA)	121	129		ng/L		107	70 - 130
Perfluoroheptanoic acid (PFHpA)	121	124		ng/L		103	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	121	123		ng/L		102	70 - 130
Perfluorohexanoic acid (PFHxA)	121	128		ng/L		106	70 - 130
Perfluorononanoic acid (PFNA)	121	129		ng/L		106	70 - 130
Perfluorooctanesulfonic acid (PFOS)	121	128		ng/L		106	70 - 130
Perfluorooctanoic acid (PFOA)	121	127		ng/L		105	70 - 130
Perfluoroundecanoic acid (PFUnA)	121	119		ng/L		99	70 - 130
Perfluorobutanoic acid (PFBA)	121	119		ng/L		99	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	121	126		ng/L		104	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	121	133		ng/L		110	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	121	130		ng/L		107	70 - 130
Nonafluoro-3,6-dioxahexanoic acid (NFDHA)	121	120		ng/L		99	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	121	121		ng/L		100	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	121	123		ng/L		102	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	121	128		ng/L		106	70 - 130
Perfluoropentanoic acid (PFPeA)	121	128		ng/L		106	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	121	125		ng/L		104	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	121	128		ng/L		106	70 - 130

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C3 HFPO-DA	76		50 - 200
13C6 PFDA	90		50 - 200
13C5 PFHxA	88		50 - 200
13C4 PFHpA	87		50 - 200
13C8 PFOA	87		50 - 200
13C9 PFNA	88		50 - 200
13C7 PFUnA	93		50 - 200
13C2 PFDoA	94		50 - 200
13C4 PFBA	90		50 - 200
13C5 PFPeA	89		50 - 200
13C3 PFBS	101		50 - 200
13C3 PFHxS	101		50 - 200

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QC Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: LCS 380-168677/21-A

Matrix: Water

Analysis Batch: 168792

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 168677

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C8 PFOS	100		50 - 200
13C2-4:2-FTS	110		50 - 200
13C2-6:2-FTS	106		50 - 200
13C2-8:2-FTS	105		50 - 200

Lab Sample ID: MRL 380-168677/20-A

Matrix: Water

Analysis Batch: 168792

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 168677

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	2.12	J	ng/L		106	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	2.01	1.91	J	ng/L		95	50 - 150
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	2.01	2.04	J	ng/L		102	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.06	J	ng/L		102	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.20	J	ng/L		110	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.15	J	ng/L		107	50 - 150
Perfluorododecanoic acid (PFDaA)	2.01	2.17	J	ng/L		108	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.17	J	ng/L		108	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.13	J	ng/L		106	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.22	J	ng/L		111	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.28	J	ng/L		114	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.31	J	ng/L		115	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.22	J	ng/L		111	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.21	J	ng/L		110	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	2.15	J	ng/L		107	50 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	2.29	J	ng/L		114	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	2.27	J	ng/L		113	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	2.21	J	ng/L		110	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	2.02	J	ng/L		100	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.01	1.95	J	ng/L		97	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	2.16	J	ng/L		108	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	2.08	J	ng/L		103	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	2.31	J	ng/L		115	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: MRL 380-168677/20-A

Matrix: Water

Analysis Batch: 168792

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 168677

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanesulfonic acid (PFHpS)	2.01	2.24	J	ng/L		112	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	2.16	J	ng/L		107	50 - 150
Isotope Dilution	MRL %Recovery	MRL Qualifier	Limits				
13C3 HFPO-DA	68		50 - 200				
13C6 PFDA	92		50 - 200				
13C5 PFHxA	90		50 - 200				
13C4 PFHpA	92		50 - 200				
13C8 PFOA	95		50 - 200				
13C9 PFNA	91		50 - 200				
13C7 PFUnA	91		50 - 200				
13C2 PFDoA	93		50 - 200				
13C4 PFBA	92		50 - 200				
13C5 PFPeA	90		50 - 200				
13C3 PFBS	99		50 - 200				
13C3 PFHxS	102		50 - 200				
13C8 PFOS	100		50 - 200				
13C2-4:2-FTS	118		50 - 200				
13C2-6:2-FTS	106		50 - 200				
13C2-8:2-FTS	103		50 - 200				

Lab Sample ID: 380-166126-B-13-A MS

Matrix: Water

Analysis Batch: 168792

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 168677

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		121	120		ng/L		100	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		121	119		ng/L		99	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		121	126		ng/L		104	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		121	119		ng/L		98	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		121	122		ng/L		101	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		121	120		ng/L		99	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		121	121		ng/L		100	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		121	124		ng/L		102	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		121	120		ng/L		100	70 - 130
Perfluorohexanoic acid (PFHxA)	6.9		121	127		ng/L		99	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		121	122		ng/L		101	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		121	124		ng/L		103	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		121	121		ng/L		100	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-166126-B-13-A MS

Matrix: Water

Analysis Batch: 168792

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 168677

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	<2.0		121	120		ng/L		100	70 - 130
Perfluorobutanoic acid (PFBA)	6.9		121	124		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		121	116		ng/L		96	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		121	122		ng/L		101	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		121	125		ng/L		103	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		121	127		ng/L		105	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		121	119		ng/L		98	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		121	128		ng/L		106	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		121	126		ng/L		104	70 - 130
Perfluoropentanoic acid (PFPeA)	16		121	137		ng/L		100	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		121	123		ng/L		102	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		121	121		ng/L		101	70 - 130

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C3 HFPO-DA	104		50 - 200
13C6 PFDA	104		50 - 200
13C5 PFHxA	104		50 - 200
13C4 PFHpA	99		50 - 200
13C8 PFOA	103		50 - 200
13C9 PFNA	103		50 - 200
13C7 PFUnA	104		50 - 200
13C2 PFDoA	104		50 - 200
13C4 PFBA	105		50 - 200
13C5 PFPeA	119		50 - 200
13C3 PFBS	99		50 - 200
13C3 PFHxS	101		50 - 200
13C8 PFOS	99		50 - 200
13C2-4:2-FTS	113		50 - 200
13C2-6:2-FTS	106		50 - 200
13C2-8:2-FTS	103		50 - 200

