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ANALYTICAL REPORT

PREPARED FOR

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Honolulu, Hawaii 96843

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JOB DESCRIPTION

RED-HILL

PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells P1/P2, Aiea Wells Pumps 1&2

JOB NUMBER

380-183575-1

Eurofins Eaton Analytical Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

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

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Table of Contents

Definitions/Glossary

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

Job ID: 380-183575-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells P1/P2, Aiea Wells Pumps 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

Job Narrative
380-183575-1

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 11/19/2025 9:50 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 2.7°C.

PFAS
EPA 537.1 and EPA 533 are two distinct methods for the analysis of PFAS in drinking water. The analyses are conducted on differing instrumentation, with calibrations, extraction solvents and sample preservatives being dissimilar among the two methods. Therefore it is probable and not unexpected to see the methods having slight variations in analytical results.HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065) (380-183575-2). (XWB4)

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

Detection Summary

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

Job ID: 380-183575-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells P1/P2, Aiea Wells Pumps 1&2

Client Sample ID: MOANALUA WELLS (331-223-TP202) — Lab Sample ID: 380-183575-1

No Detections.

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065) — Lab Sample ID: 380-183575-2

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	2.3		2.0		ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.2		2.0		ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.8		2.0		ng/L	1		537.1	Total/NA
Perfluorohexanoic acid (PFHxA)	2.0		2.0		ng/L	1		537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.7		2.0		ng/L	1		537.1	Total/NA

Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071) — Lab Sample ID: 380-183575-3

No Detections.

Client Sample ID: AIEA GULCH WELLS PUMP 2 (331-202-TP072) — Lab Sample ID: 380-183575-4

No Detections.

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400) — Lab Sample ID: 380-183575-5

No Detections.

Client Sample ID: FB MOANALUA WELLS (331-223-TP202) — Lab Sample ID: 380-183575-6

No Detections.

Client Sample ID: FB HALAWA WELLS UNITS 1 & 2 (331-206-TP065) — Lab Sample ID: 380-183575-7

No Detections.

Client Sample ID: FB AIEA GULCH WELLS PUMP 1 (331-201-TP071) — Lab Sample ID: 380-183575-8

No Detections.

Client Sample ID: FB AIEA GULCH WELLS PUMP 2 (331-202-TP072) — Lab Sample ID: 380-183575-9

No Detections.

Client Sample ID: FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP400) — Lab Sample ID: 380-183575-10

No Detections.

This Detection Summary does not include radiochemical test results.

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

Job ID: 380-183575-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells P1/P2, Aiea Wells Pumps 1&2

Client Sample ID: MOANALUA WELLS (331-223-TP202)
Date Collected: 11/17/25 09:57
Date Received: 11/19/25 09:50

Lab Sample ID: 380-183575-1
Matrix: Drinking Water

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		11/24/25 06:04	11/24/25 21:48	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:48	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:48	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:48	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:48	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:48	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:48	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:48	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:48	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:48	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:48	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:48	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:48	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:48	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:48	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:48	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:48	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:48	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:48	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:48	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:48	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:48	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:48	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:48	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:48	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*93*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:48*	*1*
13C6 PFDA	*100*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:48*	*1*
13C5 PFHxA	*105*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:48*	*1*
13C4 PFHpA	*122*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:48*	*1*
13C8 PFOA	*106*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:48*	*1*
13C9 PFNA	*104*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:48*	*1*
13C7 PFUnA	*97*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:48*	*1*
13C2 PFDoA	*96*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:48*	*1*
13C4 PFBA	*105*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:48*	*1*
13C5 PFPeA	*108*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:48*	*1*
13C3 PFBS	*108*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:48*	*1*
13C3 PFHxS	*108*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:48*	*1*

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

Lab Sample ID: 380-183575-1

Date Collected: 11/17/25 09:57
Matrix: Drinking Water
Date Received: 11/19/25 09:50

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

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C8 PFOS	*107*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:48*	*1*
13C2-4:2-FTS	*115*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:48*	*1*
13C2-6:2-FTS	*119*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:48*	*1*
13C2-8:2-FTS	*100*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:48*	*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		11/22/25 07:45	11/24/25 12:28	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		11/22/25 07:45	11/24/25 12:28	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		11/22/25 07:45	11/24/25 12:28	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		11/22/25 07:45	11/24/25 12:28	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		11/22/25 07:45	11/24/25 12:28	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		11/22/25 07:45	11/24/25 12:28	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		11/22/25 07:45	11/24/25 12:28	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		11/22/25 07:45	11/24/25 12:28	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		11/22/25 07:45	11/24/25 12:28	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		11/22/25 07:45	11/24/25 12:28	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		11/22/25 07:45	11/24/25 12:28	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		11/22/25 07:45	11/24/25 12:28	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		11/22/25 07:45	11/24/25 12:28	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		11/22/25 07:45	11/24/25 12:28	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		11/22/25 07:45	11/24/25 12:28	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/22/25 07:45	11/24/25 12:28	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		11/22/25 07:45	11/24/25 12:28	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/22/25 07:45	11/24/25 12:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d5-NEtFOSAA	*102*		*70 - 130*	*11/22/25 07:45*	*11/24/25 12:28*	*1*
13C2 PFHxA	*99*		*70 - 130*	*11/22/25 07:45*	*11/24/25 12:28*	*1*
13C2 PFDA	*107*		*70 - 130*	*11/22/25 07:45*	*11/24/25 12:28*	*1*
13C3-GenX	*98*		*70 - 130*	*11/22/25 07:45*	*11/24/25 12:28*	*1*

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)

Lab Sample ID: 380-183575-2

Date Collected: 11/17/25 10:23
Matrix: Drinking Water
Date Received: 11/19/25 09:50

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		11/24/25 06:04	11/24/25 21:58	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		11/24/25 06:04	11/24/25 21:58	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		11/24/25 06:04	11/24/25 21:58	1

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)
Date Collected: 11/17/25 10:23
Date Received: 11/19/25 09:50

Lab Sample ID: 380-183575-2
Matrix: Drinking Water

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		11/24/25 06:04	11/24/25 21:58	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:58	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:58	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:58	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:58	1
Perfluorohexanesulfonic acid (PFHxS)	**2.3**		2.0		ng/L		11/24/25 06:04	11/24/25 21:58	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:58	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:58	1
Perfluorooctanesulfonic acid (PFOS)	**2.2**		2.0		ng/L		11/24/25 06:04	11/24/25 21:58	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:58	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:58	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:58	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:58	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:58	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:58	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:58	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:58	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:58	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:58	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:58	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:58	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 21:58	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*102*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:58*	*1*
13C6 PFDA	*97*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:58*	*1*
13C5 PFHxA	*108*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:58*	*1*
13C4 PFHpA	*124*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:58*	*1*
13C8 PFOA	*108*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:58*	*1*
13C9 PFNA	*105*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:58*	*1*
13C7 PFUnA	*101*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:58*	*1*
13C2 PFDoA	*100*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:58*	*1*
13C4 PFBA	*100*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:58*	*1*
13C5 PFPeA	*102*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:58*	*1*
13C3 PFBS	*103*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:58*	*1*
13C3 PFHxS	*104*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:58*	*1*
13C8 PFOS	*102*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:58*	*1*
13C2-4:2-FTS	*111*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:58*	*1*
13C2-6:2-FTS	*99*		*50 - 200*	*11/24/25 06:04*	*11/24/25 21:58*	*1*

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)

Lab Sample ID: 380-183575-2

Date Collected: 11/17/25 10:23
Date Received: 11/19/25 09:50

Matrix: Drinking Water

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	101		50 - 200	11/24/25 06:04	11/24/25 21:58	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		11/22/25 07:45	11/24/25 12:38	1
Perfluorooctanesulfonic acid (PFOS)	**2.8**		2.0		ng/L		11/22/25 07:45	11/24/25 12:38	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:38	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:38	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:38	1
Perfluorohexanoic acid (PFHxA)	**2.0**		2.0		ng/L		11/22/25 07:45	11/24/25 12:38	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:38	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:38	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:38	1
Perfluorohexanesulfonic acid (PFHxS)	**2.7**		2.0		ng/L		11/22/25 07:45	11/24/25 12:38	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:38	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:38	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:38	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:38	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:38	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:38	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:38	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	103		70 - 130	11/22/25 07:45	11/24/25 12:38	1
13C2 PFHxA	103		70 - 130	11/22/25 07:45	11/24/25 12:38	1
13C2 PFDA	107		70 - 130	11/22/25 07:45	11/24/25 12:38	1
13C3-GenX	99		70 - 130	11/22/25 07:45	11/24/25 12:38	1

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

Lab Sample ID: 380-183575-3

Date Collected: 11/17/25 10:50
Date Received: 11/19/25 09:50

Matrix: Drinking Water

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		11/24/25 06:04	11/24/25 22:07	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:07	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:07	1

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

Job ID: 380-183575-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells P1/P2, Aiea Wells Pumps 1&2

Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071)
Date Collected: 11/17/25 10:50
Date Received: 11/19/25 09:50

