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# ANALYTICAL REPORT

## PREPARED FOR

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City & County of Honolulu  
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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

380-185831-1

# Eurofins Eaton Analytical Pomona

## Job Notes

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

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

## Compliance Statement

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

## Authorization



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# Definitions/Glossary

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

Job ID: 380-185831-1  
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

# Case Narrative

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

Job ID: 380-185831-1

**Job ID: 380-185831-1**

**Eurofins Eaton Analytical Pomona**

## Job Narrative 380-185831-1

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 12/3/2025 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.6°C.

### PFAS

Method 533: PFAS results by 533 for MOANALUA WELLS (331-223-TP202) (380-185831-1) collected on 12/1/25 are a resample for MOANALUA WELLS (331-223-TP202) (380-185055-1) collected on 11/24/25. (XWB4)

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 (331-206-TP065). (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: 380-185831-1  
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: 380-185831-1**

No Detections.

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

**Lab Sample ID: 380-185831-2**

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorohexanesulfonic acid (PFHxS)	2.4		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.2		2.0	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	2.0		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	2.9		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)	2.9		2.0	ng/L	1		537.1	Total/NA

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

**Lab Sample ID: 380-185831-3**

No Detections.

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

**Lab Sample ID: 380-185831-4**

No Detections.

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

**Lab Sample ID: 380-185831-5**

No Detections.

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

**Lab Sample ID: 380-185831-6**

No Detections.

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

**Lab Sample ID: 380-185831-7**

No Detections.

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

**Lab Sample ID: 380-185831-8**

No Detections.

This Detection Summary does not include radiochemical test results.

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# Client Sample Results

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

Job ID: 380-185831-1  
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: 380-185831-1**

Date Collected: 12/01/25 10:24

Matrix: Water

Date Received: 12/03/25 10:30

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 18:59	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 18:59	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 18:59	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 18:59	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 18:59	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 18:59	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 18:59	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 18:59	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 18:59	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 18:59	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 18:59	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 18:59	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 18:59	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 18:59	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 18:59	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 18:59	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 18:59	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 18:59	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 18:59	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 18:59	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 18:59	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 18:59	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 18:59	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 18:59	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 18:59	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	79		50 - 200	12/09/25 07:13	12/09/25 18:59	1
13C6 PFDA	75		50 - 200	12/09/25 07:13	12/09/25 18:59	1
13C5 PFHxA	85		50 - 200	12/09/25 07:13	12/09/25 18:59	1
13C4 PFHpA	83		50 - 200	12/09/25 07:13	12/09/25 18:59	1
13C8 PFOA	83		50 - 200	12/09/25 07:13	12/09/25 18:59	1
13C9 PFNA	79		50 - 200	12/09/25 07:13	12/09/25 18:59	1
13C7 PFUnA	74		50 - 200	12/09/25 07:13	12/09/25 18:59	1
13C2 PFDoA	81		50 - 200	12/09/25 07:13	12/09/25 18:59	1
13C4 PFBA	91		50 - 200	12/09/25 07:13	12/09/25 18:59	1
13C5 PFPeA	88		50 - 200	12/09/25 07:13	12/09/25 18:59	1
13C3 PFBS	116		50 - 200	12/09/25 07:13	12/09/25 18:59	1
13C3 PFHxS	113		50 - 200	12/09/25 07:13	12/09/25 18:59	1

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# Client Sample Results

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

Job ID: 380-185831-1  
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: 380-185831-1**

Date Collected: 12/01/25 10:24

Matrix: Water

Date Received: 12/03/25 10:30

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	118		50 - 200	12/09/25 07:13	12/09/25 18:59	1
13C2-4:2-FTS	123		50 - 200	12/09/25 07:13	12/09/25 18:59	1
13C2-6:2-FTS	126		50 - 200	12/09/25 07:13	12/09/25 18:59	1
13C2-8:2-FTS	123		50 - 200	12/09/25 07:13	12/09/25 18:59	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		12/04/25 13:02	12/05/25 07:47	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:47	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:47	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:47	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:47	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:47	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:47	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:47	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:47	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:47	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:47	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:47	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:47	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:47	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:47	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:47	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:47	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	105		70 - 130	12/04/25 13:02	12/05/25 07:47	1
13C2 PFHxA	113		70 - 130	12/04/25 13:02	12/05/25 07:47	1
13C2 PFDA	111		70 - 130	12/04/25 13:02	12/05/25 07:47	1
13C3-GenX	106		70 - 130	12/04/25 13:02	12/05/25 07:47	1

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

**Lab Sample ID: 380-185831-2**

Date Collected: 12/01/25 10:52

Matrix: Water

Date Received: 12/03/25 10:30

**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		12/11/25 13:59	12/12/25 13:27	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:27	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:27	1

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# Client Sample Results

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

Job ID: 380-185831-1  
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells  
P1/P2, Aiea Wells Pumps 1&2

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

**Lab Sample ID: 380-185831-2**

**Date Collected: 12/01/25 10:52**

**Matrix: Water**

**Date Received: 12/03/25 10:30**

**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		12/11/25 13:59	12/12/25 13:27	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:27	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:27	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:27	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:27	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>2.4</b>		2.0	ng/L		12/11/25 13:59	12/12/25 13:27	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:27	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:27	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>2.2</b>		2.0	ng/L		12/11/25 13:59	12/12/25 13:27	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:27	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:27	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:27	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:27	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:27	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:27	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:27	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:27	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:27	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:27	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>2.0</b>		2.0	ng/L		12/11/25 13:59	12/12/25 13:27	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:27	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:27	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	101		50 - 200	12/11/25 13:59	12/12/25 13:27	1
13C6 PFDA	101		50 - 200	12/11/25 13:59	12/12/25 13:27	1
13C5 PFHxA	105		50 - 200	12/11/25 13:59	12/12/25 13:27	1
13C4 PFHpA	104		50 - 200	12/11/25 13:59	12/12/25 13:27	1
13C8 PFOA	104		50 - 200	12/11/25 13:59	12/12/25 13:27	1
13C9 PFNA	104		50 - 200	12/11/25 13:59	12/12/25 13:27	1
13C7 PFUnA	99		50 - 200	12/11/25 13:59	12/12/25 13:27	1
13C2 PFDoA	100		50 - 200	12/11/25 13:59	12/12/25 13:27	1
13C4 PFBA	106		50 - 200	12/11/25 13:59	12/12/25 13:27	1
13C5 PFPeA	108		50 - 200	12/11/25 13:59	12/12/25 13:27	1
13C3 PFBS	110		50 - 200	12/11/25 13:59	12/12/25 13:27	1
13C3 PFHxS	109		50 - 200	12/11/25 13:59	12/12/25 13:27	1
13C8 PFOS	108		50 - 200	12/11/25 13:59	12/12/25 13:27	1
13C2-4:2-FTS	115		50 - 200	12/11/25 13:59	12/12/25 13:27	1
13C2-6:2-FTS	117		50 - 200	12/11/25 13:59	12/12/25 13:27	1

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# Client Sample Results

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

Job ID: 380-185831-1  
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells  
P1/P2, Aiea Wells Pumps 1&2

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

**Lab Sample ID: 380-185831-2**

**Date Collected: 12/01/25 10:52**

**Matrix: Water**

**Date Received: 12/03/25 10:30**

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2-8:2-FTS	103		50 - 200	12/11/25 13:59	12/12/25 13:27	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		12/04/25 13:02	12/05/25 07:57	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>2.9</b>		2.0	ng/L		12/04/25 13:02	12/05/25 07:57	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:57	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:57	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:57	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>2.0</b>		2.0	ng/L		12/04/25 13:02	12/05/25 07:57	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:57	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:57	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:57	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>2.9</b>		2.0	ng/L		12/04/25 13:02	12/05/25 07:57	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:57	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:57	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:57	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:57	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:57	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:57	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:57	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 07:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	108		70 - 130	12/04/25 13:02	12/05/25 07:57	1
13C2 PFHxA	109		70 - 130	12/04/25 13:02	12/05/25 07:57	1
13C2 PFDA	112		70 - 130	12/04/25 13:02	12/05/25 07:57	1
13C3-GenX	105		70 - 130	12/04/25 13:02	12/05/25 07:57	1

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

**Lab Sample ID: 380-185831-3**

**Date Collected: 12/01/25 11:27**

**Matrix: Water**

**Date Received: 12/03/25 10:30**

**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		12/11/25 13:59	12/12/25 13:36	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:36	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:36	1

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# Client Sample Results

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

Job ID: 380-185831-1  
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)**

**Lab Sample ID: 380-185831-3**

**Date Collected: 12/01/25 11:27**

**Matrix: Water**

**Date Received: 12/03/25 10:30**

**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		12/11/25 13:59	12/12/25 13:36	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:36	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:36	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:36	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:36	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:36	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:36	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:36	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:36	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:36	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:36	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:36	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:36	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:36	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:36	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:36	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:36	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:36	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:36	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:36	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:36	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		12/11/25 13:59	12/12/25 13:36	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	78		50 - 200	12/11/25 13:59	12/12/25 13:36	1
13C6 PFDA	83		50 - 200	12/11/25 13:59	12/12/25 13:36	1
13C5 PFHxA	85		50 - 200	12/11/25 13:59	12/12/25 13:36	1
13C4 PFHpA	85		50 - 200	12/11/25 13:59	12/12/25 13:36	1
13C8 PFOA	85		50 - 200	12/11/25 13:59	12/12/25 13:36	1
13C9 PFNA	85		50 - 200	12/11/25 13:59	12/12/25 13:36	1
13C7 PFUnA	83		50 - 200	12/11/25 13:59	12/12/25 13:36	1
13C2 PFDoA	84		50 - 200	12/11/25 13:59	12/12/25 13:36	1
13C4 PFBA	88		50 - 200	12/11/25 13:59	12/12/25 13:36	1
13C5 PFPeA	87		50 - 200	12/11/25 13:59	12/12/25 13:36	1
13C3 PFBS	111		50 - 200	12/11/25 13:59	12/12/25 13:36	1
13C3 PFHxS	110		50 - 200	12/11/25 13:59	12/12/25 13:36	1
13C8 PFOS	112		50 - 200	12/11/25 13:59	12/12/25 13:36	1
13C2-4:2-FTS	108		50 - 200	12/11/25 13:59	12/12/25 13:36	1
13C2-6:2-FTS	111		50 - 200	12/11/25 13:59	12/12/25 13:36	1
13C2-8:2-FTS	99		50 - 200	12/11/25 13:59	12/12/25 13:36	1