Lab Sample ID: 380-166126-C-13-A MSD

Matrix: Water

Analysis Batch: 168792

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 168677

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 (11CI-PF3OUdS)	<2.0		121	124		ng/L		103	70 - 130	3	30

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QC Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-166126-C-13-A MSD

Matrix: Water

Analysis Batch: 168792

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 168677

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid(9Cl-PF3ONS)	<2.0		121	129		ng/L		107	70 - 130	8	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		121	121		ng/L		100	70 - 130	4	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		121	121		ng/L		100	70 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		121	121		ng/L		100	70 - 130	1	30
Perfluorodecanoic acid (PFDA)	<2.0		121	121		ng/L		100	70 - 130	1	30
Perfluorododecanoic acid (PFDoA)	<2.0		121	122		ng/L		101	70 - 130	1	30
Perfluoroheptanoic acid (PFHpA)	<2.0		121	122		ng/L		100	70 - 130	2	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		121	124		ng/L		102	70 - 130	3	30
Perfluorohexanoic acid (PFHxA)	6.9		121	129		ng/L		101	70 - 130	2	30
Perfluorononanoic acid (PFNA)	<2.0		121	127		ng/L		105	70 - 130	4	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		121	127		ng/L		105	70 - 130	2	30
Perfluorooctanoic acid (PFOA)	<2.0		121	121		ng/L		99	70 - 130	0	30
Perfluoroundecanoic acid (PFUnA)	<2.0		121	122		ng/L		101	70 - 130	2	30
Perfluorobutanoic acid (PFBA)	6.9		121	127		ng/L		100	70 - 130	3	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		121	127		ng/L		105	70 - 130	10	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		121	123		ng/L		102	70 - 130	1	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		121	121		ng/L		100	70 - 130	3	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		121	130		ng/L		108	70 - 130	2	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		121	119		ng/L		99	70 - 130	1	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		121	127		ng/L		105	70 - 130	1	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		121	128		ng/L		106	70 - 130	2	30
Perfluoropentanoic acid (PFPeA)	16		121	132		ng/L		96	70 - 130	3	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		121	123		ng/L		102	70 - 130	0	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		121	127		ng/L		105	70 - 130	4	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C3 HFPO-DA	106		50 - 200
13C6 PFDA	104		50 - 200
13C5 PFHxA	104		50 - 200
13C4 PFHpA	102		50 - 200
13C8 PFOA	105		50 - 200
13C9 PFNA	103		50 - 200
13C7 PFUnA	103		50 - 200
13C2 PFDoA	107		50 - 200

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QC Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-166126-C-13-A MSD

Matrix: Water

Analysis Batch: 168792

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 168677

Isotope Dilution	MSD MSD		Limits
	%Recovery	Qualifier	
13C4 PFBA	104		50 - 200
13C5 PFPeA	118		50 - 200
13C3 PFBS	102		50 - 200
13C3 PFHxS	99		50 - 200
13C8 PFOS	98		50 - 200
13C2-4:2-FTS	115		50 - 200
13C2-6:2-FTS	109		50 - 200
13C2-8:2-FTS	105		50 - 200

Lab Sample ID: MBL 380-168753/20-A

Matrix: Water

Analysis Batch: 168853

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 168753

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		08/15/25 14:52	08/16/25 11:14	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		08/15/25 14:52	08/16/25 11:14	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		08/15/25 14:52	08/16/25 11:14	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		08/15/25 14:52	08/16/25 11:14	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		08/15/25 14:52	08/16/25 11:14	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		08/15/25 14:52	08/16/25 11:14	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		08/15/25 14:52	08/16/25 11:14	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		08/15/25 14:52	08/16/25 11:14	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		08/15/25 14:52	08/16/25 11:14	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		08/15/25 14:52	08/16/25 11:14	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		08/15/25 14:52	08/16/25 11:14	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		08/15/25 14:52	08/16/25 11:14	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		08/15/25 14:52	08/16/25 11:14	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		08/15/25 14:52	08/16/25 11:14	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		08/15/25 14:52	08/16/25 11:14	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		08/15/25 14:52	08/16/25 11:14	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		08/15/25 14:52	08/16/25 11:14	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		08/15/25 14:52	08/16/25 11:14	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		08/15/25 14:52	08/16/25 11:14	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		08/15/25 14:52	08/16/25 11:14	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		08/15/25 14:52	08/16/25 11:14	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		08/15/25 14:52	08/16/25 11:14	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		08/15/25 14:52	08/16/25 11:14	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		08/15/25 14:52	08/16/25 11:14	1

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QC Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: MBL 380-168753/20-A

Matrix: Water

Analysis Batch: 168853

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 168753

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		08/15/25 14:52	08/16/25 11:14	1
Isotope Dilution	%Recovery	MBL Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	80		50 - 200			08/15/25 14:52	08/16/25 11:14	1
13C6 PFDA	97		50 - 200			08/15/25 14:52	08/16/25 11:14	1
13C5 PFHxA	92		50 - 200			08/15/25 14:52	08/16/25 11:14	1
13C4 PFHpA	96		50 - 200			08/15/25 14:52	08/16/25 11:14	1
13C8 PFOA	97		50 - 200			08/15/25 14:52	08/16/25 11:14	1
13C9 PFNA	97		50 - 200			08/15/25 14:52	08/16/25 11:14	1
13C7 PFUnA	98		50 - 200			08/15/25 14:52	08/16/25 11:14	1
13C2 PFDoA	103		50 - 200			08/15/25 14:52	08/16/25 11:14	1
13C4 PFBA	100		50 - 200			08/15/25 14:52	08/16/25 11:14	1
13C5 PFPeA	94		50 - 200			08/15/25 14:52	08/16/25 11:14	1
13C3 PFBS	99		50 - 200			08/15/25 14:52	08/16/25 11:14	1
13C3 PFHxS	100		50 - 200			08/15/25 14:52	08/16/25 11:14	1
13C8 PFOS	107		50 - 200			08/15/25 14:52	08/16/25 11:14	1
13C2-4:2-FTS	101		50 - 200			08/15/25 14:52	08/16/25 11:14	1
13C2-6:2-FTS	101		50 - 200			08/15/25 14:52	08/16/25 11:14	1
13C2-8:2-FTS	99		50 - 200			08/15/25 14:52	08/16/25 11:14	1