Lab Sample ID: 380-183575-3
Matrix: Drinking Water

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		11/24/25 06:04	11/24/25 22:07	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:07	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:07	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:07	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:07	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:07	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:07	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:07	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:07	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:07	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:07	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:07	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:07	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:07	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:07	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:07	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:07	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:07	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:07	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:07	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:07	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:07	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*98*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:07*	*1*
13C6 PFDA	*98*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:07*	*1*
13C5 PFHxA	*108*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:07*	*1*
13C4 PFHpA	*132*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:07*	*1*
13C8 PFOA	*106*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:07*	*1*
13C9 PFNA	*94*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:07*	*1*
13C7 PFUnA	*96*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:07*	*1*
13C2 PFDoA	*95*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:07*	*1*
13C4 PFBA	*106*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:07*	*1*
13C5 PFPeA	*105*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:07*	*1*
13C3 PFBS	*108*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:07*	*1*
13C3 PFHxS	*106*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:07*	*1*
13C8 PFOS	*100*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:07*	*1*
13C2-4:2-FTS	*109*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:07*	*1*
13C2-6:2-FTS	*96*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:07*	*1*
13C2-8:2-FTS	*92*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:07*	*1*

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

Lab Sample ID: 380-183575-3

Date Collected: 11/17/25 10:50
Date Received: 11/19/25 09:50

Matrix: Drinking Water

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		11/22/25 07:45	11/24/25 12:47	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:47	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:47	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:47	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:47	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:47	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:47	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:47	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:47	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:47	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:47	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:47	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:47	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:47	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:47	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:47	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d5-NEtFOSAA	*102*		*70 - 130*	*11/22/25 07:45*	*11/24/25 12:47*	*1*
13C2 PFHxA	*100*		*70 - 130*	*11/22/25 07:45*	*11/24/25 12:47*	*1*
13C2 PFDA	*104*		*70 - 130*	*11/22/25 07:45*	*11/24/25 12:47*	*1*
13C3-GenX	*93*		*70 - 130*	*11/22/25 07:45*	*11/24/25 12:47*	*1*

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

Lab Sample ID: 380-183575-4

Date Collected: 11/17/25 11:09
Date Received: 11/19/25 09:50

Matrix: Drinking Water

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		11/24/25 06:04	11/24/25 22:17	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:17	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:17	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:17	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:17	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:17	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:17	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:17	1

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

Lab Sample ID: 380-183575-4

Date Collected: 11/17/25 11:09
Date Received: 11/19/25 09:50

Matrix: Drinking Water

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		11/24/25 06:04	11/24/25 22:17	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:17	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:17	1
Perfluorooctanesulfonic acid (PFOS)	2 0		2 0		ng/L		11/24/25 06 04	11/24/25 22 17	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:17	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:17	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:17	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:17	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:17	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:17	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:17	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:17	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:17	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:17	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:17	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:17	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:17	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*102*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:17*	*1*
13C6 PFDA	*91*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:17*	*1*
13C5 PFHxA	*117*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:17*	*1*
13C4 PFHpA	*129*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:17*	*1*
13C8 PFOA	*109*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:17*	*1*
13C9 PFNA	*94*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:17*	*1*
13C7 PFUnA	*91*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:17*	*1*
13C2 PFDoA	*94*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:17*	*1*
13C4 PFBA	*97*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:17*	*1*
13C5 PFPeA	*98*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:17*	*1*
13C3 PFBS	*108*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:17*	*1*
13C3 PFHxS	*101*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:17*	*1*
13C8 PFOS	*98*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:17*	*1*
13C2-4:2-FTS	*120*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:17*	*1*
13C2-6:2-FTS	*96*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:17*	*1*
13C2-8:2-FTS	*88*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:17*	*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		11/22/25 07:45	11/24/25 11:39	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 11:39	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 11:39	1

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

Lab Sample ID: 380-183575-4

Date Collected: 11/17/25 11:09
Date Received: 11/19/25 09:50

Matrix: Drinking Water

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		11/22/25 07:45	11/24/25 11:39	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 11:39	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 11:39	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 11:39	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 11:39	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 11:39	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 11:39	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 11:39	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 11:39	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 11:39	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 11:39	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 11:39	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 11:39	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 11:39	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 11:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d5-NEtFOSAA	*106*		*70 - 130*	*11/22/25 07:45*	*11/24/25 11:39*	*1*
13C2 PFHxA	*106*		*70 - 130*	*11/22/25 07:45*	*11/24/25 11:39*	*1*
13C2 PFDA	*111*		*70 - 130*	*11/22/25 07:45*	*11/24/25 11:39*	*1*
13C3-GenX	*96*		*70 - 130*	*11/22/25 07:45*	*11/24/25 11:39*	*1*

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)

Lab Sample ID: 380-183575-5

Date Collected: 11/17/25 11:30
Date Received: 11/19/25 09:50

Matrix: Drinking Water

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		11/24/25 06:04	11/24/25 22:27	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:27	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:27	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:27	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:27	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:27	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:27	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:27	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:27	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:27	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:27	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:27	1

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)

Lab Sample ID: 380-183575-5

Date Collected: 11/17/25 11:30
Date Received: 11/19/25 09:50

Matrix: Drinking Water

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		11/24/25 06:04	11/24/25 22:27	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:27	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:27	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:27	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:27	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:27	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:27	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:27	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:27	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:27	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:27	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:27	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:27	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*81*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:27*	*1*
13C6 PFDA	*82*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:27*	*1*
13C5 PFHxA	*90*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:27*	*1*
13C4 PFHpA	*101*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:27*	*1*
13C8 PFOA	*91*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:27*	*1*
13C9 PFNA	*80*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:27*	*1*
13C7 PFUnA	*86*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:27*	*1*
13C2 PFDoA	*91*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:27*	*1*
13C4 PFBA	*84*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:27*	*1*
13C5 PFPeA	*85*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:27*	*1*
13C3 PFBS	*113*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:27*	*1*
13C3 PFHxS	*109*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:27*	*1*
13C8 PFOS	*101*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:27*	*1*
13C2-4:2-FTS	*111*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:27*	*1*
13C2-6:2-FTS	*95*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:27*	*1*
13C2-8:2-FTS	*94*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:27*	*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		11/22/25 07:45	11/24/25 12:57	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:57	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:57	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:57	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:57	1

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)

Lab Sample ID: 380-183575-5

Date Collected: 11/17/25 11:30
Date Received: 11/19/25 09:50

Matrix: Drinking Water

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		11/22/25 07:45	11/24/25 12:57	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:57	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:57	1
Perfluorodecanoic acid (PFDA)	2 0		2 0		ng/L		11/22/25 07 45	11/24/25 12 57	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:57	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:57	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:57	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:57	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:57	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:57	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:57	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:57	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 12:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d5-NEtFOSAA	*101*		*70 - 130*	*11/22/25 07:45*	*11/24/25 12:57*	*1*
13C2 PFHxA	*104*		*70 - 130*	*11/22/25 07:45*	*11/24/25 12:57*	*1*
13C2 PFDA	*108*		*70 - 130*	*11/22/25 07:45*	*11/24/25 12:57*	*1*
13C3-GenX	*97*		*70 - 130*	*11/22/25 07:45*	*11/24/25 12:57*	*1*

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

Lab Sample ID: 380-183575-6

Date Collected: 11/17/25 09:57
Date Received: 11/19/25 09:50

Matrix: Water

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		11/24/25 06:04	11/24/25 22:36	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:36	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:36	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:36	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:36	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:36	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:36	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:36	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:36	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:36	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:36	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:36	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:36	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:36	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:36	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:36	1

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

Date Collected: 11/17/25 09:57
Date Received: 11/19/25 09:50

Lab Sample ID: 380-183575-6

Matrix: Water

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		11/24/25 06:04	11/24/25 22:36	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:36	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:36	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:36	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:36	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:36	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:36	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:36	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:36	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*92*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:36*	*1*
13C6 PFDA	*101*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:36*	*1*
13C5 PFHxA	*108*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:36*	*1*
13C4 PFHpA	*138*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:36*	*1*
13C8 PFOA	*104*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:36*	*1*
13C9 PFNA	*105*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:36*	*1*
13C7 PFUnA	*101*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:36*	*1*
13C2 PFDoA	*101*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:36*	*1*
13C4 PFBA	*103*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:36*	*1*
13C5 PFPeA	*114*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:36*	*1*
13C3 PFBS	*104*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:36*	*1*
13C3 PFHxS	*104*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:36*	*1*
13C8 PFOS	*102*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:36*	*1*
13C2-4:2-FTS	*107*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:36*	*1*
13C2-6:2-FTS	*89*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:36*	*1*
13C2-8:2-FTS	*88*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:36*	*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		11/22/25 07:45	11/24/25 13:07	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:07	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:07	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:07	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:07	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:07	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:07	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:07	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:07	1

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

Lab Sample ID: 380-183575-6

Date Collected: 11/17/25 09:57
Date Received: 11/19/25 09:50

Matrix: Water

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		11/22/25 07:45	11/24/25 13:07	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:07	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:07	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:07	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:07	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:07	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d5-NEtFOSAA	*102*		*70 - 130*	*11/22/25 07:45*	*11/24/25 13:07*	*1*
13C2 PFHxA	*97*		*70 - 130*	*11/22/25 07:45*	*11/24/25 13:07*	*1*
13C2 PFDA	*105*		*70 - 130*	*11/22/25 07:45*	*11/24/25 13:07*	*1*
13C3-GenX	*84*		*70 - 130*	*11/22/25 07:45*	*11/24/25 13:07*	*1*