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# Client Sample Results

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

Job ID: 380-185831-1  
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)**

**Lab Sample ID: 380-185831-3**

**Date Collected: 12/01/25 11:27**

**Matrix: Water**

**Date Received: 12/03/25 10:30**

**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		12/04/25 13:02	12/05/25 08:06	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:06	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:06	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:06	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:06	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:06	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:06	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:06	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:06	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:06	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:06	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:06	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:06	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:06	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:06	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:06	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:06	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	106		70 - 130			12/04/25 13:02	12/05/25 08:06	1
13C2 PFHxA	111		70 - 130			12/04/25 13:02	12/05/25 08:06	1
13C2 PFDA	112		70 - 130			12/04/25 13:02	12/05/25 08:06	1
13C3-GenX	106		70 - 130			12/04/25 13:02	12/05/25 08:06	1

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

**Lab Sample ID: 380-185831-4**

**Date Collected: 12/01/25 11:53**

**Matrix: Water**

**Date Received: 12/03/25 10:30**

**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		12/09/25 07:13	12/09/25 19:27	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:27	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:27	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:27	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:27	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:27	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:27	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:27	1

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# Client Sample Results

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

Job ID: 380-185831-1  
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells  
P1/P2, Aiea Wells Pumps 1&2

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

**Lab Sample ID: 380-185831-4**

**Date Collected: 12/01/25 11:53**

**Matrix: Water**

**Date Received: 12/03/25 10:30**

**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		12/09/25 07:13	12/09/25 19:27	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:27	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:27	1
Perfluorooctanesulfonic acid (PFOS)	2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:27	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:27	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:27	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:27	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:27	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:27	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:27	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:27	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:27	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:27	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:27	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:27	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:27	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:27	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	67		50 - 200	12/09/25 07:13	12/09/25 19:27	1
13C6 PFDA	83		50 - 200	12/09/25 07:13	12/09/25 19:27	1
13C5 PFHxA	77		50 - 200	12/09/25 07:13	12/09/25 19:27	1
13C4 PFHpA	76		50 - 200	12/09/25 07:13	12/09/25 19:27	1
13C8 PFOA	80		50 - 200	12/09/25 07:13	12/09/25 19:27	1
13C9 PFNA	82		50 - 200	12/09/25 07:13	12/09/25 19:27	1
13C7 PFUnA	84		50 - 200	12/09/25 07:13	12/09/25 19:27	1
13C2 PFDoA	84		50 - 200	12/09/25 07:13	12/09/25 19:27	1
13C4 PFBA	80		50 - 200	12/09/25 07:13	12/09/25 19:27	1
13C5 PFPeA	80		50 - 200	12/09/25 07:13	12/09/25 19:27	1
13C3 PFBS	107		50 - 200	12/09/25 07:13	12/09/25 19:27	1
13C3 PFHxS	109		50 - 200	12/09/25 07:13	12/09/25 19:27	1
13C8 PFOS	112		50 - 200	12/09/25 07:13	12/09/25 19:27	1
13C2-4:2-FTS	118		50 - 200	12/09/25 07:13	12/09/25 19:27	1
13C2-6:2-FTS	120		50 - 200	12/09/25 07:13	12/09/25 19:27	1
13C2-8:2-FTS	112		50 - 200	12/09/25 07:13	12/09/25 19:27	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		12/04/25 13:02	12/05/25 08:16	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:16	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:16	1

Eurofins Eaton Analytical Pomona

# Client Sample Results

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

Job ID: 380-185831-1  
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells  
P1/P2, Aiea Wells Pumps 1&2

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

**Lab Sample ID: 380-185831-4**

**Date Collected: 12/01/25 11:53**

**Matrix: Water**

**Date Received: 12/03/25 10:30**

**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		12/04/25 13:02	12/05/25 08:16	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:16	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:16	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:16	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:16	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:16	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:16	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:16	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:16	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:16	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:16	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:16	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:16	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:16	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:16	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
d5-NEtFOSAA	101		70 - 130			12/04/25 13:02	12/05/25 08:16	1
13C2 PFHxA	108		70 - 130			12/04/25 13:02	12/05/25 08:16	1
13C2 PFDA	112		70 - 130			12/04/25 13:02	12/05/25 08:16	1
13C3-GenX	102		70 - 130			12/04/25 13:02	12/05/25 08:16	1

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

**Lab Sample ID: 380-185831-5**

**Date Collected: 12/01/25 10:27**

**Matrix: Water**

**Date Received: 12/03/25 10:30**

**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		12/09/25 07:13	12/09/25 19:37	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:37	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:37	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:37	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:37	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:37	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:37	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:37	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:37	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:37	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:37	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:37	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:37	1

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# Client Sample Results

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

Job ID: 380-185831-1  
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells  
P1/P2, Aiea Wells Pumps 1&2

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

**Lab Sample ID: 380-185831-5**

Date Collected: 12/01/25 10:27

Matrix: Water

Date Received: 12/03/25 10:30

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:37	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:37	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:37	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:37	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:37	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:37	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:37	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:37	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:37	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:37	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:37	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:37	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	84		50 - 200	12/09/25 07:13	12/09/25 19:37	1
13C6 PFDA	93		50 - 200	12/09/25 07:13	12/09/25 19:37	1
13C5 PFHxA	92		50 - 200	12/09/25 07:13	12/09/25 19:37	1
13C4 PFHpA	94		50 - 200	12/09/25 07:13	12/09/25 19:37	1
13C8 PFOA	93		50 - 200	12/09/25 07:13	12/09/25 19:37	1
13C9 PFNA	94		50 - 200	12/09/25 07:13	12/09/25 19:37	1
13C7 PFUnA	92		50 - 200	12/09/25 07:13	12/09/25 19:37	1
13C2 PFDoA	92		50 - 200	12/09/25 07:13	12/09/25 19:37	1
13C4 PFBA	98		50 - 200	12/09/25 07:13	12/09/25 19:37	1
13C5 PFPeA	96		50 - 200	12/09/25 07:13	12/09/25 19:37	1
13C3 PFBS	116		50 - 200	12/09/25 07:13	12/09/25 19:37	1
13C3 PFHxS	115		50 - 200	12/09/25 07:13	12/09/25 19:37	1
13C8 PFOS	116		50 - 200	12/09/25 07:13	12/09/25 19:37	1
13C2-4:2-FTS	128		50 - 200	12/09/25 07:13	12/09/25 19:37	1
13C2-6:2-FTS	122		50 - 200	12/09/25 07:13	12/09/25 19:37	1
13C2-8:2-FTS	118		50 - 200	12/09/25 07:13	12/09/25 19:37	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		12/04/25 13:02	12/05/25 08:26	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:26	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:26	1
N-methylperfluorooctanesulfonamideacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:26	1
N-ethylperfluorooctanesulfonamideacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:26	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:26	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:26	1

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# Client Sample Results

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

Job ID: 380-185831-1  
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells  
P1/P2, Aiea Wells Pumps 1&2

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

**Lab Sample ID: 380-185831-5**

Date Collected: 12/01/25 10:27

Matrix: Water

Date Received: 12/03/25 10:30

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:26	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:26	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:26	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:26	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:26	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:26	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:26	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:26	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:26	1
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:26	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:26	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	103		70 - 130			12/04/25 13:02	12/05/25 08:26	1
13C2 PFHxA	106		70 - 130			12/04/25 13:02	12/05/25 08:26	1
13C2 PFDA	113		70 - 130			12/04/25 13:02	12/05/25 08:26	1
13C3-GenX	103		70 - 130			12/04/25 13:02	12/05/25 08:26	1

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

**Lab Sample ID: 380-185831-6**

Date Collected: 12/01/25 10:52

Matrix: Water

Date Received: 12/03/25 10:30

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:46	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:46	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:46	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:46	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:46	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:46	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:46	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:46	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:46	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:46	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:46	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:46	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:46	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:46	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:46	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:46	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:46	1

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# Client Sample Results

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

Job ID: 380-185831-1  
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells  
P1/P2, Aiea Wells Pumps 1&2

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

**Lab Sample ID: 380-185831-6**

**Date Collected: 12/01/25 10:52**

**Matrix: Water**

**Date Received: 12/03/25 10:30**

**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-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:46	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:46	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:46	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:46	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:46	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:46	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:46	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:46	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	86		50 - 200	12/09/25 07:13	12/09/25 19:46	1
13C6 PFDA	82		50 - 200	12/09/25 07:13	12/09/25 19:46	1
13C5 PFHxA	91		50 - 200	12/09/25 07:13	12/09/25 19:46	1
13C4 PFHpA	87		50 - 200	12/09/25 07:13	12/09/25 19:46	1
13C8 PFOA	88		50 - 200	12/09/25 07:13	12/09/25 19:46	1
13C9 PFNA	85		50 - 200	12/09/25 07:13	12/09/25 19:46	1
13C7 PFUnA	79		50 - 200	12/09/25 07:13	12/09/25 19:46	1
13C2 PFDoA	82		50 - 200	12/09/25 07:13	12/09/25 19:46	1
13C4 PFBA	97		50 - 200	12/09/25 07:13	12/09/25 19:46	1
13C5 PFPeA	94		50 - 200	12/09/25 07:13	12/09/25 19:46	1
13C3 PFBS	111		50 - 200	12/09/25 07:13	12/09/25 19:46	1
13C3 PFHxS	107		50 - 200	12/09/25 07:13	12/09/25 19:46	1
13C8 PFOS	113		50 - 200	12/09/25 07:13	12/09/25 19:46	1
13C2-4:2-FTS	121		50 - 200	12/09/25 07:13	12/09/25 19:46	1
13C2-6:2-FTS	122		50 - 200	12/09/25 07:13	12/09/25 19:46	1
13C2-8:2-FTS	116		50 - 200	12/09/25 07:13	12/09/25 19:46	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		12/04/25 13:02	12/05/25 08:35	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:35	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:35	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:35	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:35	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:35	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:35	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:35	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:35	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:35	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:35	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:35	1