Lab Sample ID: LCS 380-168753/22-A

Matrix: Water

Analysis Batch: 168853

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 168753

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	120	118		ng/L		98	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	120	115		ng/L		95	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	120	117		ng/L		97	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	120	116		ng/L		96	70 - 130
Perfluorobutanesulfonic acid (PFBS)	120	125		ng/L		104	70 - 130
Perfluorodecanoic acid (PFDA)	120	119		ng/L		99	70 - 130
Perfluorododecanoic acid (PFDoA)	120	121		ng/L		100	70 - 130
Perfluoroheptanoic acid (PFHpA)	120	118		ng/L		98	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	120	128		ng/L		106	70 - 130
Perfluorohexanoic acid (PFHxA)	120	118		ng/L		98	70 - 130
Perfluorononanoic acid (PFNA)	120	125		ng/L		104	70 - 130
Perfluorooctanesulfonic acid (PFOS)	120	122		ng/L		101	70 - 130
Perfluorooctanoic acid (PFOA)	120	122		ng/L		101	70 - 130
Perfluoroundecanoic acid (PFUnA)	120	121		ng/L		100	70 - 130

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QC Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: LCS 380-168753/22-A

Matrix: Water

Analysis Batch: 168853

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 168753

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanoic acid (PFBA)	120	118		ng/L		98	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	120	118		ng/L		98	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	120	118		ng/L		98	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	120	122		ng/L		101	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	120	122		ng/L		101	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	120	119		ng/L		99	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	120	117		ng/L		97	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	120	125		ng/L		104	70 - 130
Perfluoropentanoic acid (PFPeA)	120	129		ng/L		107	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	120	117		ng/L		97	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	120	125		ng/L		104	70 - 130

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C3 HFPO-DA	85		50 - 200
13C6 PFDA	96		50 - 200
13C5 PFHxA	91		50 - 200
13C4 PFHpA	90		50 - 200
13C8 PFOA	92		50 - 200
13C9 PFNA	94		50 - 200
13C7 PFUnA	97		50 - 200
13C2 PFDoA	99		50 - 200
13C4 PFBA	97		50 - 200
13C5 PFPeA	89		50 - 200
13C3 PFBS	98		50 - 200
13C3 PFHxS	95		50 - 200
13C8 PFOS	103		50 - 200
13C2-4:2-FTS	104		50 - 200
13C2-6:2-FTS	101		50 - 200
13C2-8:2-FTS	103		50 - 200

Lab Sample ID: MRL 380-168753/21-A

Matrix: Water

Analysis Batch: 168853

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 168753

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS)	2.01	1.91	J	ng/L		95	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9CI-PF3ONS)	2.01	1.65	J	ng/L		82	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: MRL 380-168753/21-A

Matrix: Water

Analysis Batch: 168853

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 168753

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	1.80	J	ng/L		90	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	1.83	J	ng/L		91	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	1.94	J	ng/L		97	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	1.96	J	ng/L		98	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	1.99	J	ng/L		99	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	1.94	J	ng/L		97	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.12	J	ng/L		106	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	1.84	J	ng/L		92	50 - 150
Perfluorononanoic acid (PFNA)	2.01	1.93	J	ng/L		96	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.11	J	ng/L		105	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	1.74	J	ng/L		87	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.03	J	ng/L		101	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	2.00	J	ng/L		100	50 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	1.95	J	ng/L		97	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	2.06	J	ng/L		103	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	2.13	J	ng/L		106	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	1.94	J	ng/L		97	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	2.01	1.76	J	ng/L		87	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	1.86	J	ng/L		93	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	1.73	J	ng/L		86	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	2.08	J	ng/L		103	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.01	1.97	J	ng/L		98	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	1.91	J	ng/L		95	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	Limits
13C3 HFPO-DA	75		50 - 200
13C6 PFDA	89		50 - 200
13C5 PFHxA	88		50 - 200
13C4 PFHpA	91		50 - 200
13C8 PFOA	92		50 - 200
13C9 PFNA	91		50 - 200
13C7 PFUnA	86		50 - 200
13C2 PFDoA	91		50 - 200
13C4 PFBA	92		50 - 200
13C5 PFPeA	86		50 - 200
13C3 PFBS	108		50 - 200

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: MRL 380-168753/21-A

Matrix: Water

Analysis Batch: 168853

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 168753

Isotope Dilution	MRL %Recovery	MRL Qualifier	Limits
13C3 PFHxS	104		50 - 200
13C8 PFOS	111		50 - 200
13C2-4:2-FTS	111		50 - 200
13C2-6:2-FTS	105		50 - 200
13C2-8:2-FTS	112		50 - 200

Lab Sample ID: 380-165863-B-1-A MS

Matrix: Water

Analysis Batch: 168853

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 168753

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		60.4	61.4		ng/L		102	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		60.4	55.8		ng/L		93	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.4	63.2		ng/L		105	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.4	60.4		ng/L		100	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.4	63.9		ng/L		106	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.4	60.4		ng/L		100	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.4	62.7		ng/L		104	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.4	62.8		ng/L		104	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.4	65.6		ng/L		109	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		60.4	62.3		ng/L		103	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.4	65.5		ng/L		109	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.4	62.1		ng/L		103	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.4	60.4		ng/L		100	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.4	60.9		ng/L		101	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.4	60.5		ng/L		100	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.4	64.7		ng/L		107	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.4	61.7		ng/L		102	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.4	65.5		ng/L		108	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.4	61.4		ng/L		102	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<2.0		60.4	60.6		ng/L		100	70 - 130
Perfluoro 3 methoxypropanoic acid (PFMPA)	<2.0		60.4	61.7		ng/L		102	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.4	60.6		ng/L		100	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		60.4	61.7		ng/L		102	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-165863-B-1-A MS