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

Lab Sample ID: 380-183575-7

Date Collected: 11/17/25 10:23
Date Received: 11/19/25 09:50

Matrix: Water

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		11/24/25 06:04	11/24/25 22:46	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:46	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:46	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:46	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:46	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:46	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:46	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:46	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:46	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:46	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:46	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:46	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:46	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:46	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:46	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:46	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:46	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:46	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:46	1

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

Lab Sample ID: 380-183575-7

Date Collected: 11/17/25 10:23
Date Received: 11/19/25 09:50

Matrix: Water

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 (PFEESA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:46	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:46	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:46	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:46	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:46	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 22:46	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*91*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:46*	*1*
13C6 PFDA	*104*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:46*	*1*
13C5 PFHxA	*112*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:46*	*1*
13C4 PFHpA	*144*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:46*	*1*
13C8 PFOA	*108*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:46*	*1*
13C9 PFNA	*100*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:46*	*1*
13C7 PFUnA	*99*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:46*	*1*
13C2 PFDoA	*96*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:46*	*1*
13C4 PFBA	*104*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:46*	*1*
13C5 PFPeA	*116*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:46*	*1*
13C3 PFBS	*117*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:46*	*1*
13C3 PFHxS	*120*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:46*	*1*
13C8 PFOS	*102*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:46*	*1*
13C2-4:2-FTS	*126*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:46*	*1*
13C2-6:2-FTS	*106*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:46*	*1*
13C2-8:2-FTS	*100*		*50 - 200*	*11/24/25 06:04*	*11/24/25 22:46*	*1*

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:16	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:16	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:16	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:16	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:16	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:16	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:16	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:16	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:16	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:16	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:16	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:16	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:16	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:16	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:16	1

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

Lab Sample ID: 380-183575-7

Date Collected: 11/17/25 10:23
Date Received: 11/19/25 09:50

Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:16	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:16	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d5-NEtFOSAA	*99*		*70 - 130*	*11/22/25 07:45*	*11/24/25 13:16*	*1*
13C2 PFHxA	*103*		*70 - 130*	*11/22/25 07:45*	*11/24/25 13:16*	*1*
13C2 PFDA	*112*		*70 - 130*	*11/22/25 07:45*	*11/24/25 13:16*	*1*
13C3-GenX	*96*		*70 - 130*	*11/22/25 07:45*	*11/24/25 13:16*	*1*

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

Lab Sample ID: 380-183575-8

Date Collected: 11/17/25 10:50
Date Received: 11/19/25 09:50

Matrix: Water

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		11/24/25 06:04	11/24/25 23:05	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:05	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:05	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:05	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:05	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:05	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:05	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:05	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:05	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:05	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:05	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:05	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:05	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:05	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:05	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:05	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:05	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:05	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:05	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:05	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:05	1

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

Job ID: 380-183575-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells P1/P2, Aiea Wells Pumps 1&2

Client Sample ID: FB AIEA GULCH WELLS PUMP 1 (331-201-TP071)
Date Collected: 11/17/25 10:50
Date Received: 11/19/25 09:50

Lab Sample ID: 380-183575-8
Matrix: Water

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		11/24/25 06:04	11/24/25 23:05	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:05	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:05	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:05	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*93*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:05*	*1*
13C6 PFDA	*102*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:05*	*1*
13C5 PFHxA	*113*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:05*	*1*
13C4 PFHpA	*143*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:05*	*1*
13C8 PFOA	*107*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:05*	*1*
13C9 PFNA	*102*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:05*	*1*
13C7 PFUnA	*105*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:05*	*1*
13C2 PFDoA	*102*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:05*	*1*
13C4 PFBA	*112*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:05*	*1*
13C5 PFPeA	*120*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:05*	*1*
13C3 PFBS	*112*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:05*	*1*
13C3 PFHxS	*105*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:05*	*1*
13C8 PFOS	*110*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:05*	*1*
13C2-4:2-FTS	*123*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:05*	*1*
13C2-6:2-FTS	*102*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:05*	*1*
13C2-8:2-FTS	*97*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:05*	*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		11/22/25 07:45	11/24/25 13:26	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:26	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:26	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:26	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:26	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:26	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:26	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:26	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:26	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:26	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:26	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:26	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:26	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:26	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:26	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:26	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:26	1

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

Lab Sample ID: 380-183575-8

Date Collected: 11/17/25 10:50
Date Received: 11/19/25 09:50

Matrix: Water

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		11/22/25 07:45	11/24/25 13:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d5-NEtFOSAA	*101*		*70 - 130*	*11/22/25 07:45*	*11/24/25 13:26*	*1*
13C2 PFHxA	*95*		*70 - 130*	*11/22/25 07:45*	*11/24/25 13:26*	*1*
13C2 PFDA	*108*		*70 - 130*	*11/22/25 07:45*	*11/24/25 13:26*	*1*
13C3-GenX	*90*		*70 - 130*	*11/22/25 07:45*	*11/24/25 13:26*	*1*

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

Lab Sample ID: 380-183575-9

Date Collected: 11/17/25 11:09
Date Received: 11/19/25 09:50

Matrix: Water

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		11/24/25 06:04	11/24/25 23:14	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:14	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:14	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:14	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:14	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:14	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:14	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:14	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:14	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:14	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:14	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:14	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:14	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:14	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:14	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:14	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:14	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:14	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:14	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:14	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:14	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:14	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:14	1

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

Lab Sample ID: 380-183575-9

Date Collected: 11/17/25 11:09
Date Received: 11/19/25 09:50

Matrix: Water

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		11/24/25 06:04	11/24/25 23:14	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:14	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*85*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:14*	*1*
13C6 PFDA	*92*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:14*	*1*
13C5 PFHxA	*100*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:14*	*1*
13C4 PFHpA	*118*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:14*	*1*
13C8 PFOA	*94*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:14*	*1*
13C9 PFNA	*96*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:14*	*1*
13C7 PFUnA	*93*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:14*	*1*
13C2 PFDoA	*92*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:14*	*1*
13C4 PFBA	*101*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:14*	*1*
13C5 PFPeA	*104*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:14*	*1*
13C3 PFBS	*105*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:14*	*1*
13C3 PFHxS	*103*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:14*	*1*
13C8 PFOS	*102*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:14*	*1*
13C2-4:2-FTS	*108*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:14*	*1*
13C2-6:2-FTS	*94*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:14*	*1*
13C2-8:2-FTS	*94*		*50 - 200*	*11/24/25 06:04*	*11/24/25 23:14*	*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		11/22/25 07:45	11/24/25 13:47	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:47	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:47	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:47	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:47	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:47	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:47	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:47	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:47	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:47	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:47	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:47	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:47	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:47	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:47	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:47	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:47	1

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

Lab Sample ID: 380-183575-9

Date Collected: 11/17/25 11:09
Date Received: 11/19/25 09:50

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	88		70 - 130	11/22/25 07:45	11/24/25 13:47	1
13C2 PFHxA	100		70 - 130	11/22/25 07:45	11/24/25 13:47	1
13C2 PFDA	106		70 - 130	11/22/25 07:45	11/24/25 13:47	1
13C3-GenX	93		70 - 130	11/22/25 07:45	11/24/25 13:47	1

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

Lab Sample ID: 380-183575-10

Date Collected: 11/17/25 11:30
Date Received: 11/19/25 09:50

Matrix: Water

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		11/24/25 06:04	11/24/25 23:24	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:24	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:24	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:24	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:24	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:24	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:24	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:24	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:24	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:24	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:24	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:24	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:24	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:24	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:24	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:24	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:24	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:24	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:24	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:24	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:24	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:24	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:24	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:24	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0		ng/L		11/24/25 06:04	11/24/25 23:24	1