Eurofins Eaton Analytical Pomona

# Client Sample Results

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

Job ID: 380-185831-1  
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells  
P1/P2, Aiea Wells Pumps 1&2

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

**Lab Sample ID: 380-185831-6**

**Date Collected: 12/01/25 10:52**

**Matrix: Water**

**Date Received: 12/03/25 10:30**

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:35	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:35	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:35	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:35	1
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:35	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:35	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	111		70 - 130			12/04/25 13:02	12/05/25 08:35	1
13C2 PFHxA	111		70 - 130			12/04/25 13:02	12/05/25 08:35	1
13C2 PFDA	113		70 - 130			12/04/25 13:02	12/05/25 08:35	1
13C3-GenX	107		70 - 130			12/04/25 13:02	12/05/25 08:35	1

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

**Lab Sample ID: 380-185831-7**

**Date Collected: 12/01/25 11:27**

**Matrix: Water**

**Date Received: 12/03/25 10:30**

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:56	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:56	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:56	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:56	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:56	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:56	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:56	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:56	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:56	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:56	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:56	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:56	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:56	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:56	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:56	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:56	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:56	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:56	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:56	1

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# Client Sample Results

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

Job ID: 380-185831-1  
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)**

**Lab Sample ID: 380-185831-7**

**Date Collected: 12/01/25 11:27**

**Matrix: Water**

**Date Received: 12/03/25 10:30**

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:56	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:56	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:56	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:56	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:56	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 19:56	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	102		50 - 200			12/09/25 07:13	12/09/25 19:56	1
13C6 PFDA	108		50 - 200			12/09/25 07:13	12/09/25 19:56	1
13C5 PFHxA	112		50 - 200			12/09/25 07:13	12/09/25 19:56	1
13C4 PFHpA	104		50 - 200			12/09/25 07:13	12/09/25 19:56	1
13C8 PFOA	109		50 - 200			12/09/25 07:13	12/09/25 19:56	1
13C9 PFNA	110		50 - 200			12/09/25 07:13	12/09/25 19:56	1
13C7 PFUnA	105		50 - 200			12/09/25 07:13	12/09/25 19:56	1
13C2 PFDoA	107		50 - 200			12/09/25 07:13	12/09/25 19:56	1
13C4 PFBA	111		50 - 200			12/09/25 07:13	12/09/25 19:56	1
13C5 PFPeA	112		50 - 200			12/09/25 07:13	12/09/25 19:56	1
13C3 PFBS	115		50 - 200			12/09/25 07:13	12/09/25 19:56	1
13C3 PFHxS	113		50 - 200			12/09/25 07:13	12/09/25 19:56	1
13C8 PFOS	118		50 - 200			12/09/25 07:13	12/09/25 19:56	1
13C2-4:2-FTS	124		50 - 200			12/09/25 07:13	12/09/25 19:56	1
13C2-6:2-FTS	131		50 - 200			12/09/25 07:13	12/09/25 19:56	1
13C2-8:2-FTS	120		50 - 200			12/09/25 07:13	12/09/25 19:56	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		12/04/25 13:02	12/05/25 08:45	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:45	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:45	1
N-methylperfluorooctanesulfonamide acetic acid (NMeFOSAA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:45	1
N-ethylperfluorooctanesulfonamide acetic acid (NEtFOSAA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:45	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:45	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:45	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:45	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:45	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:45	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:45	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:45	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:45	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:45	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:45	1

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# Client Sample Results

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

Job ID: 380-185831-1  
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)**

**Lab Sample ID: 380-185831-7**

Date Collected: 12/01/25 11:27

Matrix: Water

Date Received: 12/03/25 10:30

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:45	1
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:45	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 08:45	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	113		70 - 130			12/04/25 13:02	12/05/25 08:45	1
13C2 PFHxA	112		70 - 130			12/04/25 13:02	12/05/25 08:45	1
13C2 PFDA	112		70 - 130			12/04/25 13:02	12/05/25 08:45	1
13C3-GenX	111		70 - 130			12/04/25 13:02	12/05/25 08:45	1

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

**Lab Sample ID: 380-185831-8**

Date Collected: 12/01/25 11:53

Matrix: Water

Date Received: 12/03/25 10:30

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 20:05	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 20:05	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 20:05	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 20:05	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 20:05	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 20:05	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 20:05	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 20:05	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 20:05	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 20:05	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 20:05	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 20:05	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 20:05	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 20:05	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 20:05	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 20:05	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 20:05	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 20:05	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 20:05	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 20:05	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 20:05	1

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# Client Sample Results

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

Job ID: 380-185831-1  
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: 380-185831-8**

**Date Collected: 12/01/25 11:53**

**Matrix: Water**

**Date Received: 12/03/25 10:30**

**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		12/09/25 07:13	12/09/25 20:05	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 20:05	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 20:05	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		12/09/25 07:13	12/09/25 20:05	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	103		50 - 200			12/09/25 07:13	12/09/25 20:05	1
13C6 PFDA	107		50 - 200			12/09/25 07:13	12/09/25 20:05	1
13C5 PFHxA	106		50 - 200			12/09/25 07:13	12/09/25 20:05	1
13C4 PFHpA	106		50 - 200			12/09/25 07:13	12/09/25 20:05	1
13C8 PFOA	110		50 - 200			12/09/25 07:13	12/09/25 20:05	1
13C9 PFNA	111		50 - 200			12/09/25 07:13	12/09/25 20:05	1
13C7 PFUnA	107		50 - 200			12/09/25 07:13	12/09/25 20:05	1
13C2 PFDoA	105		50 - 200			12/09/25 07:13	12/09/25 20:05	1
13C4 PFBA	111		50 - 200			12/09/25 07:13	12/09/25 20:05	1
13C5 PFPeA	114		50 - 200			12/09/25 07:13	12/09/25 20:05	1
13C3 PFBS	118		50 - 200			12/09/25 07:13	12/09/25 20:05	1
13C3 PFHxS	109		50 - 200			12/09/25 07:13	12/09/25 20:05	1
13C8 PFOS	116		50 - 200			12/09/25 07:13	12/09/25 20:05	1
13C2-4:2-FTS	118		50 - 200			12/09/25 07:13	12/09/25 20:05	1
13C2-6:2-FTS	128		50 - 200			12/09/25 07:13	12/09/25 20:05	1
13C2-8:2-FTS	122		50 - 200			12/09/25 07:13	12/09/25 20:05	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		12/04/25 13:02	12/05/25 09:06	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 09:06	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 09:06	1
N-methylperfluorooctanesulfonamide acetic acid (NMeFOSAA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 09:06	1
N-ethylperfluorooctanesulfonamide acetic acid (NEtFOSAA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 09:06	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 09:06	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 09:06	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 09:06	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 09:06	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 09:06	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 09:06	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 09:06	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 09:06	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 09:06	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 09:06	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 09:06	1
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		12/04/25 13:02	12/05/25 09:06	1

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# Client Sample Results

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

Job ID: 380-185831-1  
 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: 380-185831-8**

**Date Collected: 12/01/25 11:53  
 Date Received: 12/03/25 10:30**

**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		12/04/25 13:02	12/05/25 09:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	102		70 - 130			12/04/25 13:02	12/05/25 09:06	1
13C2 PFHxA	113		70 - 130			12/04/25 13:02	12/05/25 09:06	1
13C2 PFDA	109		70 - 130			12/04/25 13:02	12/05/25 09:06	1
13C3-GenX	104		70 - 130			12/04/25 13:02	12/05/25 09:06	1



# Action Limit Summary

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

Job ID: 380-185831-1  
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: 380-185831-1**

## Compliance Check

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

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

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

**Lab Sample ID: 380-185831-2**

## Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL	RL	Method	Prep Type
				Limit			
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	2.4		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)	2.9		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)	2.9		ng/L	10	2.0	537.1	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	537.1	Total/NA

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

**Lab Sample ID: 380-185831-3**

## Compliance Check

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

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

Eurofins Eaton Analytical Pomona

# Action Limit Summary

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

Job ID: 380-185831-1  
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) (Continued)

Lab Sample ID: 380-185831-3

### Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL	RL	Method	Prep Type
				Limit			
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: 380-185831-4

### Compliance Check

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

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

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

Lab Sample ID: 380-185831-5

### Compliance Check

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

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

Eurofins Eaton Analytical Pomona

# Action Limit Summary

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

Job ID: 380-185831-1  
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells  
P1/P2, Aiea Wells Pumps 1&2

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

**Lab Sample ID: 380-185831-5**

## 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
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: 380-185831-6**

## 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 AIEA GULCH WELLS PUMP 1**  
**(331-201-TP071)**

**Lab Sample ID: 380-185831-7**

## 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

# Action Limit Summary

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

Job ID: 380-185831-1  
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: 380-185831-8**

## 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

# Surrogate Summary

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

Job ID: 380-185831-1  
 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: Water**