Matrix: Water

Analysis Batch: 168853

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 168753

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.4	61.8		ng/L		102	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.4	63.9		ng/L		106	70 - 130
Isotope Dilution	MS %Recovery	MS Qualifier	Limits						
13C3 HFPO-DA	100		50 - 200						
13C6 PFDA	107		50 - 200						
13C5 PFHxA	106		50 - 200						
13C4 PFHpA	106		50 - 200						
13C8 PFOA	107		50 - 200						
13C9 PFNA	104		50 - 200						
13C7 PFUnA	105		50 - 200						
13C2 PFDoA	107		50 - 200						
13C4 PFBA	104		50 - 200						
13C5 PFPeA	107		50 - 200						
13C3 PFBS	108		50 - 200						
13C3 PFHxS	105		50 - 200						
13C8 PFOS	111		50 - 200						
13C2-4:2-FTS	114		50 - 200						
13C2-6:2-FTS	107		50 - 200						
13C2-8:2-FTS	108		50 - 200						

Lab Sample ID: 380-165863-C-1-A MSD

Matrix: Water

Analysis Batch: 168853

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 168753

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		60.4	58.1		ng/L		96	70 - 130	5	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		60.4	54.4		ng/L		90	70 - 130	3	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.4	62.8		ng/L		104	70 - 130	1	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.4	60.0		ng/L		99	70 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.4	63.0		ng/L		104	70 - 130	1	30
Perfluorodecanoic acid (PFDA)	<2.0		60.4	62.6		ng/L		104	70 - 130	4	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.4	61.6		ng/L		102	70 - 130	2	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.4	61.5		ng/L		102	70 - 130	2	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.4	63.5		ng/L		105	70 - 130	3	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.4	61.6		ng/L		102	70 - 130	1	30
Perfluorononanoic acid (PFNA)	<2.0		60.4	63.6		ng/L		105	70 - 130	3	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.4	60.0		ng/L		99	70 - 130	4	30
Perfluorooctanoic acid (PFOA)	<2.0		60.4	59.8		ng/L		99	70 - 130	1	30

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-165863-C-1-A MSD

Matrix: Water

Analysis Batch: 168853

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 168753

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluoroundecanoic acid (PFUnA)	<2.0		60.4	62.1		ng/L		103	70 - 130	2	30
Perfluorobutanoic acid (PFBA)	<2.0		60.4	60.2		ng/L		100	70 - 130	0	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.4	65.5		ng/L		109	70 - 130	1	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.4	60.6		ng/L		100	70 - 130	2	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.4	62.6		ng/L		104	70 - 130	4	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.4	61.6		ng/L		102	70 - 130	0	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		60.4	58.7		ng/L		97	70 - 130	3	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.4	61.8		ng/L		102	70 - 130	0	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.4	62.7		ng/L		104	70 - 130	3	30
Perfluoropentanoic acid (PFPeA)	<2.0		60.4	65.1		ng/L		108	70 - 130	5	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.4	60.4		ng/L		100	70 - 130	2	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.4	65.2		ng/L		108	70 - 130	2	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C3 HFPO-DA	95		50 - 200
13C6 PFDA	105		50 - 200
13C5 PFHxA	103		50 - 200
13C4 PFHpA	104		50 - 200
13C8 PFOA	106		50 - 200
13C9 PFNA	104		50 - 200
13C7 PFUnA	102		50 - 200
13C2 PFDoA	107		50 - 200
13C4 PFBA	105		50 - 200
13C5 PFPeA	105		50 - 200
13C3 PFBS	101		50 - 200
13C3 PFHxS	101		50 - 200
13C8 PFOS	108		50 - 200
13C2-4:2-FTS	107		50 - 200
13C2-6:2-FTS	104		50 - 200
13C2-8:2-FTS	101		50 - 200

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

Lab Sample ID: MBL 380-168419/20-A

Matrix: Water

Analysis Batch: 168528

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 168419

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		08/14/25 03:35	08/14/25 21:59	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		08/14/25 03:35	08/14/25 21:59	1

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QC Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: MBL 380-168419/20-A

Matrix: Water

Analysis Batch: 168528

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 168419

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		08/14/25 03:35	08/14/25 21:59	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		08/14/25 03:35	08/14/25 21:59	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		08/14/25 03:35	08/14/25 21:59	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		08/14/25 03:35	08/14/25 21:59	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		08/14/25 03:35	08/14/25 21:59	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		08/14/25 03:35	08/14/25 21:59	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		08/14/25 03:35	08/14/25 21:59	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		08/14/25 03:35	08/14/25 21:59	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		08/14/25 03:35	08/14/25 21:59	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		08/14/25 03:35	08/14/25 21:59	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		08/14/25 03:35	08/14/25 21:59	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		08/14/25 03:35	08/14/25 21:59	1
Perfluorotridecanoic acid (PFTrDA)	<0.36		2.0	ng/L		08/14/25 03:35	08/14/25 21:59	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<0.30		2.0	ng/L		08/14/25 03:35	08/14/25 21:59	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		08/14/25 03:35	08/14/25 21:59	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		08/14/25 03:35	08/14/25 21:59	1
Surrogate	MBL %Recovery	MBL Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	103		70 - 130			08/14/25 03:35	08/14/25 21:59	1
13C2 PFHxA	104		70 - 130			08/14/25 03:35	08/14/25 21:59	1
13C2 PFDA	108		70 - 130			08/14/25 03:35	08/14/25 21:59	1
13C3-GenX	106		70 - 130			08/14/25 03:35	08/14/25 21:59	1