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

Lab Sample ID: 380-183575-10

Date Collected: 11/17/25 11:30
Date Received: 11/19/25 09:50

Matrix: Water

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	129		50 - 200	11/24/25 06:04	11/24/25 23:24	1
13C6 PFDA	111		50 - 200	11/24/25 06:04	11/24/25 23:24	1
13C5 PFHxA	137		50 - 200	11/24/25 06:04	11/24/25 23:24	1
13C4 PFHpA	166		50 - 200	11/24/25 06:04	11/24/25 23:24	1
13C8 PFOA	135		50 - 200	11/24/25 06 04	11/24/25 23 24	1
13C9 PFNA	116		50 - 200	11/24/25 06:04	11/24/25 23:24	1
13C7 PFUnA	98		50 - 200	11/24/25 06:04	11/24/25 23:24	1
13C2 PFDoA	98		50 - 200	11/24/25 06:04	11/24/25 23:24	1
13C4 PFBA	121		50 - 200	11/24/25 06:04	11/24/25 23:24	1
13C5 PFPeA	137		50 - 200	11/24/25 06:04	11/24/25 23:24	1
13C3 PFBS	141		50 - 200	11/24/25 06:04	11/24/25 23:24	1
13C3 PFHxS	128		50 - 200	11/24/25 06:04	11/24/25 23:24	1
13C8 PFOS	105		50 - 200	11/24/25 06:04	11/24/25 23:24	1
13C2-4:2-FTS	155		50 - 200	11/24/25 06:04	11/24/25 23:24	1
13C2-6:2-FTS	135		50 - 200	11/24/25 06:04	11/24/25 23:24	1
13C2-8:2-FTS	105		50 - 200	11/24/25 06:04	11/24/25 23:24	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:58	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:58	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:58	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:58	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:58	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:58	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:58	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:58	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:58	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:58	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:58	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:58	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:58	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:58	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:58	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:58	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:58	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		11/22/25 07:45	11/24/25 13:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	99		70 - 130	11/22/25 07:45	11/24/25 13:58	1
13C2 PFHxA	102		70 - 130	11/22/25 07:45	11/24/25 13:58	1
13C2 PFDA	107		70 - 130	11/22/25 07:45	11/24/25 13:58	1
13C3-GenX	89		70 - 130	11/22/25 07:45	11/24/25 13:58	1

Action Limit Summary

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

Job ID: 380-183575-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells P1/P2, Aiea Wells Pumps 1&2

Client Sample ID: MOANALUA WELLS (331-223-TP202) — Lab Sample ID: 380-183575-1

Compliance Check

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

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

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065) — Lab Sample ID: 380-183575-2

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL Limit	RL	Method	Prep Type
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.3		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.2		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	533	Total/NA
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	537.1	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.8		ng/L	4	2.0	537.1	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	537.1	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.7		ng/L	10	2.0	537.1	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	537.1	Total/NA

Client Sample ID: AIEA GULCH WELLS PUMP 1 (331-201-TP071) — Lab Sample ID: 380-183575-3

Compliance Check

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

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

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

Lab Sample ID: 380-183575-3

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL Limit	RL	Method	Prep Type
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)

Lab Sample ID: 380-183575-4

Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL Limit	RL	Method	Prep Type
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	533	Total/NA
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) P2 (331-203-TP400)

Lab Sample ID: 380-183575-5

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 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

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400) (Continued)

Lab Sample ID: 380-183575-5

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 Limit	RL	Method	Prep Type
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)

Lab Sample ID: 380-183575-6

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

Lab Sample ID: 380-183575-7

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

Lab Sample ID: 380-183575-8

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

Lab Sample ID: 380-183575-9

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

Lab Sample ID: 380-183575-10

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 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

Action Limit Summary

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

Job ID: 380-183575-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-183575-10

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 Limit	RL	Method	Prep Type
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: 380-183575-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells P1/P2, Aiea Wells Pumps 1&2

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

Matrix: Drinking Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	d5NEFOS (70-130)	PFHxA (70-130)	PFDA (70-130)	GenX (70-130)
380-183575-1	MOANALUA WELLS (331-223-T	102	99	107	98
380-183575-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	103	103	107	99
380-183575-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	102	100	104	93
380-183575-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	106	106	111	96
380-183575-4 MS	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	113	112	111	107
380-183575-4 MSD	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	112	106	110	99
380-183575-5	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	101	104	108	97

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**

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	d5NEFOS (70-130)	PFHxA (70-130)	PFDA (70-130)	GenX (70-130)
380-183575-6	FB MOANALUA WELLS (331-22	102	97	105	84
380-183575-7	FB HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	99	103	112	96
380-183575-8	FB AIEA GULCH WELLS PUMP 1 (331 201 TP071)	101	95	108	90
380-183575-9	FB AIEA GULCH WELLS PUMP 2 (331-202-TP072)	88	100	106	93
380-183575-10	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	99	102	107	89
LCS 380-188113/24-A	Lab Control Sample	110	104	109	100
MBL 380-188113/22-A	Method Blank	98	112	108	108
MRL 380-188113/23-A	Lab Control Sample	97	95	104	88

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: 380-183575-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells P1/P2, Aiea Wells Pumps 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)	PFDoA (50-200)
380-183575-1	MOANALUA WELLS (331-223-T	93	100	105	122	106	104	97	96
380-183575-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	102	97	108	124	108	105	101	100
380-183575-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	98	98	108	132	106	94	96	95
380-183575-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	102	91	117	129	109	94	91	94
380-183575-5	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	81	82	90	101	91	80	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)
380-183575-1	MOANALUA WELLS (331-223-T	105	108	108	108	107	115	119	100
380-183575-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	100	102	103	104	102	111	99	101
380-183575-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	106	105	108	106	100	109	96	92
380-183575-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	97	98	108	101	98	120	96	88
380-183575-5	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	84	85	113	109	101	111	95	94

Surrogate Legend

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

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

Matrix: Water **Prep Type: Total/NA**

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	HFPODA (50-200)	C6PFDA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	13C7PUA (50-200)	PFDoA (50-200)
380-183575-6	FB MOANALUA WELLS (331-22	92	101	108	138	104	105	101	101
380-183575-7	FB HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	91	104	112	144	108	100	99	96
380-183575-8	FB AIEA GULCH WELLS PUMP 1 (331-201-TP071)	93	102	113	143	107	102	105	102

Isotope Dilution Summary

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

Job ID: 380-183575-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells P1/P2, Aiea Wells Pumps 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)	PFDoA (50-200)
380-183575-9	FB AIEA GULCH WELLS PUMP	85	92	100	118	94	96	93	92
380-183575-10	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	129	111	137	166	135	116	98	98
380-183578-E-2-A MS	Matrix Spike	109	106	108	109	110	106	103	107
380-183578-F-2-A MSD	Matrix Spike Duplicate	110	109	115	109	111	100	105	105
LCS 380 188274/22 A	Lab Control Sample	107	112	118	120	118	109	120	115
MBL 380-188274/20-A	Method Blank	88	102	105	115	98	102	101	98
MRL 380-188274/21-A	Lab Control Sample	101	112	114	115	110	115	115	109

		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)
380-183575-6	FB MOANALUA WELLS (331-22	103	114	104	104	102	107	89	88
380-183575-7	FB HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	104	116	117	120	102	126	106	100
380-183575-8	FB AIEA GULCH WELLS PUMP 1 (331-201-TP071)	112	120	112	105	110	123	102	97
380-183575-9	FB AIEA GULCH WELLS PUMP 2 (331-202-TP072)	101	104	105	103	102	108	94	94
380-183575-10	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	121	137	141	128	105	155	135	105
380-183578-E-2-A MS	Matrix Spike	116	116	112	114	106	115	103	101
380-183578-F-2-A MSD	Matrix Spike Duplicate	106	119	116	113	105	116	103	110
LCS 380-188274/22-A	Lab Control Sample	116	113	117	108	106	115	111	103
MBL 380-188274/20-A	Method Blank	102	108	105	100	96	115	96	101
MRL 380-188274/21-A	Lab Control Sample	109	120	116	117	111	119	107	106

Surrogate Legend

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

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

Lab Sample ID: MBL 380-188274/20-A
Matrix: Water
Analysis Batch: 188424

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 188274

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		11/24/25 06:04	11/24/25 20:32	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0		ng/L		11/24/25 06:04	11/24/25 20:32	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0		ng/L		11/24/25 06:04	11/24/25 20:32	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0		ng/L		11/24/25 06:04	11/24/25 20:32	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0		ng/L		11/24/25 06:04	11/24/25 20:32	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0		ng/L		11/24/25 06:04	11/24/25 20:32	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0		ng/L		11/24/25 06:04	11/24/25 20:32	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0		ng/L		11/24/25 06:04	11/24/25 20:32	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0		ng/L		11/24/25 06:04	11/24/25 20:32	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0		ng/L		11/24/25 06:04	11/24/25 20:32	1
Perfluorononanoic acid (PFNA)	<0.40		2.0		ng/L		11/24/25 06:04	11/24/25 20:32	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0		ng/L		11/24/25 06:04	11/24/25 20:32	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0		ng/L		11/24/25 06:04	11/24/25 20:32	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0		ng/L		11/24/25 06:04	11/24/25 20:32	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0		ng/L		11/24/25 06:04	11/24/25 20:32	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0		ng/L		11/24/25 06:04	11/24/25 20:32	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0		ng/L		11/24/25 06:04	11/24/25 20:32	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0		ng/L		11/24/25 06:04	11/24/25 20:32	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0		ng/L		11/24/25 06:04	11/24/25 20:32	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<0.25		2.0		ng/L		11/24/25 06:04	11/24/25 20:32	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0		ng/L		11/24/25 06:04	11/24/25 20:32	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0		ng/L		11/24/25 06:04	11/24/25 20:32	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0		ng/L		11/24/25 06:04	11/24/25 20:32	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0		ng/L		11/24/25 06:04	11/24/25 20:32	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0		ng/L		11/24/25 06:04	11/24/25 20:32	1