**Prep Type: Total/NA**

**Percent Surrogate Recovery (Acceptance Limits)**

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		d5NEFOS (70-130)	PFHxA (70-130)	PFDA (70-130)	GenX (70-130)
380-185830-B-1-A MS	Matrix Spike	107	115	115	110
380-185830-C-1-A MSD	Matrix Spike Duplicate	108	114	110	103
380-185831-1	MOANALUA WELLS (331-223-TP202)	105	113	111	106
380-185831-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	108	109	112	105
380-185831-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	106	111	112	106
380-185831-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	101	108	112	102
380-185831-5	FB MOANALUA WELLS (331-223-TP202)	103	106	113	103
380-185831-6	FB HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	111	111	113	107
380-185831-7	FB AIEA GULCH WELLS PUMP 1 (331-201-TP071)	113	112	112	111
380-185831-8	FB AIEA GULCH WELLS PUMP 2 (331-202-TP072)	102	113	109	104
LCS 380-190150/22-A	Lab Control Sample	106	106	106	99
MBL 380-190150/20-A	Method Blank	108	120	111	113
MRL 380-190150/21-A	Lab Control Sample	107	108	114	102

**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: 380-185831-1  
 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: 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)
380-185830-E-1-A MS	Matrix Spike	100	105	103	105	104	103	106	107
380-185830-F-1-A MSD	Matrix Spike Duplicate	104	107	107	104	108	105	109	109
380-185831-1	MOANALUA WELLS (331-223-TP202)	79	75	85	83	83	79	74	81
380-185831-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	101	101	105	104	104	104	99	100
380-185831-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	78	83	85	85	85	85	83	84
380-185831-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	67	83	77	76	80	82	84	84
380-185831-5	FB MOANALUA WELLS (331-223-TP202)	84	93	92	94	93	94	92	92
380-185831-6	FB HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	86	82	91	87	88	85	79	82
380-185831-7	FB AIEA GULCH WELLS PUMP 1 (331-201-TP071)	102	108	112	104	109	110	105	107
380-185831-8	FB AIEA GULCH WELLS PUMP 2 (331-202-TP072)	103	107	106	106	110	111	107	105
380-186535-B-1-A MS	Matrix Spike	105	105	103	104	107	104	102	103
380-186535-C-1-A MSD	Matrix Spike Duplicate	107	106	104	105	109	107	104	103
LCS 380-191151/22-A	Lab Control Sample	101	108	107	105	107	107	111	111
LCS 380-191801/22-A	Lab Control Sample	100	103	105	102	104	102	103	102
MBL 380-191151/20-A	Method Blank	93	102	101	99	100	101	103	102
MBL 380-191801/20-A	Method Blank	98	101	105	101	106	105	98	97
MRL 380-191151/21-A	Lab Control Sample	100	112	113	113	113	109	114	111
MRL 380-191801/21-A	Lab Control Sample	90	100	104	101	102	103	99	99

### 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)
380-185830-E-1-A MS	Matrix Spike	106	105	117	110	114	122	118	120
380-185830-F-1-A MSD	Matrix Spike Duplicate	108	108	119	112	117	125	122	125
380-185831-1	MOANALUA WELLS (331-223-TP202)	91	88	116	113	118	123	126	123
380-185831-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	106	108	110	109	108	115	117	103
380-185831-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	88	87	111	110	112	108	111	99
380-185831-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	80	80	107	109	112	118	120	112
380-185831-5	FB MOANALUA WELLS (331-223-TP202)	98	96	116	115	116	128	122	118
380-185831-6	FB HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	97	94	111	107	113	121	122	116
380-185831-7	FB AIEA GULCH WELLS PUMP 1 (331-201-TP071)	111	112	115	113	118	124	131	120
380-185831-8	FB AIEA GULCH WELLS PUMP 2 (331-202-TP072)	111	114	118	109	116	118	128	122
380-186535-B-1-A MS	Matrix Spike	108	111	107	109	112	104	113	105
380-186535-C-1-A MSD	Matrix Spike Duplicate	110	111	111	112	114	104	110	108
LCS 380-191151/22-A	Lab Control Sample	108	109	120	110	113	116	111	121
LCS 380-191801/22-A	Lab Control Sample	109	106	110	109	112	101	107	101
MBL 380-191151/20-A	Method Blank	101	101	111	107	112	120	114	117

# Isotope Dilution Summary

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

Job ID: 380-185831-1  
 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	PFBA (50-200)	PFPeA (50-200)	C3PFBS (50-200)	C3PFHS (50-200)	C8PFOS (50-200)	42FTS (50-200)	62FTS (50-200)	82FTS (50-200)
MBL 380-191801/20-A	Method Blank	107	106	108	111	111	103	109	103
MRL 380-191151/21-A	Lab Control Sample	114	114	121	118	117	129	119	129
MRL 380-191801/21-A	Lab Control Sample	105	106	107	110	114	110	112	103

#### Surrogate Legend

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

# QC Sample Results

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

Job ID: 380-185831-1  
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

**Lab Sample ID: MBL 380-191151/20-A**  
**Matrix: Water**  
**Analysis Batch: 191269**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 191151**

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		12/09/25 07:13	12/09/25 16:26	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		12/09/25 07:13	12/09/25 16:26	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		12/09/25 07:13	12/09/25 16:26	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		12/09/25 07:13	12/09/25 16:26	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		12/09/25 07:13	12/09/25 16:26	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		12/09/25 07:13	12/09/25 16:26	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		12/09/25 07:13	12/09/25 16:26	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		12/09/25 07:13	12/09/25 16:26	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		12/09/25 07:13	12/09/25 16:26	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		12/09/25 07:13	12/09/25 16:26	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		12/09/25 07:13	12/09/25 16:26	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		12/09/25 07:13	12/09/25 16:26	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		12/09/25 07:13	12/09/25 16:26	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		12/09/25 07:13	12/09/25 16:26	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		12/09/25 07:13	12/09/25 16:26	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		12/09/25 07:13	12/09/25 16:26	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		12/09/25 07:13	12/09/25 16:26	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		12/09/25 07:13	12/09/25 16:26	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		12/09/25 07:13	12/09/25 16:26	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		12/09/25 07:13	12/09/25 16:26	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		12/09/25 07:13	12/09/25 16:26	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		12/09/25 07:13	12/09/25 16:26	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		12/09/25 07:13	12/09/25 16:26	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		12/09/25 07:13	12/09/25 16:26	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		12/09/25 07:13	12/09/25 16:26	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	93		50 - 200	12/09/25 07:13	12/09/25 16:26	1
13C6 PFDA	102		50 - 200	12/09/25 07:13	12/09/25 16:26	1
13C5 PFHxA	101		50 - 200	12/09/25 07:13	12/09/25 16:26	1
13C4 PFHpA	99		50 - 200	12/09/25 07:13	12/09/25 16:26	1
13C8 PFOA	100		50 - 200	12/09/25 07:13	12/09/25 16:26	1
13C9 PFNA	101		50 - 200	12/09/25 07:13	12/09/25 16:26	1
13C7 PFUnA	103		50 - 200	12/09/25 07:13	12/09/25 16:26	1
13C2 PFDoA	102		50 - 200	12/09/25 07:13	12/09/25 16:26	1
13C4 PFBA	101		50 - 200	12/09/25 07:13	12/09/25 16:26	1
13C5 PFPeA	101		50 - 200	12/09/25 07:13	12/09/25 16:26	1
13C3 PFBS	111		50 - 200	12/09/25 07:13	12/09/25 16:26	1

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# QC Sample Results

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

Job ID: 380-185831-1  
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)

**Lab Sample ID: MBL 380-191151/20-A**  
**Matrix: Water**  
**Analysis Batch: 191269**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 191151**

Isotope Dilution	MBL MBL		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C3 PFHxS	107		50 - 200	12/09/25 07:13	12/09/25 16:26	1
13C8 PFOS	112		50 - 200	12/09/25 07:13	12/09/25 16:26	1
13C2-4:2-FTS	120		50 - 200	12/09/25 07:13	12/09/25 16:26	1
13C2-6:2-FTS	114		50 - 200	12/09/25 07:13	12/09/25 16:26	1
13C2-8:2-FTS	117		50 - 200	12/09/25 07:13	12/09/25 16:26	1

**Lab Sample ID: LCS 380-191151/22-A**  
**Matrix: Water**  
**Analysis Batch: 191269**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 191151**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec
							Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	60.4	58.1		ng/L		96	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	60.4	57.9		ng/L		96	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.4	57.6		ng/L		95	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.4	55.8		ng/L		92	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.4	52.4		ng/L		87	70 - 130
Perfluorodecanoic acid (PFDA)	60.4	56.1		ng/L		93	70 - 130
Perfluorododecanoic acid (PFDoA)	60.4	56.4		ng/L		93	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.4	58.2		ng/L		96	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.4	55.7		ng/L		92	70 - 130
Perfluorohexanoic acid (PFHxA)	60.4	57.6		ng/L		95	70 - 130
Perfluorononanoic acid (PFNA)	60.4	56.7		ng/L		94	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.4	54.3		ng/L		90	70 - 130
Perfluorooctanoic acid (PFOA)	60.4	56.3		ng/L		93	70 - 130
Perfluoroundecanoic acid (PFUnA)	60.4	55.5		ng/L		92	70 - 130
Perfluorobutanoic acid (PFBA)	60.4	54.9		ng/L		91	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.4	57.0		ng/L		94	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.4	57.4		ng/L		95	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.4	58.0		ng/L		96	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	60.4	53.8		ng/L		89	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	60.4	56.2		ng/L		93	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.4	56.3		ng/L		93	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.4	55.4		ng/L		92	70 - 130
Perfluoropentanoic acid (PFPeA)	60.4	56.9		ng/L		94	70 - 130

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-185831-1  
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)

Lab Sample ID: LCS 380-191151/22-A  
Matrix: Water  
Analysis Batch: 191269

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 191151

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanesulfonic acid (PFHpS)	60.4	56.0		ng/L		93	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	60.4	55.2		ng/L		92	70 - 130