Lab Sample ID: LCS 380-168419/22-A

Matrix: Water

Analysis Batch: 168528

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 168419

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	50.0	48.1		ng/L		96	70 - 130
Perfluorooctanesulfonic acid (PFOS)	50.0	50.5		ng/L		101	70 - 130
Perfluoroundecanoic acid (PFUnA)	50.0	52.2		ng/L		104	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	50.0	48.6		ng/L		97	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	50.0	48.9		ng/L		98	70 - 130
Perfluorohexanoic acid (PFHxA)	50.0	47.4		ng/L		95	70 - 130
Perfluorododecanoic acid (PFDoA)	50.0	50.2		ng/L		100	70 - 130
Perfluorooctanoic acid (PFOA)	50.0	50.0		ng/L		100	70 - 130
Perfluorodecanoic acid (PFDA)	50.0	50.5		ng/L		101	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	50.0	51.4		ng/L		103	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: LCS 380-168419/22-A

Matrix: Water

Analysis Batch: 168528

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 168419

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorobutanesulfonic acid (PFBS)	50.0	49.7		ng/L		99	70 - 130
Perfluoroheptanoic acid (PFHpA)	50.0	47.3		ng/L		95	70 - 130
Perfluorononanoic acid (PFNA)	50.0	51.1		ng/L		102	70 - 130
Perfluorotetradecanoic acid (PFTA)	50.0	47.1		ng/L		94	70 - 130
Perfluorotridecanoic acid (PFTrDA)	50.0	53.7		ng/L		107	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	50.0	50.8		ng/L		102	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	50.0	52.0		ng/L		104	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	50.0	47.7		ng/L		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
d5-NEtFOSAA	99		70 - 130
13C2 PFHxA	94		70 - 130
13C2 PFDA	103		70 - 130
13C3-GenX	94		70 - 130

Lab Sample ID: MRL 380-168419/21-A

Matrix: Water

Analysis Batch: 168528

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 168419

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	2.30	J	ng/L		115	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.16	J	ng/L		108	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.33	J	ng/L		116	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	2.31	J	ng/L		115	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	2.26	J	ng/L		113	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	2.35	J	ng/L		117	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.30	J	ng/L		115	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.39	J	ng/L		119	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.30	J	ng/L		115	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.27	J	ng/L		113	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.17	J	ng/L		109	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.30	J	ng/L		115	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.40	J	ng/L		120	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.00	1.93	J	ng/L		96	50 - 150

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: MRL 380-168419/21-A

Matrix: Water

Analysis Batch: 168528

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 168419

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorotridecanoic acid (PFTTrDA)	2.00	2.53	J	ng/L		126	50 - 150
9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid(9Cl-PF3ONS)	2.00	2.25	J	ng/L		112	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	2.29	J	ng/L		114	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	2.32	J	ng/L		116	50 - 150
Surrogate	MRL %Recovery	MRL Qualifier	Limits				
d5-NEtFOSAA	97		70 - 130				
13C2 PFHxA	97		70 - 130				
13C2 PFDA	102		70 - 130				
13C3-GenX	97		70 - 130				

Lab Sample ID: 380-165915-B-1-A MS

Matrix: Water

Analysis Batch: 168528

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 168419

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		50.2	49.4		ng/L		98	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		50.2	50.0		ng/L		100	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		50.2	51.2		ng/L		102	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		50.2	48.4		ng/L		96	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		50.2	49.4		ng/L		98	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		50.2	50.2		ng/L		100	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		50.2	51.3		ng/L		102	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		50.2	50.1		ng/L		100	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		50.2	51.9		ng/L		103	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		50.2	50.2		ng/L		100	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		50.2	49.7		ng/L		99	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		50.2	50.4		ng/L		100	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		50.2	52.0		ng/L		104	70 - 130
Perfluorotetradecanoic acid (PFTA)	<2.0		50.2	42.9		ng/L		86	70 - 130
Perfluorotridecanoic acid (PFTTrDA)	<2.0		50.2	53.4		ng/L		106	70 - 130
9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid(9Cl-PF3ONS)	<2.0		50.2	49.7		ng/L		99	70 - 130

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-165915-B-1-A MS

Matrix: Water

Analysis Batch: 168528

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 168419

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		50.2	51.7		ng/L		103	70 - 130		
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		50.2	49.7		ng/L		99	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
d5-NEtFOSAA	101		70 - 130								
13C2 PFHxA	98		70 - 130								
13C2 PFDA	109		70 - 130								
13C3-GenX	101		70 - 130								

Lab Sample ID: 380-165915-C-1-A MSD

Matrix: Water

Analysis Batch: 168528

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 168419

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		50.2	50.2		ng/L		100	70 - 130	2	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		50.2	50.8		ng/L		101	70 - 130	2	30
Perfluoroundecanoic acid (PFUnA)	<2.0		50.2	52.6		ng/L		105	70 - 130	3	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		50.2	48.1		ng/L		96	70 - 130	1	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		50.2	49.4		ng/L		98	70 - 130	0	30
Perfluorohexanoic acid (PFHxA)	<2.0		50.2	50.6		ng/L		101	70 - 130	1	30
Perfluorododecanoic acid (PFDaA)	<2.0		50.2	51.3		ng/L		102	70 - 130	0	30
Perfluorooctanoic acid (PFOA)	<2.0		50.2	51.2		ng/L		102	70 - 130	2	30
Perfluorodecanoic acid (PFDA)	<2.0		50.2	51.2		ng/L		102	70 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		50.2	50.9		ng/L		101	70 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		50.2	50.9		ng/L		101	70 - 130	2	30
Perfluoroheptanoic acid (PFHpA)	<2.0		50.2	50.4		ng/L		100	70 - 130	0	30
Perfluorononanoic acid (PFNA)	<2.0		50.2	50.3		ng/L		100	70 - 130	3	30
Perfluorotetradecanoic acid (PFTA)	<2.0		50.2	43.3		ng/L		86	70 - 130	1	30
Perfluorotridecanoic acid (PFTTrDA)	<2.0		50.2	53.2		ng/L		106	70 - 130	0	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		50.2	52.2		ng/L		104	70 - 130	5	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		50.2	52.5		ng/L		105	70 - 130	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		50.2	49.0		ng/L		98	70 - 130	2	30