Isotope Dilution	*MBL %Recovery*	*MBL Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 HFPO-DA	*88*		*50 - 200*	*11/24/25 06:04*	*11/24/25 20:32*	*1*
13C6 PFDA	*102*		*50 - 200*	*11/24/25 06:04*	*11/24/25 20:32*	*1*
13C5 PFHxA	*105*		*50 - 200*	*11/24/25 06:04*	*11/24/25 20:32*	*1*
13C4 PFHpA	*115*		*50 - 200*	*11/24/25 06:04*	*11/24/25 20:32*	*1*
13C8 PFOA	*98*		*50 - 200*	*11/24/25 06:04*	*11/24/25 20:32*	*1*
13C9 PFNA	*102*		*50 - 200*	*11/24/25 06:04*	*11/24/25 20:32*	*1*
13C7 PFUnA	*101*		*50 - 200*	*11/24/25 06:04*	*11/24/25 20:32*	*1*
13C2 PFDoA	*98*		*50 - 200*	*11/24/25 06:04*	*11/24/25 20:32*	*1*
13C4 PFBA	*102*		*50 - 200*	*11/24/25 06:04*	*11/24/25 20:32*	*1*
13C5 PFPeA	*108*		*50 - 200*	*11/24/25 06:04*	*11/24/25 20:32*	*1*
13C3 PFBS	*105*		*50 - 200*	*11/24/25 06:04*	*11/24/25 20:32*	*1*

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

Lab Sample ID: MBL 380-188274/20-A
Matrix: Water
Analysis Batch: 188424

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 188274

Isotope Dilution	*MBL %Recovery*	*MBL Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C3 PFHxS	*100*		*50 - 200*	*11/24/25 06:04*	*11/24/25 20:32*	*1*
13C8 PFOS	*96*		*50 - 200*	*11/24/25 06:04*	*11/24/25 20:32*	*1*
13C2-4:2-FTS	*115*		*50 - 200*	*11/24/25 06:04*	*11/24/25 20:32*	*1*
13C2-6:2-FTS	*96*		*50 - 200*	*11/24/25 06:04*	*11/24/25 20:32*	*1*
13C2-8:2-FTS	*101*		*50 - 200*	*11/24/25 06:04*	*11/24/25 20:32*	*1*

Lab Sample ID: LCS 380-188274/22-A
Matrix: Water
Analysis Batch: 188424

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 188274

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	121	116		ng/L		96	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	121	117		ng/L		97	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	121	95.6		ng/L		79	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	121	112		ng/L		93	70 - 130
Perfluorobutanesulfonic acid (PFBS)	121	105		ng/L		87	70 - 130
Perfluorodecanoic acid (PFDA)	121	112		ng/L		92	70 - 130
Perfluorododecanoic acid (PFDoA)	121	111		ng/L		91	70 - 130
Perfluoroheptanoic acid (PFHpA)	121	99.3		ng/L		82	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	121	113		ng/L		93	70 - 130
Perfluorohexanoic acid (PFHxA)	121	109		ng/L		90	70 - 130
Perfluorononanoic acid (PFNA)	121	110		ng/L		91	70 - 130
Perfluorooctanesulfonic acid (PFOS)	121	117		ng/L		97	70 - 130
Perfluorooctanoic acid (PFOA)	121	100		ng/L		83	70 - 130
Perfluoroundecanoic acid (PFUnA)	121	107		ng/L		88	70 - 130
Perfluorobutanoic acid (PFBA)	121	107		ng/L		88	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	121	119		ng/L		99	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	121	115		ng/L		95	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	121	118		ng/L		98	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	121	110		ng/L		91	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	121	108		ng/L		89	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	121	108		ng/L		89	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	121	112		ng/L		92	70 - 130
Perfluoropentanoic acid (PFPeA)	121	109		ng/L		90	70 - 130

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

Lab Sample ID: LCS 380-188274/22-A
Matrix: Water
Analysis Batch: 188424

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 188274

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluoroheptanesulfonic acid (PFHpS)			121	123		ng/L		102	70 - 130		
Perfluoropentanesulfonic acid (PFPeS)			121	118		ng/L		98	70 - 130		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C3 HFPO-DA	*107*		*50 - 200*
13C6 PFDA	*112*		*50 - 200*
13C5 PFHxA	*118*		*50 - 200*
13C4 PFHpA	*120*		*50 - 200*
13C8 PFOA	*118*		*50 - 200*
13C9 PFNA	*109*		*50 - 200*
13C7 PFUnA	*120*		*50 - 200*
13C2 PFDoA	*115*		*50 - 200*
13C4 PFBA	*116*		*50 - 200*
13C5 PFPeA	*113*		*50 - 200*
13C3 PFBS	*117*		*50 - 200*
13C3 PFHxS	*108*		*50 - 200*
13C8 PFOS	*106*		*50 - 200*
13C2-4:2-FTS	*115*		*50 - 200*
13C2-6:2-FTS	*111*		*50 - 200*
13C2-8:2-FTS	*103*		*50 - 200*

Lab Sample ID: MRL 380-188274/21-A
Matrix: Water
Analysis Batch: 188424

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 188274

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			2.01	1.70	J	ng/L		85	50 - 150		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)			2.01	2.01	J	ng/L		100	50 - 150		
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	2.16	J	ng/L		107	50 - 150		
Perfluorobutanesulfonic acid (PFBS)			2.01	1.79	J	ng/L		89	50 - 150		
Perfluorodecanoic acid (PFDA)			2.01	1.90	J	ng/L		95	50 - 150		
Perfluorododecanoic acid (PFDoA)			2.01	1.93	J	ng/L		96	50 - 150		
Perfluoroheptanoic acid (PFHpA)			2.01	1.85	J	ng/L		92	50 - 150		
Perfluorohexanesulfonic acid (PFHxS)			2.01	1.83	J	ng/L		91	50 - 150		
Perfluorohexanoic acid (PFHxA)			2.01	1.91	J	ng/L		95	50 - 150		
Perfluorononanoic acid (PFNA)			2.01	1.99	J	ng/L		99	50 - 150		
Perfluorooctanesulfonic acid (PFOS)			2.01	1.88	J	ng/L		94	50 - 150		
Perfluorooctanoic acid (PFOA)			2.01	1.86	J	ng/L		93	50 - 150		

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

Lab Sample ID: MRL 380-188274/21-A
Matrix: Water
Analysis Batch: 188424

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 188274

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	2.01	1.89	J	ng/L		94	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	1.91	J	ng/L		95	50 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	1.90	J	ng/L		95	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	2.07	J	ng/L		103	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	2.32	J	ng/L		116	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	1.92	J	ng/L		96	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	2.01	1.89	J	ng/L		94	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	1.77	J	ng/L		88	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	1.75	J	ng/L		87	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	1.70	J	ng/L		85	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.01	1.87	J	ng/L		93	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	1.80	J	ng/L		90	50 - 150

Isotope Dilution	*MRL %Recovery*	*MRL Qualifier*	*Limits*
13C3 HFPO-DA	*101*		*50 - 200*
13C6 PFDA	*112*		*50 - 200*
13C5 PFHxA	*114*		*50 - 200*
13C4 PFHpA	*115*		*50 - 200*
13C8 PFOA	*110*		*50 - 200*
13C9 PFNA	*115*		*50 - 200*
13C7 PFUnA	*115*		*50 - 200*
13C2 PFDoA	*109*		*50 - 200*
13C4 PFBA	*109*		*50 - 200*
13C5 PFPeA	*120*		*50 - 200*
13C3 PFBS	*116*		*50 - 200*
13C3 PFHxS	*117*		*50 - 200*
13C8 PFOS	*111*		*50 - 200*
13C2-4:2-FTS	*119*		*50 - 200*
13C2-6:2-FTS	*107*		*50 - 200*
13C2-8:2-FTS	*106*		*50 - 200*

Lab Sample ID: 380-183578-E-2-A MS
Matrix: Water
Analysis Batch: 188424

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 188274

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		121	106		ng/L		88	70 - 130

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

Lab Sample ID: 380-183578-E-2-A MS
Matrix: Water
Analysis Batch: 188424

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 188274

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		121	109		ng/L		90	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		121	97.6		ng/L		81	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		121	108		ng/L		89	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		121	108		ng/L		89	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		121	105		ng/L		87	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		121	108		ng/L		89	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		121	109		ng/L		91	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		121	97.8		ng/L		81	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		121	108		ng/L		89	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		121	107		ng/L		88	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		121	107		ng/L		89	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		121	100		ng/L		83	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		121	109		ng/L		90	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		121	98.6		ng/L		82	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		121	112		ng/L		93	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		121	117		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		121	113		ng/L		94	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		121	112		ng/L		93	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		121	108		ng/L		90	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		121	106		ng/L		88	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		121	104		ng/L		86	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		121	104		ng/L		86	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		121	114		ng/L		94	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		121	99.6		ng/L		82	70 - 130

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C3 HFPO-DA	*109*		*50 - 200*
13C6 PFDA	*106*		*50 - 200*
13C5 PFHxA	*108*		*50 - 200*
13C4 PFHpA	*109*		*50 - 200*
13C8 PFOA	*110*		*50 - 200*
13C9 PFNA	*106*		*50 - 200*
13C7 PFUnA	*103*		*50 - 200*
13C2 PFDoA	*107*		*50 - 200*