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C3 HFPO-DA	101		50 - 200
13C6 PFDA	108		50 - 200
13C5 PFHxA	107		50 - 200
13C4 PFHpA	105		50 - 200
13C8 PFOA	107		50 - 200
13C9 PFNA	107		50 - 200
13C7 PFUnA	111		50 - 200
13C2 PFDoA	111		50 - 200
13C4 PFBA	108		50 - 200
13C5 PFPeA	109		50 - 200
13C3 PFBS	120		50 - 200
13C3 PFHxS	110		50 - 200
13C8 PFOS	113		50 - 200
13C2-4:2-FTS	116		50 - 200
13C2-6:2-FTS	111		50 - 200
13C2-8:2-FTS	121		50 - 200

Lab Sample ID: MRL 380-191151/21-A  
Matrix: Water  
Analysis Batch: 191269

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 191151

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.78	J	ng/L		88	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	1.80	J	ng/L		89	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	1.76	J	ng/L		87	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	1.74	J	ng/L		86	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	1.77	J	ng/L		88	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	1.91	J	ng/L		95	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	1.89	J	ng/L		94	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	1.96	J	ng/L		97	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	1.89	J	ng/L		94	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	1.97	J	ng/L		98	50 - 150
Perfluorononanoic acid (PFNA)	2.01	1.87	J	ng/L		93	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	1.94	J	ng/L		97	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	1.95	J	ng/L		97	50 - 150

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-185831-1  
 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)

**Lab Sample ID: MRL 380-191151/21-A**  
**Matrix: Water**  
**Analysis Batch: 191269**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 191151**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	2.01	1.82	J	ng/L		90	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	1.85	J	ng/L		92	50 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	1.87	J	ng/L		93	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	2.02	J	ng/L		100	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	1.97	J	ng/L		98	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	1.72	J	ng/L		86	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.01	1.89	J	ng/L		94	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	1.84	J	ng/L		92	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	1.77	J	ng/L		88	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	1.97	J	ng/L		98	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.01	1.70	J	ng/L		84	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	1.87	J	ng/L		93	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	Limits
13C3 HFPO-DA	100		50 - 200
13C6 PFDA	112		50 - 200
13C5 PFHxA	113		50 - 200
13C4 PFHpA	113		50 - 200
13C8 PFOA	113		50 - 200
13C9 PFNA	109		50 - 200
13C7 PFUnA	114		50 - 200
13C2 PFDoA	111		50 - 200
13C4 PFBA	114		50 - 200
13C5 PFPeA	114		50 - 200
13C3 PFBS	121		50 - 200
13C3 PFHxS	118		50 - 200
13C8 PFOS	117		50 - 200
13C2-4:2-FTS	129		50 - 200
13C2-6:2-FTS	119		50 - 200
13C2-8:2-FTS	129		50 - 200

**Lab Sample ID: 380-185830-E-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 191269**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 191151**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.4	59.6		ng/L		99	70 - 130



# QC Sample Results

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

Job ID: 380-185831-1  
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)

**Lab Sample ID: 380-185830-E-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 191269**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 191151**

<i>Isotope Dilution</i>	<i>MS %Recovery</i>	<i>MS Qualifier</i>	<i>Limits</i>
13C4 PFBA	106		50 - 200
13C5 PFPeA	105		50 - 200
13C3 PFBS	117		50 - 200
13C3 PFHxS	110		50 - 200
13C8 PFOS	114		50 - 200
13C2-4:2-FTS	122		50 - 200
13C2-6:2-FTS	118		50 - 200
13C2-8:2-FTS	120		50 - 200

**Lab Sample ID: 380-185830-F-1-A MSD**  
**Matrix: Water**  
**Analysis Batch: 191269**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 191151**

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MSD Result</i>	<i>MSD Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>	<i>RPD</i>	<i>RPD Limit</i>
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.5	59.8		ng/L		99	70 - 130	0	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.5	59.0		ng/L		98	70 - 130	0	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.5	58.1		ng/L		96	70 - 130	1	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.5	58.5		ng/L		97	70 - 130	7	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.5	58.9		ng/L		95	70 - 130	1	30
Perfluorodecanoic acid (PFDA)	<2.0		60.5	57.6		ng/L		95	70 - 130	1	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.5	58.4		ng/L		97	70 - 130	1	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.5	60.9		ng/L		99	70 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.5	58.5		ng/L		95	70 - 130	1	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.5	60.3		ng/L		97	70 - 130	4	30
Perfluorononanoic acid (PFNA)	<2.0		60.5	58.9		ng/L		97	70 - 130	2	30
Perfluorooctanesulfonic acid (PFOS)	2.2		60.5	57.1		ng/L		91	70 - 130	1	30
Perfluorooctanoic acid (PFOA)	<2.0		60.5	58.6		ng/L		95	70 - 130	3	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.5	57.5		ng/L		95	70 - 130	2	30
Perfluorobutanoic acid (PFBA)	<2.0		60.5	59.0		ng/L		96	70 - 130	1	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.5	58.2		ng/L		96	70 - 130	5	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.5	60.6		ng/L		100	70 - 130	2	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.5	58.4		ng/L		97	70 - 130	1	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.5	58.3		ng/L		96	70 - 130	2	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.5	61.4		ng/L		101	70 - 130	2	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.5	59.3		ng/L		98	70 - 130	1	30

# QC Sample Results

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

Job ID: 380-185831-1  
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)

**Lab Sample ID: 380-185830-F-1-A MSD**  
**Matrix: Water**  
**Analysis Batch: 191269**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 191151**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.5	58.1		ng/L		96	70 - 130	2	30
Perfluoropentanoic acid (PFPeA)	<2.0		60.5	61.2		ng/L		98	70 - 130	5	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.5	58.1		ng/L		96	70 - 130	0	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.5	59.5		ng/L		98	70 - 130	2	30
		<b>MSD</b>	<b>MSD</b>								
<b>Isotope Dilution</b>		<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>							
13C3 HFPO-DA		104		50 - 200							
13C6 PFDA		107		50 - 200							
13C5 PFHxA		107		50 - 200							
13C4 PFHpA		104		50 - 200							
13C8 PFOA		108		50 - 200							
13C9 PFNA		105		50 - 200							
13C7 PFUnA		109		50 - 200							
13C2 PFDoA		109		50 - 200							
13C4 PFBA		108		50 - 200							
13C5 PFPeA		108		50 - 200							
13C3 PFBS		119		50 - 200							
13C3 PFHxS		112		50 - 200							
13C8 PFOS		117		50 - 200							
13C2-4:2-FTS		125		50 - 200							
13C2-6:2-FTS		122		50 - 200							
13C2-8:2-FTS		125		50 - 200							

**Lab Sample ID: MBL 380-191801/20-A**  
**Matrix: Water**  
**Analysis Batch: 192084**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 191801**

Analyte	MBL	MBL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		12/11/25 13:59	12/12/25 12:10	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		12/11/25 13:59	12/12/25 12:10	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		12/11/25 13:59	12/12/25 12:10	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		12/11/25 13:59	12/12/25 12:10	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		12/11/25 13:59	12/12/25 12:10	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		12/11/25 13:59	12/12/25 12:10	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		12/11/25 13:59	12/12/25 12:10	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		12/11/25 13:59	12/12/25 12:10	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		12/11/25 13:59	12/12/25 12:10	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		12/11/25 13:59	12/12/25 12:10	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		12/11/25 13:59	12/12/25 12:10	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		12/11/25 13:59	12/12/25 12:10	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		12/11/25 13:59	12/12/25 12:10	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		12/11/25 13:59	12/12/25 12:10	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		12/11/25 13:59	12/12/25 12:10	1

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-185831-1  
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)

**Lab Sample ID: MBL 380-191801/20-A**  
**Matrix: Water**  
**Analysis Batch: 192084**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 191801**

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		12/11/25 13:59	12/12/25 12:10	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		12/11/25 13:59	12/12/25 12:10	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	0.48		2.0	ng/L		12/11/25 13:59	12/12/25 12:10	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		12/11/25 13:59	12/12/25 12:10	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<0.25		2.0	ng/L		12/11/25 13:59	12/12/25 12:10	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		12/11/25 13:59	12/12/25 12:10	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		12/11/25 13:59	12/12/25 12:10	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		12/11/25 13:59	12/12/25 12:10	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		12/11/25 13:59	12/12/25 12:10	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		12/11/25 13:59	12/12/25 12:10	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	98		50 - 200	12/11/25 13:59	12/12/25 12:10	1
13C6 PFDA	101		50 - 200	12/11/25 13:59	12/12/25 12:10	1
13C5 PFHxA	105		50 - 200	12/11/25 13:59	12/12/25 12:10	1
13C4 PFHpA	101		50 - 200	12/11/25 13:59	12/12/25 12:10	1
13C8 PFOA	106		50 - 200	12/11/25 13:59	12/12/25 12:10	1
13C9 PFNA	105		50 - 200	12/11/25 13:59	12/12/25 12:10	1
13C7 PFUnA	98		50 - 200	12/11/25 13:59	12/12/25 12:10	1
13C2 PFDoA	97		50 - 200	12/11/25 13:59	12/12/25 12:10	1
13C4 PFBA	107		50 - 200	12/11/25 13:59	12/12/25 12:10	1
13C5 PFPeA	106		50 - 200	12/11/25 13:59	12/12/25 12:10	1
13C3 PFBS	108		50 - 200	12/11/25 13:59	12/12/25 12:10	1
13C3 PFHxS	111		50 - 200	12/11/25 13:59	12/12/25 12:10	1
13C8 PFOS	111		50 - 200	12/11/25 13:59	12/12/25 12:10	1
13C2-4:2-FTS	103		50 - 200	12/11/25 13:59	12/12/25 12:10	1
13C2-6:2-FTS	109		50 - 200	12/11/25 13:59	12/12/25 12:10	1
13C2-8:2-FTS	103		50 - 200	12/11/25 13:59	12/12/25 12:10	1