Eurofins Eaton Analytical Pomona

QC Sample Results

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-165915-C-1-A MSD

Matrix: Water

Analysis Batch: 168528

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 168419

Surrogate	MSD		Limits
	%Recovery	Qualifier	
d5-NEtFOSAA	98		70 - 130
13C2 PFHxA	99		70 - 130
13C2 PFDA	106		70 - 130
13C3 GenX	100		70 - 130

QC Association Summary

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

LCMS

Prep Batch: 168419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165919-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	537.1 DW	
380-165919-2	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	537.1 DW	
380-165919-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	537.1 DW	
380-165919-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	537.1 DW	
380-165919-5	AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	Total/NA	Drinking Water	537.1 DW	
380-165919-6	FB: MOANALUA WELLS (331-223-TP202)	Total/NA	Water	537.1 DW	
380-165919-7	FB: HALAWA WELLS UNITS 1 & 2 (331-206-TPC)	Total/NA	Water	537.1 DW	
380-165919-8	FB: AIEA GULCH WELLS PUMP 1 (331-201-TPC)	Total/NA	Water	537.1 DW	
380-165919-9	FB: AIEA GULCH WELLS PUMP 2 (331-202-TPC)	Total/NA	Water	537.1 DW	
380-165919-10	FB: AIEA WELLS PUMPS 1&2 (260) (331-203-TPC)	Total/NA	Water	537.1 DW	
MBL 380-168419/20-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-168419/22-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-168419/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-165915-B-1-A MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-165915-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Analysis Batch: 168528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165919-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	537.1	168419
380-165919-2	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	537.1	168419
380-165919-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	537.1	168419
380-165919-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	537.1	168419
380-165919-5	AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	Total/NA	Drinking Water	537.1	168419
380-165919-6	FB: MOANALUA WELLS (331-223-TP202)	Total/NA	Water	537.1	168419
380-165919-7	FB: HALAWA WELLS UNITS 1 & 2 (331-206-TPC)	Total/NA	Water	537.1	168419
380-165919-8	FB: AIEA GULCH WELLS PUMP 1 (331-201-TPC)	Total/NA	Water	537.1	168419
380-165919-9	FB: AIEA GULCH WELLS PUMP 2 (331-202-TPC)	Total/NA	Water	537.1	168419
380-165919-10	FB: AIEA WELLS PUMPS 1&2 (260) (331-203-TPC)	Total/NA	Water	537.1	168419
MBL 380-168419/20-A	Method Blank	Total/NA	Water	537.1	168419
LCS 380-168419/22-A	Lab Control Sample	Total/NA	Water	537.1	168419
MRL 380-168419/21-A	Lab Control Sample	Total/NA	Water	537.1	168419
380-165915-B-1-A MS	Matrix Spike	Total/NA	Water	537.1	168419
380-165915-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1	168419

Prep Batch: 168603

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165919-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	533	
MBL 380-168603/20-A	Method Blank	Total/NA	Water	533	
LCS 380-168603/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-168603/21-A	Lab Control Sample	Total/NA	Water	533	
380-165913-E-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	
380-165913-F-1-A MS	Matrix Spike	Total/NA	Water	533	

Prep Batch: 168677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165919-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	533	
380-165919-5	AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	Total/NA	Drinking Water	533	
380-165919-6	FB: MOANALUA WELLS (331-223-TP202)	Total/NA	Water	533	
380-165919-7	FB: HALAWA WELLS UNITS 1 & 2 (331-206-TPC)	Total/NA	Water	533	
380-165919-8	FB: AIEA GULCH WELLS PUMP 1 (331-201-TPC)	Total/NA	Water	533	

Eurofins Eaton Analytical Pomona

QC Association Summary

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

LCMS (Continued)

Prep Batch: 168677 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165919-9	FB: AIEA GULCH WELLS PUMP 2 (331-202-TPC	Total/NA	Water	533	
380-165919-10	FB: AIEA WELLS PUMPS 1&2 (260) (331-203-TF	Total/NA	Water	533	
MBL 380-168677/19-A	Method Blank	Total/NA	Water	533	
LCS 380-168677/21-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-168677/20-A	Lab Control Sample	Total/NA	Water	533	
380-166126-B-13-A MS	Matrix Spike	Total/NA	Water	533	
380-166126-C-13-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 168681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165919-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	533	168603
MBL 380-168603/20-A	Method Blank	Total/NA	Water	533	168603
LCS 380-168603/22-A	Lab Control Sample	Total/NA	Water	533	168603
MRL 380-168603/21-A	Lab Control Sample	Total/NA	Water	533	168603
380-165913-E-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	168603
380-165913-F-1-A MS	Matrix Spike	Total/NA	Water	533	168603

Prep Batch: 168753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165919-2	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	533	
380-165919-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	533	
MBL 380-168753/20-A	Method Blank	Total/NA	Water	533	
LCS 380-168753/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-168753/21-A	Lab Control Sample	Total/NA	Water	533	
380-165863-B-1-A MS	Matrix Spike	Total/NA	Water	533	
380-165863-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 168792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165919-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	533	168677
380-165919-5	AIEA WELLS PUMPS 1&2 (260) (331-203-TP40C	Total/NA	Drinking Water	533	168677
380-165919-6	FB: MOANALUA WELLS (331-223-TP202)	Total/NA	Water	533	168677
380-165919-7	FB: HALAWA WELLS UNITS 1 & 2 (331-206-TPC	Total/NA	Water	533	168677
380-165919-8	FB: AIEA GULCH WELLS PUMP 1 (331-201-TPC	Total/NA	Water	533	168677
380-165919-9	FB: AIEA GULCH WELLS PUMP 2 (331-202-TPC	Total/NA	Water	533	168677
380-165919-10	FB: AIEA WELLS PUMPS 1&2 (260) (331-203-TF	Total/NA	Water	533	168677
MBL 380-168677/19-A	Method Blank	Total/NA	Water	533	168677
LCS 380-168677/21-A	Lab Control Sample	Total/NA	Water	533	168677
MRL 380-168677/20-A	Lab Control Sample	Total/NA	Water	533	168677
380-166126-B-13-A MS	Matrix Spike	Total/NA	Water	533	168677
380-166126-C-13-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	168677