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

Lab Sample ID: 380-183578-E-2-A MS
Matrix: Water
Analysis Batch: 188424

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 188274

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C4 PFBA	*116*		*50 - 200*
13C5 PFPeA	*116*		*50 - 200*
13C3 PFBS	*112*		*50 - 200*
13C3 PFHxS	*114*		*50 - 200*
13C8 PFOS	*106*		*50 - 200*
13C2-4:2-FTS	*115*		*50 - 200*
13C2-6:2-FTS	*103*		*50 - 200*
13C2-8:2-FTS	*101*		*50 - 200*

Lab Sample ID: 380-183578-F-2-A MSD
Matrix: Water
Analysis Batch: 188424

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 188274

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		121	113		ng/L		93	70 - 130	6	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		121	119		ng/L		98	70 - 130	9	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		121	102		ng/L		84	70 - 130	4	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		121	117		ng/L		97	70 - 130	8	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		121	104		ng/L		86	70 - 130	3	30
Perfluorodecanoic acid (PFDA)	<2.0		121	107		ng/L		88	70 - 130	1	30
Perfluorododecanoic acid (PFDoA)	<2.0		121	112		ng/L		93	70 - 130	4	30
Perfluoroheptanoic acid (PFHpA)	<2.0		121	107		ng/L		88	70 - 130	2	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		121	108		ng/L		89	70 - 130	10	30
Perfluorohexanoic acid (PFHxA)	<2.0		121	102		ng/L		84	70 - 130	6	30
Perfluorononanoic acid (PFNA)	<2.0		121	110		ng/L		91	70 - 130	3	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		121	111		ng/L		92	70 - 130	4	30
Perfluorooctanoic acid (PFOA)	<2.0		121	95.5		ng/L		79	70 - 130	5	30
Perfluoroundecanoic acid (PFUnA)	<2.0		121	110		ng/L		91	70 - 130	1	30
Perfluorobutanoic acid (PFBA)	<2.0		121	112		ng/L		93	70 - 130	13	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		121	113		ng/L		94	70 - 130	1	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		121	114		ng/L		94	70 - 130	3	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		121	112		ng/L		92	70 - 130	2	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		121	109		ng/L		90	70 - 130	3	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		121	108		ng/L		89	70 - 130	0	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		121	109		ng/L		90	70 - 130	2	30

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

Lab Sample ID: 380-183578-F-2-A MSD
Matrix: Water
Analysis Batch: 188424

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 188274

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		121	105		ng/L		87	70 - 130	1	30
Perfluoropentanoic acid (PFPeA)	<2.0		121	100		ng/L		83	70 - 130	4	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		121	116		ng/L		96	70 - 130	2	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		121	107		ng/L		89	70 - 130	7	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
13C3 HFPO-DA	*110*		*50 - 200*
13C6 PFDA	*109*		*50 - 200*
13C5 PFHxA	*115*		*50 - 200*
13C4 PFHpA	*109*		*50 - 200*
13C8 PFOA	*111*		*50 - 200*
13C9 PFNA	*100*		*50 - 200*
13C7 PFUnA	*105*		*50 - 200*
13C2 PFDoA	*105*		*50 - 200*
13C4 PFBA	*106*		*50 - 200*
13C5 PFPeA	*119*		*50 - 200*
13C3 PFBS	*116*		*50 - 200*
13C3 PFHxS	*113*		*50 - 200*
13C8 PFOS	*105*		*50 - 200*
13C2-4:2-FTS	*116*		*50 - 200*
13C2-6:2-FTS	*103*		*50 - 200*
13C2-8:2-FTS	*110*		*50 - 200*

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

Lab Sample ID: MBL 380-188113/22-A
Matrix: Water
Analysis Batch: 188304

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 188113

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		11/22/25 07:45	11/24/25 11:09	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0		ng/L		11/22/25 07:45	11/24/25 11:09	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0		ng/L		11/22/25 07:45	11/24/25 11:09	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0		ng/L		11/22/25 07:45	11/24/25 11:09	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0		ng/L		11/22/25 07:45	11/24/25 11:09	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0		ng/L		11/22/25 07:45	11/24/25 11:09	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0		ng/L		11/22/25 07:45	11/24/25 11:09	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0		ng/L		11/22/25 07:45	11/24/25 11:09	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0		ng/L		11/22/25 07:45	11/24/25 11:09	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0		ng/L		11/22/25 07:45	11/24/25 11:09	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0		ng/L		11/22/25 07:45	11/24/25 11:09	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0		ng/L		11/22/25 07:45	11/24/25 11:09	1
Perfluorononanoic acid (PFNA)	<0.40		2.0		ng/L		11/22/25 07:45	11/24/25 11:09	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0		ng/L		11/22/25 07:45	11/24/25 11:09	1

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

Lab Sample ID: MBL 380-188113/22-A
Matrix: Water
Analysis Batch: 188304

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 188113

Analyte	MBL Result	MBL Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Perfluorotridecanoic acid (PFTrDA)	<0.36		2.0		ng/L		11/22/25 07:45	11/24/25 11:09	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0		ng/L		11/22/25 07:45	11/24/25 11:09	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0		ng/L		11/22/25 07:45	11/24/25 11:09	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0		ng/L		11/22/25 07:45	11/24/25 11:09	1

Surrogate	*MBL %Recovery*	*MBL Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d5-NEtFOSAA	*98*		*70 - 130*	*11/22/25 07:45*	*11/24/25 11:09*	*1*
13C2 PFHxA	*112*		*70 - 130*	*11/22/25 07 45*	*11/24/25 11 09*	*1*
13C2 PFDA	*108*		*70 - 130*	*11/22/25 07:45*	*11/24/25 11:09*	*1*
13C3-GenX	*108*		*70 - 130*	*11/22/25 07:45*	*11/24/25 11:09*	*1*

Lab Sample ID: LCS 380-188113/24-A
Matrix: Water
Analysis Batch: 188304

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 188113

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	25.0	23.6		ng/L		94	70 - 130
Perfluorooctanesulfonic acid (PFOS)	25.0	24.9		ng/L		99	70 - 130
Perfluoroundecanoic acid (PFUnA)	25.0	26.5		ng/L		106	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.0	25.1		ng/L		100	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.0	25.0		ng/L		100	70 - 130
Perfluorohexanoic acid (PFHxA)	25.0	24.3		ng/L		97	70 - 130
Perfluorododecanoic acid (PFDoA)	25.0	25.2		ng/L		101	70 - 130
Perfluorooctanoic acid (PFOA)	25.0	25.1		ng/L		100	70 - 130
Perfluorodecanoic acid (PFDA)	25.0	25.2		ng/L		101	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	25.0	25.7		ng/L		103	70 - 130
Perfluorobutanesulfonic acid (PFBS)	25.0	25.8		ng/L		103	70 - 130
Perfluoroheptanoic acid (PFHpA)	25.0	24.7		ng/L		99	70 - 130
Perfluorononanoic acid (PFNA)	25.0	25.5		ng/L		102	70 - 130
Perfluorotetradecanoic acid (PFTA)	25.0	22.8		ng/L		91	70 - 130
Perfluorotridecanoic acid (PFTrDA)	25.0	26.1		ng/L		105	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	25.0	25.6		ng/L		102	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	25.0	25.2		ng/L		101	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	25.0	23.5		ng/L		94	70 - 130

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
d5-NEtFOSAA	110		70 - 130
13C2 PFHxA	104		70 - 130
13C2 PFDA	109		70 - 130
13C3-GenX	100		70 - 130

Lab Sample ID: MRL 380-188113/23-A
Matrix: Water
Analysis Batch: 188304

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 188113

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	1.82	J	ng/L		91	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.34	J	ng/L		117	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.22	J	ng/L		111	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	2.08	J	ng/L		104	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	2.13	J	ng/L		106	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	2.02	J	ng/L		101	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.17	J	ng/L		108	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.19	J	ng/L		109	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.13	J	ng/L		106	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.40	J	ng/L		120	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.26	J	ng/L		113	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.02	J	ng/L		101	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.27	J	ng/L		113	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.00	1.89	J	ng/L		94	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.00	2.23	J	ng/L		111	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	2.24	J	ng/L		112	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	2.21	J	ng/L		110	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	1.99	J	ng/L		99	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
d5-NEtFOSAA	97		70 - 130
13C2 PFHxA	95		70 - 130
13C2 PFDA	104		70 - 130
13C3-GenX	88		70 - 130

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

Lab Sample ID: 380-183575-4 MS
Matrix: Drinking Water
Analysis Batch: 188304

Client Sample ID: AIEA GULCH WELLS PUMP 2 (331-202-TP072)
Prep Type: Total/NA
Prep Batch: 188113