**Lab Sample ID: LCS 380-191801/22-A**  
**Matrix: Water**  
**Analysis Batch: 192084**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 191801**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	120	114		ng/L		95	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	120	114		ng/L		95	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	120	117		ng/L		97	70 - 130

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-185831-1  
 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)

**Lab Sample ID: LCS 380-191801/22-A**  
**Matrix: Water**  
**Analysis Batch: 192084**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 191801**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	120	119		ng/L		99	70 - 130
Perfluorobutanesulfonic acid (PFBS)	120	110		ng/L		92	70 - 130
Perfluorodecanoic acid (PFDA)	120	113		ng/L		94	70 - 130
Perfluorododecanoic acid (PFDoA)	120	116		ng/L		96	70 - 130
Perfluoroheptanoic acid (PFHpA)	120	115		ng/L		96	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	120	112		ng/L		93	70 - 130
Perfluorohexanoic acid (PFHxA)	120	116		ng/L		96	70 - 130
Perfluorononanoic acid (PFNA)	120	117		ng/L		97	70 - 130
Perfluorooctanesulfonic acid (PFOS)	120	112		ng/L		93	70 - 130
Perfluorooctanoic acid (PFOA)	120	116		ng/L		96	70 - 130
Perfluoroundecanoic acid (PFUnA)	120	111		ng/L		92	70 - 130
Perfluorobutanoic acid (PFBA)	120	115		ng/L		95	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	120	113		ng/L		94	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	120	116		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	120	114		ng/L		95	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	120	120		ng/L		99	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	120	115		ng/L		95	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	120	116		ng/L		96	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	120	108		ng/L		89	70 - 130
Perfluoropentanoic acid (PFPeA)	120	119		ng/L		99	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	120	115		ng/L		95	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	120	113		ng/L		93	70 - 130

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	100		50 - 200
13C6 PFDA	103		50 - 200
13C5 PFHxA	105		50 - 200
13C4 PFHpA	102		50 - 200
13C8 PFOA	104		50 - 200
13C9 PFNA	102		50 - 200
13C7 PFUnA	103		50 - 200
13C2 PFDoA	102		50 - 200
13C4 PFBA	109		50 - 200
13C5 PFPeA	106		50 - 200
13C3 PFBS	110		50 - 200
13C3 PFHxS	109		50 - 200

# QC Sample Results

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

Job ID: 380-185831-1  
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)

**Lab Sample ID: LCS 380-191801/22-A**  
**Matrix: Water**  
**Analysis Batch: 192084**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 191801**

Isotope Dilution	LCS LCS		Limits
	%Recovery	Qualifier	
13C8 PFOS	112		50 - 200
13C2-4:2-FTS	101		50 - 200
13C2-6:2-FTS	107		50 - 200
13C2-8:2-FTS	101		50 - 200

**Lab Sample ID: MRL 380-191801/21-A**  
**Matrix: Water**  
**Analysis Batch: 192084**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 191801**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec
							Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.89	J	ng/L		94	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	1.94	J	ng/L		96	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	2.00	J	ng/L		100	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.11	J	ng/L		105	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.04	J	ng/L		102	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	1.99	J	ng/L		99	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.03	J	ng/L		101	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.04	J	ng/L		102	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	1.95	J	ng/L		97	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.00	J	ng/L		100	50 - 150
Perfluorononanoic acid (PFNA)	2.01	1.98	J	ng/L		98	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.01	J	ng/L		100	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.08	J	ng/L		103	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	1.96	J	ng/L		98	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	2.07	J	ng/L		103	50 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	1.96	J	ng/L		98	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	2.14	J	ng/L		106	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	2.30	J	ng/L		115	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	2.04	J	ng/L		102	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	2.01	2.01	J	ng/L		100	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	2.04	J	ng/L		102	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	1.77	J	ng/L		88	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	2.12	J	ng/L		106	50 - 150

# QC Sample Results

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

Job ID: 380-185831-1  
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)

Lab Sample ID: MRL 380-191801/21-A  
Matrix: Water  
Analysis Batch: 192084

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 191801

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroheptanesulfonic acid (PFHpS)	2.01	1.88	J	ng/L		94	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	1.89	J	ng/L		94	50 - 150
Isotope Dilution	MRL %Recovery	MRL Qualifier	Limits				
13C3 HFPO-DA	90		50 - 200				
13C6 PFDA	100		50 - 200				
13C5 PFHxA	104		50 - 200				
13C4 PFHpA	101		50 - 200				
13C8 PFOA	102		50 - 200				
13C9 PFNA	103		50 - 200				
13C7 PFUnA	99		50 - 200				
13C2 PFDoA	99		50 - 200				
13C4 PFBA	105		50 - 200				
13C5 PFPeA	106		50 - 200				
13C3 PFBS	107		50 - 200				
13C3 PFHxS	110		50 - 200				
13C8 PFOS	114		50 - 200				
13C2-4:2-FTS	110		50 - 200				
13C2-6:2-FTS	112		50 - 200				
13C2-8:2-FTS	103		50 - 200				

Lab Sample ID: 380-186535-B-1-A MS  
Matrix: Water  
Analysis Batch: 192084

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 191801

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.2	57.8		ng/L		96	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.2	59.7		ng/L		99	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.2	60.2		ng/L		100	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.2	60.3		ng/L		100	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.2	60.1		ng/L		97	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.2	57.0		ng/L		95	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.2	58.5		ng/L		97	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.2	60.3		ng/L		99	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	3.0		60.2	59.6		ng/L		94	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		60.2	61.2		ng/L		99	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.2	59.6		ng/L		99	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.2	57.2		ng/L		93	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.2	59.5		ng/L		98	70 - 130

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-185831-1  
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)

**Lab Sample ID: 380-186535-B-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 192084**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 191801**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	%Rec	
				Result	Qualifier				Limits	
Perfluoroundecanoic acid (PFUnA)	<2.0		60.2	56.8		ng/L		94	70 - 130	
Perfluorobutanoic acid (PFBA)	<2.0		60.2	57.9		ng/L		95	70 - 130	
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.2	59.9		ng/L		99	70 - 130	
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.2	58.5		ng/L		97	70 - 130	
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.2	57.9		ng/L		96	70 - 130	
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.2	59.8		ng/L		99	70 - 130	
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.2	62.2		ng/L		103	70 - 130	
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.2	59.6		ng/L		99	70 - 130	
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.2	53.0		ng/L		88	70 - 130	
Perfluoropentanoic acid (PFPeA)	2.4		60.2	61.3		ng/L		98	70 - 130	
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.2	57.7		ng/L		96	70 - 130	
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.2	57.9		ng/L		96	70 - 130	

Isotope Dilution	MS MS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	105		50 - 200
13C6 PFDA	105		50 - 200
13C5 PFHxA	103		50 - 200
13C4 PFHpA	104		50 - 200
13C8 PFOA	107		50 - 200
13C9 PFNA	104		50 - 200
13C7 PFUnA	102		50 - 200
13C2 PFDoA	103		50 - 200
13C4 PFBA	108		50 - 200
13C5 PFPeA	111		50 - 200
13C3 PFBS	107		50 - 200
13C3 PFHxS	109		50 - 200
13C8 PFOS	112		50 - 200
13C2-4:2-FTS	104		50 - 200
13C2-6:2-FTS	113		50 - 200
13C2-8:2-FTS	105		50 - 200

**Lab Sample ID: 380-186535-C-1-A MSD**  
**Matrix: Water**  
**Analysis Batch: 192084**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 191801**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	%Rec		RPD	Limit
				Result	Qualifier				Limits			
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.4	59.2		ng/L		98	70 - 130		2	30

# QC Sample Results

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

Job ID: 380-185831-1  
 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)

**Lab Sample ID: 380-186535-C-1-A MSD**  
**Matrix: Water**  
**Analysis Batch: 192084**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 191801**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
9-Chlorohexadecafluoro-3-oxanone-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.4	60.3		ng/L		100	70 - 130	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.4	61.4		ng/L		102	70 - 130	2	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.4	60.5		ng/L		100	70 - 130	0	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.4	58.8		ng/L		95	70 - 130	2	30
Perfluorodecanoic acid (PFDA)	<2.0		60.4	58.8		ng/L		97	70 - 130	3	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.4	60.4		ng/L		100	70 - 130	3	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.4	61.0		ng/L		100	70 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	3.0		60.4	60.1		ng/L		95	70 - 130	1	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.4	61.3		ng/L		99	70 - 130	0	30
Perfluorononanoic acid (PFNA)	<2.0		60.4	59.4		ng/L		98	70 - 130	0	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.4	58.3		ng/L		95	70 - 130	2	30
Perfluorooctanoic acid (PFOA)	<2.0		60.4	58.6		ng/L		96	70 - 130	1	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.4	58.0		ng/L		96	70 - 130	2	30
Perfluorobutanoic acid (PFBA)	<2.0		60.4	58.9		ng/L		96	70 - 130	2	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.4	57.7		ng/L		96	70 - 130	4	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.4	59.5		ng/L		99	70 - 130	2	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.4	62.3		ng/L		103	70 - 130	7	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.4	56.7		ng/L		94	70 - 130	5	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		60.4	62.5		ng/L		104	70 - 130	0	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.4	60.9		ng/L		101	70 - 130	2	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.4	56.5		ng/L		94	70 - 130	6	30
Perfluoropentanoic acid (PFPeA)	2.4		60.4	63.9		ng/L		102	70 - 130	4	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.4	58.7		ng/L		97	70 - 130	2	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.4	58.3		ng/L		97	70 - 130	1	30

Isotope Dilution	MSD	MSD	Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	107		50 - 200
13C6 PFDA	106		50 - 200
13C5 PFHxA	104		50 - 200
13C4 PFHpA	105		50 - 200
13C8 PFOA	109		50 - 200
13C9 PFNA	107		50 - 200
13C7 PFUnA	104		50 - 200
13C2 PFDoA	103		50 - 200