Analysis Batch: 168853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165919-2	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Total/NA	Drinking Water	533	168753
380-165919-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	533	168753
MBL 380-168753/20-A	Method Blank	Total/NA	Water	533	168753
LCS 380-168753/22-A	Lab Control Sample	Total/NA	Water	533	168753
MRL 380-168753/21-A	Lab Control Sample	Total/NA	Water	533	168753
380-165863-B-1-A MS	Matrix Spike	Total/NA	Water	533	168753

Eurofins Eaton Analytical Pomona

QC Association Summary

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

LCMS (Continued)

Analysis Batch: 168853 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-165863-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	168753

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

Lab Chronicle

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

Client Sample ID: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-165919-1

Date Collected: 08/11/25 09:56

Matrix: Drinking Water

Date Received: 08/13/25 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			168603	E2HD	EA POM	08/14/25 20:25
Total/NA	Analysis	533		1	168681	Y5FM	EA POM	08/15/25 14:18
Total/NA	Prep	537.1 DW			168419	G9MN	EA POM	08/14/25 03:35
Total/NA	Analysis	537.1		1	168528	SZ9R	EA POM	08/15/25 00:16

Client Sample ID: HALAWA WELLS UNITS 1 & 2

Lab Sample ID: 380-165919-2

(331-206-TP065)

Date Collected: 08/11/25 10:28

Matrix: Drinking Water

Date Received: 08/13/25 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			168753	N8NE	EA POM	08/15/25 14:52
Total/NA	Analysis	533		1	168853	Y5FM	EA POM	08/16/25 13:28
Total/NA	Prep	537.1 DW			168419	G9MN	EA POM	08/14/25 03:35
Total/NA	Analysis	537.1		1	168528	SZ9R	EA POM	08/15/25 00:37

Client Sample ID: AIEA GULCH WELLS PUMP 1

Lab Sample ID: 380-165919-3

(331-201-TP071)

Date Collected: 08/11/25 10:57

Matrix: Drinking Water

Date Received: 08/13/25 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			168753	N8NE	EA POM	08/15/25 14:52
Total/NA	Analysis	533		1	168853	Y5FM	EA POM	08/16/25 13:47
Total/NA	Prep	537.1 DW			168419	G9MN	EA POM	08/14/25 03:35
Total/NA	Analysis	537.1		1	168528	SZ9R	EA POM	08/15/25 00:48

Client Sample ID: AIEA GULCH WELLS PUMP 2

Lab Sample ID: 380-165919-4

(331-202-TP072)

Date Collected: 08/11/25 11:15

Matrix: Drinking Water

Date Received: 08/13/25 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			168677	XTD8	EA POM	08/15/25 07:13
Total/NA	Analysis	533		1	168792	Y5FM	EA POM	08/15/25 17:39
Total/NA	Prep	537.1 DW			168419	G9MN	EA POM	08/14/25 03:35
Total/NA	Analysis	537.1		1	168528	SZ9R	EA POM	08/15/25 00:58

Lab Chronicle

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-165919-5

Date Collected: 08/11/25 11:39
Date Received: 08/13/25 10:20

Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			168677	XTD8	EA POM	08/15/25 07:13
Total/NA	Analysis	533		1	168792	Y5FM	EA POM	08/15/25 17:48
Total/NA	Prep	537.1 DW			168419	G9MN	EA POM	08/14/25 03:35
Total/NA	Analysis	537.1		1	168528	SZ9R	EA POM	08/15/25 01:07

Client Sample ID: FB: MOANALUA WELLS (331-223-TP202)

Lab Sample ID: 380-165919-6

Date Collected: 08/11/25 09:56
Date Received: 08/13/25 10:20

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			168677	XTD8	EA POM	08/15/25 07:13
Total/NA	Analysis	533		1	168792	Y5FM	EA POM	08/15/25 17:58
Total/NA	Prep	537.1 DW			168419	G9MN	EA POM	08/14/25 03:35
Total/NA	Analysis	537.1		1	168528	SZ9R	EA POM	08/15/25 01:17

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

Lab Sample ID: 380-165919-7

Date Collected: 08/11/25 10:28
Date Received: 08/13/25 10:20

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			168677	XTD8	EA POM	08/15/25 07:13
Total/NA	Analysis	533		1	168792	Y5FM	EA POM	08/15/25 18:08
Total/NA	Prep	537.1 DW			168419	G9MN	EA POM	08/14/25 03:35
Total/NA	Analysis	537.1		1	168528	SZ9R	EA POM	08/15/25 01:27

Client Sample ID: FB: AIEA GULCH WELLS PUMP 1
(331-201-TP071)

Lab Sample ID: 380-165919-8

Date Collected: 08/11/25 10:57
Date Received: 08/13/25 10:20

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			168677	XTD8	EA POM	08/15/25 07:13
Total/NA	Analysis	533		1	168792	Y5FM	EA POM	08/15/25 18:17
Total/NA	Prep	537.1 DW			168419	G9MN	EA POM	08/14/25 03:35
Total/NA	Analysis	537.1		1	168528	SZ9R	EA POM	08/15/25 01:36

Lab Chronicle

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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