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		25.2	24.8		ng/L		99	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		25.2	25.8		ng/L		103	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		25.2	26.4		ng/L		105	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.2	25.9		ng/L		103	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		25.2	24.8		ng/L		99	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		25.2	25.9		ng/L		100	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		25.2	25.9		ng/L		103	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		25.2	25.8		ng/L		103	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		25.2	25.5		ng/L		102	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		25.2	27.0		ng/L		105	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		25.2	25.6		ng/L		102	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		25.2	25.6		ng/L		102	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		25.2	26.4		ng/L		105	70 - 130
Perfluorotetradecanoic acid (PFTA)	<2.0		25.2	20.4		ng/L		81	70 - 130
Perfluorotridecanoic acid (PFTrDA)	<2.0		25.2	26.3		ng/L		104	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		25.2	26.3		ng/L		104	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		25.2	25.0		ng/L		99	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		25.2	25.5		ng/L		101	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
d5-NEtFOSAA	*113*		*70 - 130*
13C2 PFHxA	*112*		*70 - 130*
13C2 PFDA	*111*		*70 - 130*
13C3-GenX	*107*		*70 - 130*

Lab Sample ID: 380-183575-4 MSD
Matrix: Drinking Water
Analysis Batch: 188304

Client Sample ID: AIEA GULCH WELLS PUMP 2 (331-202-TP072)
Prep Type: Total/NA
Prep Batch: 188113

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		25.2	24.9		ng/L		99	70 - 130	0	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		25.2	26.7		ng/L		106	70 - 130	3	30
Perfluoroundecanoic acid (PFUnA)	<2.0		25.2	26.8		ng/L		107	70 - 130	1	30

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

Lab Sample ID: 380-183575-4 MSD
Client Sample ID: AIEA GULCH WELLS PUMP 2 (331-202-TP072)
Matrix: Drinking Water
Prep Type: Total/NA
Analysis Batch: 188304
Prep Batch: 188113

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.2	27.0		ng/L		107	70 - 130	4	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		25.2	25.7		ng/L		102	70 - 130	3	30
Perfluorohexanoic acid (PFHxA)	<2.0		25.2	25.9		ng/L		100	70 - 130	0	30
Perfluorododecanoic acid (PFDoA)	<2.0		25.2	25.6		ng/L		102	70 - 130	1	30
Perfluorooctanoic acid (PFOA)	<2.0		25.2	26.4		ng/L		105	70 - 130	2	30
Perfluorodecanoic acid (PFDA)	<2.0		25.2	26.5		ng/L		105	70 - 130	4	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		25.2	27.9		ng/L		109	70 - 130	3	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		25.2	26.6		ng/L		106	70 - 130	4	30
Perfluoroheptanoic acid (PFHpA)	<2.0		25.2	26.3		ng/L		104	70 - 130	3	30
Perfluorononanoic acid (PFNA)	<2.0		25.2	25.9		ng/L		103	70 - 130	2	30
Perfluorotetradecanoic acid (PFTA)	<2.0		25.2	21.8		ng/L		87	70 - 130	7	30
Perfluorotridecanoic acid (PFTrDA)	<2.0		25.2	27.4		ng/L		109	70 - 130	4	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		25.2	26.9		ng/L		107	70 - 130	2	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		25.2	26.5		ng/L		105	70 - 130	6	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		25.2	25.5		ng/L		101	70 - 130	0	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
d5-NEtFOSAA	*112*		*70 - 130*
13C2 PFHxA	*106*		*70 - 130*
13C2 PFDA	*110*		*70 - 130*
13C3-GenX	*99*		*70 - 130*

LCMS

Prep Batch: 188113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-183575-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	537.1 DW	
380-183575-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP0	Total/NA	Drinking Water	537.1 DW	
380-183575-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	537.1 DW	
380-183575-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	537.1 DW	
380-183575-5	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP	Total/NA	Drinking Water	537.1 DW	
380-183575-6	FB MOANALUA WELLS (331-223-TP202)	Total/NA	Water	537.1 DW	
380-183575-7	FB HALAWA WELLS UNITS 1 & 2 (331-206-TP0	Total/NA	Water	537.1 DW	
380-183575-8	FB AIEA GULCH WELLS PUMP 1 (331-201-TP0	Total/NA	Water	537.1 DW	
380-183575-9	FB AIEA GULCH WELLS PUMP 2 (331-202-TP0	Total/NA	Water	537.1 DW	
380-183575-10	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP	Total/NA	Water	537.1 DW	
MBL 380-188113/22-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-188113/24-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-188113/23-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-183575-4 MS	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	537.1 DW	
380-183575-4 MSD	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	537.1 DW	

Prep Batch: 188274

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-183575-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	533	
380-183575-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP0	Total/NA	Drinking Water	533	
380-183575-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	533	
380-183575-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	533	
380-183575-5	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP	Total/NA	Drinking Water	533	
380-183575-6	FB MOANALUA WELLS (331-223-TP202)	Total/NA	Water	533	
380-183575-7	FB HALAWA WELLS UNITS 1 & 2 (331-206-TP0	Total/NA	Water	533	
380-183575-8	FB AIEA GULCH WELLS PUMP 1 (331-201-TP0	Total/NA	Water	533	
380-183575-9	FB AIEA GULCH WELLS PUMP 2 (331-202-TP0	Total/NA	Water	533	
380-183575-10	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP	Total/NA	Water	533	
MBL 380-188274/20-A	Method Blank	Total/NA	Water	533	
LCS 380-188274/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-188274/21-A	Lab Control Sample	Total/NA	Water	533	
380-183578-E-2-A MS	Matrix Spike	Total/NA	Water	533	
380-183578-F-2-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 188304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-183575-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	537.1	188113
380-183575-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP0	Total/NA	Drinking Water	537.1	188113
380-183575-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	537.1	188113
380-183575-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	537.1	188113
380-183575-5	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP	Total/NA	Drinking Water	537.1	188113
380-183575-6	FB MOANALUA WELLS (331-223-TP202)	Total/NA	Water	537.1	188113
380-183575-7	FB HALAWA WELLS UNITS 1 & 2 (331-206-TP0	Total/NA	Water	537.1	188113
380-183575-8	FB AIEA GULCH WELLS PUMP 1 (331-201-TP0	Total/NA	Water	537.1	188113
380-183575-9	FB AIEA GULCH WELLS PUMP 2 (331-202-TP0	Total/NA	Water	537.1	188113
380-183575-10	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP	Total/NA	Water	537.1	188113
MBL 380-188113/22-A	Method Blank	Total/NA	Water	537.1	188113
LCS 380-188113/24-A	Lab Control Sample	Total/NA	Water	537.1	188113
MRL 380-188113/23-A	Lab Control Sample	Total/NA	Water	537.1	188113
380-183575-4 MS	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	537.1	188113

LCMS (Continued)

Analysis Batch: 188304 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-183575-4 MSD	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	537.1	188113

Analysis Batch: 188424

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-183575-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Drinking Water	533	188274
380-183575-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP0	Total/NA	Drinking Water	533	188274
380-183575-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Drinking Water	533	188274
380-183575-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Drinking Water	533	188274
380-183575-5	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP	Total/NA	Drinking Water	533	188274
380-183575-6	FB MOANALUA WELLS (331-223-TP202)	Total/NA	Water	533	188274
380-183575-7	FB HALAWA WELLS UNITS 1 & 2 (331-206-TP0	Total/NA	Water	533	188274
380-183575-8	FB AIEA GULCH WELLS PUMP 1 (331-201-TP0	Total/NA	Water	533	188274
380-183575-9	FB AIEA GULCH WELLS PUMP 2 (331-202-TP0	Total/NA	Water	533	188274
380-183575-10	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP	Total/NA	Water	533	188274
MBL 380-188274/20-A	Method Blank	Total/NA	Water	533	188274
LCS 380-188274/22-A	Lab Control Sample	Total/NA	Water	533	188274
MRL 380-188274/21-A	Lab Control Sample	Total/NA	Water	533	188274
380-183578-E-2-A MS	Matrix Spike	Total/NA	Water	533	188274
380-183578-F-2-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	188274

Lab Chronicle

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

Job ID: 380-183575-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-183575-1

Date Collected: 11/17/25 09:57
Matrix: Drinking Water
Date Received: 11/19/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			188274	XTD8	EA POM	11/24/25 06:04
Total/NA	Analysis	533		1	188424	SZ9R	EA POM	11/24/25 21:48
Total/NA	Prep	537.1 DW			188113	E9PK	EA POM	11/22/25 07:45
Total/NA	Analysis	537.1		1	188304	M7ML	EA POM	11/24/25 12:28

Client Sample ID: HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)

Lab Sample ID: 380-183575-2

Date Collected: 11/17/25 10:23
Matrix: Drinking Water
Date Received: 11/19/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			188274	XTD8	EA POM	11/24/25 06:04
Total/NA	Analysis	533		1	188424	SZ9R	EA POM	11/24/25 21:58
Total/NA	Prep	537.1 DW			188113	E9PK	EA POM	11/22/25 07:45
Total/NA	Analysis	537.1		1	188304	M7ML	EA POM	11/24/25 12:38

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

Lab Sample ID: 380-183575-3

Date Collected: 11/17/25 10:50
Matrix: Drinking Water
Date Received: 11/19/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			188274	XTD8	EA POM	11/24/25 06:04
Total/NA	Analysis	533		1	188424	SZ9R	EA POM	11/24/25 22:07
Total/NA	Prep	537.1 DW			188113	E9PK	EA POM	11/22/25 07:45
Total/NA	Analysis	537.1		1	188304	M7ML	EA POM	11/24/25 12:47