# QC Sample Results

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

Job ID: 380-185831-1  
 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)

**Lab Sample ID: 380-186535-C-1-A MSD**  
**Matrix: Water**  
**Analysis Batch: 192084**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 191801**

<i>Isotope Dilution</i>	<i>MSD %Recovery</i>	<i>MSD Qualifier</i>	<i>Limits</i>
13C4 PFBA	110		50 - 200
13C5 PFPeA	111		50 - 200
13C3 PFBS	111		50 - 200
13C3 PFHxS	112		50 - 200
13C8 PFOS	114		50 - 200
13C2-4:2-FTS	104		50 - 200
13C2-6:2-FTS	110		50 - 200
13C2-8:2-FTS	108		50 - 200

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

**Lab Sample ID: MBL 380-190150/20-A**  
**Matrix: Water**  
**Analysis Batch: 190361**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 190150**

<i>Analyte</i>	<i>MBL Result</i>	<i>MBL Qualifier</i>	<i>RL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		12/04/25 13:02	12/05/25 06:28	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		12/04/25 13:02	12/05/25 06:28	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		12/04/25 13:02	12/05/25 06:28	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		12/04/25 13:02	12/05/25 06:28	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		12/04/25 13:02	12/05/25 06:28	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		12/04/25 13:02	12/05/25 06:28	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		12/04/25 13:02	12/05/25 06:28	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		12/04/25 13:02	12/05/25 06:28	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		12/04/25 13:02	12/05/25 06:28	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		12/04/25 13:02	12/05/25 06:28	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		12/04/25 13:02	12/05/25 06:28	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		12/04/25 13:02	12/05/25 06:28	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		12/04/25 13:02	12/05/25 06:28	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		12/04/25 13:02	12/05/25 06:28	1
Perfluorotridecanoic acid (PFTrDA)	<0.36		2.0	ng/L		12/04/25 13:02	12/05/25 06:28	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		12/04/25 13:02	12/05/25 06:28	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		12/04/25 13:02	12/05/25 06:28	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		12/04/25 13:02	12/05/25 06:28	1

<i>Surrogate</i>	<i>MBL %Recovery</i>	<i>MBL Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
d5-NEtFOSAA	108		70 - 130	12/04/25 13:02	12/05/25 06:28	1
13C2 PFHxA	120		70 - 130	12/04/25 13:02	12/05/25 06:28	1
13C2 PFDA	111		70 - 130	12/04/25 13:02	12/05/25 06:28	1
13C3-GenX	113		70 - 130	12/04/25 13:02	12/05/25 06:28	1

# QC Sample Results

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

Job ID: 380-185831-1  
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells  
P1/P2, Aiea Wells Pumps 1&2

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

**Lab Sample ID: LCS 380-190150/22-A**  
**Matrix: Water**  
**Analysis Batch: 190361**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 190150**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	25.2	22.9		ng/L		91	70 - 130
Perfluorooctanesulfonic acid (PFOS)	25.2	25.4		ng/L		101	70 - 130
Perfluoroundecanoic acid (PFUnA)	25.2	24.6		ng/L		98	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.2	23.9		ng/L		95	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.2	23.5		ng/L		93	70 - 130
Perfluorohexanoic acid (PFHxA)	25.2	23.7		ng/L		94	70 - 130
Perfluorododecanoic acid (PFDoA)	25.2	24.2		ng/L		96	70 - 130
Perfluorooctanoic acid (PFOA)	25.2	24.3		ng/L		97	70 - 130
Perfluorodecanoic acid (PFDA)	25.2	24.3		ng/L		97	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	25.2	25.0		ng/L		99	70 - 130
Perfluorobutanesulfonic acid (PFBS)	25.2	25.3		ng/L		100	70 - 130
Perfluoroheptanoic acid (PFHpA)	25.2	24.2		ng/L		96	70 - 130
Perfluorononanoic acid (PFNA)	25.2	24.7		ng/L		98	70 - 130
Perfluorotetradecanoic acid (PFTA)	25.2	22.8		ng/L		90	70 - 130
Perfluorotridecanoic acid (PFTrDA)	25.2	25.1		ng/L		100	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	25.2	25.4		ng/L		101	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	25.2	24.9		ng/L		99	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	25.2	23.6		ng/L		94	70 - 130

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

**Lab Sample ID: MRL 380-190150/21-A**  
**Matrix: Water**  
**Analysis Batch: 190361**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 190150**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.10	J	ng/L		105	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.46	J	ng/L		122	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.39	J	ng/L		119	50 - 150

Eurofins Eaton Analytical Pomona

# QC Sample Results

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

Job ID: 380-185831-1  
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells  
P1/P2, Aiea Wells Pumps 1&2

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

**Lab Sample ID: MRL 380-190150/21-A**  
**Matrix: Water**  
**Analysis Batch: 190361**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 190150**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.01	2.14	J	ng/L		107	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.01	2.19	J	ng/L		109	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.34	J	ng/L		117	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.19	J	ng/L		109	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.24	J	ng/L		111	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.32	J	ng/L		115	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.37	J	ng/L		118	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.27	J	ng/L		113	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.15	J	ng/L		107	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.27	J	ng/L		113	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.01	2.00	J	ng/L		99	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.01	2.23	J	ng/L		111	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	2.23	J	ng/L		111	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	2.19	J	ng/L		109	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	2.20	J	ng/L		110	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	MRL Limits
d5-NEtFOSAA	107		70 - 130
13C2 PFHxA	108		70 - 130
13C2 PFDA	114		70 - 130
13C3-GenX	102		70 - 130

**Lab Sample ID: 380-185830-B-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 190361**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 190150**

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	25.7		ng/L		102	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		25.2	29.3		ng/L		109	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		25.2	26.9		ng/L		107	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.2	25.8		ng/L		102	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		25.2	26.6		ng/L		106	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		25.2	28.3		ng/L		105	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		25.2	26.1		ng/L		104	70 - 130

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# QC Sample Results

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

Job ID: 380-185831-1  
 SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells  
 P1/P2, Aiea Wells Pumps 1&2

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

**Lab Sample ID: 380-185830-C-1-A MSD**

**Matrix: Water**

**Analysis Batch: 190361**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

**Prep Batch: 190150**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	Limit	
	Result	Qualifier	Added	Result	Qualifier							Limits
Perfluoroheptanoic acid (PFHpA)	<2.0		25.2	26.7		ng/L		102	70 - 130	3	30	
Perfluorononanoic acid (PFNA)	<2.0		25.2	26.7		ng/L		106	70 - 130	1	30	
Perfluorotetradecanoic acid (PFTA)	<2.0		25.2	25.2		ng/L		100	70 - 130	5	30	
Perfluorotridecanoic acid (PFTTrDA)	<2.0		25.2	27.4		ng/L		109	70 - 130	1	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	26.6		ng/L		106	70 - 130	2	30	
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		25.2	25.3		ng/L		100	70 - 130	7	30	
Surrogate	MSD	MSD										
	%Recovery	Qualifier	Limits									
d5-NEtFOSAA	108		70 - 130									
13C2 PFHxA	114		70 - 130									
13C2 PFDA	110		70 - 130									
13C3-GenX	103		70 - 130									

# QC Association Summary

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

Job ID: 380-185831-1  
SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells  
P1/P2, Aiea Wells Pumps 1&2

## LCMS

### Prep Batch: 190150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-185831-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Water	537.1 DW	
380-185831-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Water	537.1 DW	
380-185831-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	537.1 DW	
380-185831-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	537.1 DW	
380-185831-5	FB MOANALUA WELLS (331-223-TP202)	Total/NA	Water	537.1 DW	
380-185831-6	FB HALAWA WELLS UNITS 1 & 2 (331-206-TP01)	Total/NA	Water	537.1 DW	
380-185831-7	FB AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	537.1 DW	
380-185831-8	FB AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	537.1 DW	
MBL 380-190150/20-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-190150/22-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-190150/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-185830-B-1-A MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-185830-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

### Analysis Batch: 190361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-185831-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Water	537.1	190150
380-185831-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP01)	Total/NA	Water	537.1	190150
380-185831-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	537.1	190150
380-185831-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	537.1	190150
380-185831-5	FB MOANALUA WELLS (331-223-TP202)	Total/NA	Water	537.1	190150
380-185831-6	FB HALAWA WELLS UNITS 1 & 2 (331-206-TP01)	Total/NA	Water	537.1	190150
380-185831-7	FB AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	537.1	190150
380-185831-8	FB AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	537.1	190150
MBL 380-190150/20-A	Method Blank	Total/NA	Water	537.1	190150
LCS 380-190150/22-A	Lab Control Sample	Total/NA	Water	537.1	190150
MRL 380-190150/21-A	Lab Control Sample	Total/NA	Water	537.1	190150
380-185830-B-1-A MS	Matrix Spike	Total/NA	Water	537.1	190150
380-185830-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1	190150

### Prep Batch: 191151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-185831-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Water	533	
380-185831-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	533	
380-185831-5	FB MOANALUA WELLS (331-223-TP202)	Total/NA	Water	533	
380-185831-6	FB HALAWA WELLS UNITS 1 & 2 (331-206-TP01)	Total/NA	Water	533	
380-185831-7	FB AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	533	
380-185831-8	FB AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	533	
MBL 380-191151/20-A	Method Blank	Total/NA	Water	533	
LCS 380-191151/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-191151/21-A	Lab Control Sample	Total/NA	Water	533	
380-185830-E-1-A MS	Matrix Spike	Total/NA	Water	533	
380-185830-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

### Analysis Batch: 191269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-185831-1	MOANALUA WELLS (331-223-TP202)	Total/NA	Water	533	191151
380-185831-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Total/NA	Water	533	191151
380-185831-5	FB MOANALUA WELLS (331-223-TP202)	Total/NA	Water	533	191151
380-185831-6	FB HALAWA WELLS UNITS 1 & 2 (331-206-TP01)	Total/NA	Water	533	191151