Lab Sample ID: 380-165919-9

Date Collected: 08/11/25 11:15

Matrix: Water

Date Received: 08/13/25 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			168677	XTD8	EA POM	08/15/25 07:13
Total/NA	Analysis	533		1	168792	Y5FM	EA POM	08/15/25 18:27
Total/NA	Prep	537.1 DW			168419	G9MN	EA POM	08/14/25 03:35
Total/NA	Analysis	537.1		1	168528	SZ9R	EA POM	08/15/25 01:46

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

Lab Sample ID: 380-165919-10

Date Collected: 08/11/25 11:39

Matrix: Water

Date Received: 08/13/25 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			168677	XTD8	EA POM	08/15/25 07:13
Total/NA	Analysis	533		1	168792	Y5FM	EA POM	08/15/25 18:36
Total/NA	Prep	537.1 DW			168419	G9MN	EA POM	08/14/25 03:35
Total/NA	Analysis	537.1		1	168528	SZ9R	EA POM	08/15/25 01:56

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: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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
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Method Summary

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

Job ID: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells
P1/P2, Aiea Wells Pump 1&2

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: 380-165919-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch
Wells P1/P2, Aiea Wells Pump 1&2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
380-165919-1	MOANALUA WELLS (331-223-TP202)	Drinking Water	08/11/25 09:56	08/13/25 10:20	HI0000331
380-165919-2	HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Drinking Water	08/11/25 10:28	08/13/25 10:20	HI0000331
380-165919-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Drinking Water	08/11/25 10:57	08/13/25 10:20	HI0000331
380-165919-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Drinking Water	08/11/25 11:15	08/13/25 10:20	HI0000331
380-165919-5	AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	Drinking Water	08/11/25 11:39	08/13/25 10:20	HI0000331
380-165919-6	FB: MOANALUA WELLS (331-223-TP202)	Water	08/11/25 09:56	08/13/25 10:20	HI0000331
380-165919-7	FB: HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Water	08/11/25 10:28	08/13/25 10:20	HI0000331
380-165919-8	FB: AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Water	08/11/25 10:57	08/13/25 10:20	HI0000331
380-165919-9	FB: AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Water	08/11/25 11:15	08/13/25 10:20	HI0000331
380-165919-10	FB: AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	Water	08/11/25 11:39	08/13/25 10:20	HI0000331

Monrovia, CA (Suite 100)

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

Chain of Custody Record



Client Information Client Contact: kirk iwamoto Phone: +1 808 748 5840 City & County of Honolulu Address: 630 South Beretania Street, Chemistry Lab City: Honolulu State, Zip: HI 96843 Phone: 808-748-5840 (tel) Email: kiwamoto@hbws.org Project Name: RED-HILL/HBWS sites Event Desc: RUSH Weekly Red Hill Site:		Sampler: bailey Lab Pw: Lopez, Maria E-Mail: Maria.Lopez@eurofinsus.com Carrier Tracking No(s): State of Origin: COC No: 380-27941-2757.2 Page: Page 2 of 2 Job #:	
Due Date Requested: TAT Requested (days): Compliance Project: Δ No PO #: C20525101 exp 05312023 WO #: 38001111 Project #: 38001111 SSOW#:		Analysis Requested 633 All Analytes 525.2 PREC (MOD) 525plus PLUS TICs 8015B_GRO_LL_CS HNL Ranges C10-C24/C24-C36/C8- 8015B_GRO_LL (MOD) GRO SUBCONTRACT 625 PAH Physis LL (EAL) + TICs Perform MS/MSD (Yes or No) Field Filtered Sample (Yes or No) 380-185919 COC	
Sample Identification Sample Name: Moanalua Wells P1 Sample Location: Halawa Wells Units 1&2 P1 Sample Type: Aiea Gulch Wells Pump 1 Sample Type: Aiea Gulch Wells Pump 2 Sample Type: Aiea Wells Pumps 1&2 (260) P2 Sample Type: FB Moanalua Wells Sample Type: FB Halawa Wells Units 1&2 Sample Type: FB Aiea Gulch Wells Pump 1 Sample Type: FB Aiea Gulch Wells Pump 2 Sample Type: FB Aiea Wells Pumps 1&2 (260)	Sample Date: 11-Aug-2025 Sample Date: 11-Aug-2025 Sample Date: 11-Aug-2025 Sample Date: 11-Aug-2025 Sample Date: 11-Aug-2025 Sample Date: 11-Aug-2025 Sample Date: 11-Aug-2025 Sample Date: 11-Aug-2025 Sample Date: 11-Aug-2025 Sample Date: 11-Aug-2025	Sample Time: 0956 Sample Time: 1028 Sample Time: 1057 Sample Time: 1115 Sample Time: 1139 Sample Time: 0956 Sample Time: 1028 Sample Time: 1057 Sample Time: 1115 Sample Time: 1139	Matrix (Water, Soil, Sediment, Air, etc.) Preservation Code: 537 1 DW, PREC 537 1 Full List 525.2 PREC (MOD) 525plus PLUS TICs 8015B_GRO_LL_CS HNL Ranges C10-C24/C24-C36/C8- 8015B_GRO_LL (MOD) GRO SUBCONTRACT 625 PAH Physis LL (EAL) + TICs Perform MS/MSD (Yes or No) Field Filtered Sample (Yes or No) 380-185919 COC
Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested I II III IV Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months Special Instructions/QC Requirements	
Empty Kit Relinquished by:		Method of Shipment: FedEx 8835 1566 1150 Date/Time: 08/13/25 10:20 Company: CEAP	
Relinquished by:		Date/Time:	
Custody Seals Intact: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks: 75/18 2.6-0.0-2.6 Date/Time: 08/13/25 10:20 Company: CEAP	

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-165919-1

SDG Number: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells P1/P2, Aiea Wells Pump 1&2

Login Number: 165919

List Source: Eurofins Eaton Analytical Pomona

List Number: 1

Creator: Segura, Ryan

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