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

Lab Sample ID: 380-183575-4

Date Collected: 11/17/25 11:09
Matrix: Drinking Water
Date Received: 11/19/25 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			188274	XTD8	EA POM	11/24/25 06:04
Total/NA	Analysis	533		1	188424	SZ9R	EA POM	11/24/25 22:17
Total/NA	Prep	537.1 DW			188113	E9PK	EA POM	11/22/25 07:45
Total/NA	Analysis	537.1		1	188304	M7ML	EA POM	11/24/25 11:39

Client Sample ID: AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)

Lab Sample ID: 380-183575-5

Date Collected: 11/17/25 11:30
Date Received: 11/19/25 09:50

Matrix: Drinking Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			188274	XTD8	EA POM	11/24/25 06:04
Total/NA	Analysis	533		1	188424	SZ9R	EA POM	11/24/25 22:27
Total/NA	Prep	537.1 DW			188113	E9PK	EA POM	11/22/25 07:45
Total/NA	Analysis	537.1		1	188304	M7ML	EA POM	11/24/25 12:57

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

Lab Sample ID: 380-183575-6

Date Collected: 11/17/25 09:57
Date Received: 11/19/25 09:50

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			188274	XTD8	EA POM	11/24/25 06:04
Total/NA	Analysis	533		1	188424	SZ9R	EA POM	11/24/25 22:36
Total/NA	Prep	537.1 DW			188113	E9PK	EA POM	11/22/25 07:45
Total/NA	Analysis	537.1		1	188304	M7ML	EA POM	11/24/25 13:07

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

Lab Sample ID: 380-183575-7

Date Collected: 11/17/25 10:23
Date Received: 11/19/25 09:50

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			188274	XTD8	EA POM	11/24/25 06:04
Total/NA	Analysis	533		1	188424	SZ9R	EA POM	11/24/25 22:46
Total/NA	Prep	537.1 DW			188113	E9PK	EA POM	11/22/25 07:45
Total/NA	Analysis	537.1		1	188304	M7ML	EA POM	11/24/25 13:16

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

Lab Sample ID: 380-183575-8

Date Collected: 11/17/25 10:50
Date Received: 11/19/25 09:50

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			188274	XTD8	EA POM	11/24/25 06:04
Total/NA	Analysis	533		1	188424	SZ9R	EA POM	11/24/25 23:05
Total/NA	Prep	537.1 DW			188113	E9PK	EA POM	11/22/25 07:45
Total/NA	Analysis	537.1		1	188304	M7ML	EA POM	11/24/25 13:26

Lab Chronicle

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

Job ID: 380-183575-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells P1/P2, Aiea Wells Pumps 1&2

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

Lab Sample ID: 380-183575-9

Date Collected: 11/17/25 11:09
Date Received: 11/19/25 09:50

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			188274	XTD8	EA POM	11/24/25 06:04
Total/NA	Analysis	533		1	188424	SZ9R	EA POM	11/24/25 23:14
Total/NA	Prep	537.1 DW			188113	E9PK	EA POM	11/22/25 07:45
Total/NA	Analysis	537.1		1	188304	M7ML	EA POM	11/24/25 13:47

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

Lab Sample ID: 380-183575-10

Date Collected: 11/17/25 11:30
Date Received: 11/19/25 09:50

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			188274	XTD8	EA POM	11/24/25 06:04
Total/NA	Analysis	533		1	188424	SZ9R	EA POM	11/24/25 23:24
Total/NA	Prep	537.1 DW			188113	E9PK	EA POM	11/22/25 07:45
Total/NA	Analysis	537.1		1	188304	M7ML	EA POM	11/24/25 13:58

Laboratory References:

EA POM = Eurofins Eaton Analytical Pomona, 941 Corporate Center Drive, Pomona, CA 91768-2642, TEL (626)386-1100

Accreditation/Certification Summary

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

Job ID: 380-183575-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells P1/P2, Aiea Wells Pumps 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

Method Summary

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

Job ID: 380-183575-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells P1/P2, Aiea Wells Pumps 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: 380-183575-1
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells P1/P2, Aiea Wells Pumps 1&2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-183575-1	MOANALUA WELLS (331-223-TP202)	Drinking Water	11/17/25 09:57	11/19/25 09:50	Hawaii
380-183575-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	Drinking Water	11/17/25 10:23	11/19/25 09:50	Hawaii
380-183575-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Drinking Water	11/17/25 10:50	11/19/25 09:50	Hawaii
380-183575-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Drinking Water	11/17/25 11:09	11/19/25 09:50	Hawaii
380-183575-5	AIEA WELLS PUMPS 1&2 (260) P2 (331-203-TP400)	Drinking Water	11/17/25 11:30	11/19/25 09:50	Hawaii
380-183575-6	FB MOANALUA WELLS (331-223-TP202)	Water	11/17/25 09:57	11/19/25 09:50	Hawaii
380-183575-7	FB HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Water	11/17/25 10:23	11/19/25 09:50	Hawaii
380-183575-8	FB AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Water	11/17/25 10:50	11/19/25 09:50	Hawaii
380-183575-9	FB AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Water	11/17/25 11:09	11/19/25 09:50	Hawaii
380-183575-10	FB AIEA WELLS PUMPS 1&2 (260) (331-203-TP400)	Water	11/17/25 11:30	11/19/25 09:50	Hawaii

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

Chain of Custody Record

eurofins | Environment Testing America

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

Analysis Requested

Preservation Codes.

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs	8015B_GRO_LL (MOD) GRO	8015B_DRO_LL_CS - HNL Ranges C10-C24/C24-C36/C8 C18	525.2_PREC (MOD) 525plus PLUS TICs	537 1_DW_PREC 537 1 Full List	533 All Analytes	Total Number of containers	Special Instructions/Note
			Preservation Code:				R	A	Q	QA	Y	I		
Moanalua Wells	17-Nov-2025	0957	G	Water							3	3		chlorinated
Halawa Wells Units 1&2 P1	17-Nov-2025	1023	G	Water							3	3		
Aiea Gulch Wells Pump 1	17-Nov-2025	1050	G	Water							3	3		chlorinated
Aiea Gulch Wells Pump 2	17-Nov-2025	1109	G	Water							3	3		chlorinated
Aiea Wells Pumps 1&2 (260) P2	17-Nov-2025	1130	G	Water							3	3		
FB Moanalua Wells	17-Nov-2025	0957									1	1		
FB Halawa Wells Units 1&2	17-Nov-2025	1023									1	1		
FB Aiea Gulch Wells Pump 1	17-Nov-2025	1050									1	1		
FB Aiea Gulch Wells Pump 2	17-Nov-2025	1109									1	1		380-183575 COC
FB Aiea Wells Pumps 1&2 (260)	17-Nov-2025	1130									1	1		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested I II III IV Other (specify)

Special Instructions/QC Requirements: 6385 4511

Empty Kit Relinquished by:	Date:	Time	Method of Shipment: FedEx 8861
[redacted]	Date/Time: 18 November 2025 1400	Company: HBWS	Received by: Mark Urrutia Date/Time: 11/19/25 950 Company: EEAP
Relinquished by:	Date/Time:	Company	Received by: Date/Time: Company
Relinquished by:	Date/Time:	Company	Received by: Date/Time: Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks: (631A) 2.7+0.0=2.7 gel - frozen

Ver: 01/16/2019

ORIGIN ID HIKA (808) 748-5840
BWS CHEMLAB
HONOLULU BOARD OF WATER SUPPLY
630 S. BERETANIA ST
CHEMICAL LABORATORY
HONOLULU HI 96843
UNITED STATES US

SHIP DATE. 17NOV25
ACTWGT 53.00 LB
CAD· 258050552/INET4535

BILL RECIPIENT

TO EUROFINS RECEIVING DEPARTMENT
EUROFINS DRINKING WATER TESTING
941 CORPORATE CENTER DR

POMONA CA 91768
(626) 386-1100 REF·
INV·
PO: DEPT.

58HJ4/D239/59F2

FedEx Express

J354025592401uv

1 of 2

TUE - 18 NOV 10:30A
PRIORITY OVERNIGHT

TRK# 0201 8861 2110 8458
MASTER

WM ONTA

91768
CA-US ONT

(631A)46+0048 gel-frozen

Manifest Manifesting 11/19/25 950

After printing this label
CONSIGNEE COPY - PLEASE PLACE IN FRONT OF POUCH
1 Fold the printed page along the horizontal line
2 Place label in shipping pouch and affix it to your shipment

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex com FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special Is limited to the greater of $100 or the authorized declared value Recovery cannot exceed actual documented loss Maximum for items of extraordinary value is $1,000, e g jewelry, precious metals, negotiable instruments and other items listed in our Service Guide Written claims must be filed within strict time limits, see current FedEx Service Guide

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-183575-1

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

Login Number: 183575

List Source: Eurofins Eaton Analytical Pomona

List Number: 1

Creator: Ngo, Theodore

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	
ClO4 headspace requirement met (>50% for CA, >30% for other states).	N/A	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	