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# QC Association Summary

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

Job ID: 380-185831-1  
 SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells  
 P1/P2, Aiea Wells Pumps 1&2

## LCMS (Continued)

### Analysis Batch: 191269 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-185831-7	FB AIEA GULCH WELLS PUMP 1 (331-201-TP0	Total/NA	Water	533	191151
380-185831-8	FB AIEA GULCH WELLS PUMP 2 (331-202-TP0	Total/NA	Water	533	191151
MBL 380-191151/20-A	Method Blank	Total/NA	Water	533	191151
LCS 380-191151/22-A	Lab Control Sample	Total/NA	Water	533	191151
MRL 380-191151/21-A	Lab Control Sample	Total/NA	Water	533	191151
380-185830-E-1-A MS	Matrix Spike	Total/NA	Water	533	191151
380-185830-F-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	191151

### Prep Batch: 191801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-185831-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP0	Total/NA	Water	533	191801
380-185831-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	533	191801
MBL 380-191801/20-A	Method Blank	Total/NA	Water	533	191801
LCS 380-191801/22-A	Lab Control Sample	Total/NA	Water	533	191801
MRL 380-191801/21-A	Lab Control Sample	Total/NA	Water	533	191801
380-186535-B-1-A MS	Matrix Spike	Total/NA	Water	533	191801
380-186535-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	191801

### Analysis Batch: 192084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-185831-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP0	Total/NA	Water	533	191801
380-185831-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Total/NA	Water	533	191801
MBL 380-191801/20-A	Method Blank	Total/NA	Water	533	191801
LCS 380-191801/22-A	Lab Control Sample	Total/NA	Water	533	191801
MRL 380-191801/21-A	Lab Control Sample	Total/NA	Water	533	191801
380-186535-B-1-A MS	Matrix Spike	Total/NA	Water	533	191801
380-186535-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	191801

# Lab Chronicle

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

Job ID: 380-185831-1  
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: 380-185831-1

Date Collected: 12/01/25 10:24

Matrix: Water

Date Received: 12/03/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			191151	XTD8	EA POM	12/09/25 07:13
Total/NA	Analysis	533		1	191269	M7ML	EA POM	12/09/25 18:59
Total/NA	Prep	537.1 DW			190150	L9UA	EA POM	12/04/25 13:02
Total/NA	Analysis	537.1		1	190361	SZ9R	EA POM	12/05/25 07:47

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

Lab Sample ID: 380-185831-2

Date Collected: 12/01/25 10:52

Matrix: Water

Date Received: 12/03/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			191801	N8NE	EA POM	12/11/25 13:59
Total/NA	Analysis	533		1	192084	Y5FM	EA POM	12/12/25 13:27
Total/NA	Prep	537.1 DW			190150	L9UA	EA POM	12/04/25 13:02
Total/NA	Analysis	537.1		1	190361	SZ9R	EA POM	12/05/25 07:57

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

Lab Sample ID: 380-185831-3

Date Collected: 12/01/25 11:27

Matrix: Water

Date Received: 12/03/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			191801	N8NE	EA POM	12/11/25 13:59
Total/NA	Analysis	533		1	192084	Y5FM	EA POM	12/12/25 13:36
Total/NA	Prep	537.1 DW			190150	L9UA	EA POM	12/04/25 13:02
Total/NA	Analysis	537.1		1	190361	SZ9R	EA POM	12/05/25 08:06

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

Lab Sample ID: 380-185831-4

Date Collected: 12/01/25 11:53

Matrix: Water

Date Received: 12/03/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			191151	XTD8	EA POM	12/09/25 07:13
Total/NA	Analysis	533		1	191269	M7ML	EA POM	12/09/25 19:27
Total/NA	Prep	537.1 DW			190150	L9UA	EA POM	12/04/25 13:02
Total/NA	Analysis	537.1		1	190361	SZ9R	EA POM	12/05/25 08:16

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

Lab Sample ID: 380-185831-5

Date Collected: 12/01/25 10:27

Matrix: Water

Date Received: 12/03/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			191151	XTD8	EA POM	12/09/25 07:13
Total/NA	Analysis	533		1	191269	M7ML	EA POM	12/09/25 19:37

Eurofins Eaton Analytical Pomona

# Lab Chronicle

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

Job ID: 380-185831-1  
 SDG: PFAS: Moanalua Wells, Halawa Wells, Aiea Gulch Wells  
 P1/P2, Aiea Wells Pumps 1&2

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

**Lab Sample ID: 380-185831-5**

Date Collected: 12/01/25 10:27

Matrix: Water

Date Received: 12/03/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	537.1 DW			190150	L9UA	EA POM	12/04/25 13:02
Total/NA	Analysis	537.1		1	190361	SZ9R	EA POM	12/05/25 08:26

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

**Lab Sample ID: 380-185831-6**

Date Collected: 12/01/25 10:52

Matrix: Water

Date Received: 12/03/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			191151	XTD8	EA POM	12/09/25 07:13
Total/NA	Analysis	533		1	191269	M7ML	EA POM	12/09/25 19:46
Total/NA	Prep	537.1 DW			190150	L9UA	EA POM	12/04/25 13:02
Total/NA	Analysis	537.1		1	190361	SZ9R	EA POM	12/05/25 08:35

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

**Lab Sample ID: 380-185831-7**

Date Collected: 12/01/25 11:27

Matrix: Water

Date Received: 12/03/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			191151	XTD8	EA POM	12/09/25 07:13
Total/NA	Analysis	533		1	191269	M7ML	EA POM	12/09/25 19:56
Total/NA	Prep	537.1 DW			190150	L9UA	EA POM	12/04/25 13:02
Total/NA	Analysis	537.1		1	190361	SZ9R	EA POM	12/05/25 08:45

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

**Lab Sample ID: 380-185831-8**

Date Collected: 12/01/25 11:53

Matrix: Water

Date Received: 12/03/25 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			191151	XTD8	EA POM	12/09/25 07:13
Total/NA	Analysis	533		1	191269	M7ML	EA POM	12/09/25 20:05
Total/NA	Prep	537.1 DW			190150	L9UA	EA POM	12/04/25 13:02
Total/NA	Analysis	537.1		1	190361	SZ9R	EA POM	12/05/25 09:06

**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: 380-185831-1  
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

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

# Method Summary

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

Job ID: 380-185831-1  
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: 380-185831-1  
 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
380-185831-1	MOANALUA WELLS (331-223-TP202)	Water	12/01/25 10:24	12/03/25 10:30	Hawaii
380-185831-2	HALAWA WELLS UNITS 1 & 2 P1 (331-206-TP065)	Water	12/01/25 10:52	12/03/25 10:30	Hawaii
380-185831-3	AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Water	12/01/25 11:27	12/03/25 10:30	Hawaii
380-185831-4	AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Water	12/01/25 11:53	12/03/25 10:30	Hawaii
380-185831-5	FB MOANALUA WELLS (331-223-TP202)	Water	12/01/25 10:27	12/03/25 10:30	Hawaii
380-185831-6	FB HALAWA WELLS UNITS 1 & 2 (331-206-TP065)	Water	12/01/25 10:52	12/03/25 10:30	Hawaii
380-185831-7	FB AIEA GULCH WELLS PUMP 1 (331-201-TP071)	Water	12/01/25 11:27	12/03/25 10:30	Hawaii
380-185831-8	FB AIEA GULCH WELLS PUMP 2 (331-202-TP072)	Water	12/01/25 11:53	12/03/25 10:30	Hawaii



Monrovia, CA (Suite 100)

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

Chain of Custody Record

<b>Client Information</b>		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		Analysis Requested			
Address 630 South Beretania Street Chemistry Lab		Due Date Requested		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 5371_DW_PREC - 5371 Full List 533 - All Analytes		Total Number of containers		Preservation Codes	
City Honolulu		TAT Requested (days)						A HCL M Hexane B NaOH N None C Zn Acetate O AsNaO2 D Nitric Acid P Na2O4S E NaHSO4 Q Na2SO3 F MeOH R Na2S2O3 G Amchlor S H2SO4 H Ascorbic Acid T TSP Dodecahydrate I Ice U Acetone J DI Water V MCAA K EDTA W pH 4-5 L EDA Y Trizma Z other (specify)	
State Zip HI, 96843		Compliance Project: Δ No						Other:	
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#							
<b>Sample Identification</b>		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	
								Special Instructions/Note	
Moanalua Wells		1-Dec-2025		1024		G		Water	
Halawa Wells Units 1&2 P1		1-Dec-2025		1052		G		Water	
Aiea Gulch Wells Pump 1		1-Dec-2025		1127		G		Water	
Aiea Gulch Wells Pump 2		1-Dec-2025		1153		G		Water	
FB Moanalua Wells		1-Dec-2025		1024					
FB Halawa Wells Units 1&2		1 Dec-2025		1052					
FB Aiea Gulch Wells Pump 1		1-Dec-2025		1127					
FB Aiea Gulch Wells Pump 2		1-Dec-2025		1153					
<b>Possible Hazard Identification</b>		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		<b>Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)</b>					
Deliverable Requested I II III, IV Other (specify)				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Empty Kit Relinquished by		Date		Time		Method of Shipment: FedX 9566 5188 8895			
Relinquished by		Date/Time 02 december 2025		Company ACD		Received by Mark Curran		Date/Time 12/3/25 1030	
Relinquished by		Date/Time		Company		Received by		Date/Time	
Relinquished by		Date/Time		Company		Received by		Date/Time	
Custody Seals Intact Δ Yes Δ No		Custody Seal No		Cooler Temperature(s) °C and Other Remarks (751A) 16-0016 gpc - fr 700					



380-185831 COC

## Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-185831-1

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

**Login Number: 185831**

**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	
CIO4 headspace requirement met (>50% for CA, >30% for other states).	N/A	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

