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# ANALYTICAL REPORT

## PREPARED FOR

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

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## JOB DESCRIPTION

RED-HILL  
PFAS: Moanalua Wells P1  
RUSH Weekly Red Hill

## JOB NUMBER

380-194001-1

# Eurofins 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 Drinking Water and Wastewater West, LLC Project Manager.

## Compliance Statement

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

## Authorization



Authorized for release by  
Maria Lopez, Project Manager  
[Maria.Lopez@et.eurofinsus.com](mailto:Maria.Lopez@et.eurofinsus.com)  
(626)386-1100

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# Definitions/Glossary

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

Job ID: 380-194001-1  
SDG: PFAS: Moanalua Wells P1

## 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: 380-194001-1

**Job ID: 380-194001-1**

**Eurofins Pomona**

## Job Narrative 380-194001-1

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 1/22/2026 9:55 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.4°C and 5.0°C.

### PFAS

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



# Detection Summary

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

Job ID: 380-194001-1  
SDG: PFAS: Moanalua Wells P1

**Client Sample ID: MOANALUA WELLS P1 (331-223-TP202)**  
**PWSID Number: HI0000331**

**Lab Sample ID: 380-194001-1**

No Detections.

**Client Sample ID: MOANALUA WELLS P1 (331-223-TP202)**

**Lab Sample ID: 380-194001-2**

**Field Blank**

**PWSID Number: HI0000331**

No Detections.

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This Detection Summary does not include radiochemical test results.

# Client Sample Results

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

Job ID: 380-194001-1  
SDG: PFAS: Moanalua Wells P1

**Client Sample ID: MOANALUA WELLS P1 (331-223-TP202)**

**Lab Sample ID: 380-194001-1**

Date Collected: 01/20/26 12:50

Matrix: Drinking Water

Date Received: 01/22/26 09:55

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:22	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:22	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:22	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:22	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:22	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:22	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:22	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:22	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:22	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:22	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:22	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:22	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:22	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:22	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:22	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:22	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:22	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:22	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:22	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:22	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:22	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:22	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:22	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:22	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:22	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	101		50 - 200	01/24/26 15:04	01/25/26 16:22	1
13C6 PFDA	118		50 - 200	01/24/26 15:04	01/25/26 16:22	1
13C5 PFHxA	112		50 - 200	01/24/26 15:04	01/25/26 16:22	1
13C4 PFHpA	109		50 - 200	01/24/26 15:04	01/25/26 16:22	1
13C8 PFOA	109		50 - 200	01/24/26 15:04	01/25/26 16:22	1
13C9 PFNA	119		50 - 200	01/24/26 15:04	01/25/26 16:22	1
13C7 PFUnA	118		50 - 200	01/24/26 15:04	01/25/26 16:22	1
13C2 PFDoA	122		50 - 200	01/24/26 15:04	01/25/26 16:22	1
13C4 PFBA	115		50 - 200	01/24/26 15:04	01/25/26 16:22	1
13C5 PFPeA	123		50 - 200	01/24/26 15:04	01/25/26 16:22	1
13C3 PFBS	109		50 - 200	01/24/26 15:04	01/25/26 16:22	1
13C3 PFHxS	110		50 - 200	01/24/26 15:04	01/25/26 16:22	1
13C8 PFOS	112		50 - 200	01/24/26 15:04	01/25/26 16:22	1

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# Client Sample Results

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

Job ID: 380-194001-1  
SDG: PFAS: Moanalua Wells P1

**Client Sample ID: MOANALUA WELLS P1 (331-223-TP202)**

**Lab Sample ID: 380-194001-1**

Date Collected: 01/20/26 12:50

Matrix: Drinking Water

Date Received: 01/22/26 09:55

PWSID Number: HI0000331

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2-4:2-FTS	123		50 - 200	01/24/26 15:04	01/25/26 16:22	1
13C2-6:2-FTS	136		50 - 200	01/24/26 15:04	01/25/26 16:22	1
13C2-8:2-FTS	137		50 - 200	01/24/26 15:04	01/25/26 16:22	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		01/23/26 16:18	01/24/26 21:28	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:28	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:28	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:28	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:28	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:28	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:28	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:28	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:28	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:28	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:28	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:28	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:28	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:28	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:28	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:28	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:28	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:28	1

  

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	110		70 - 130	01/23/26 16:18	01/24/26 21:28	1
13C2 PFHxA	111		70 - 130	01/23/26 16:18	01/24/26 21:28	1
13C2 PFDA	115		70 - 130	01/23/26 16:18	01/24/26 21:28	1
13C3-GenX	103		70 - 130	01/23/26 16:18	01/24/26 21:28	1

**Client Sample ID: MOANALUA WELLS P1 (331-223-TP202)**

**Lab Sample ID: 380-194001-2**

**Field Blank**

Date Collected: 01/20/26 12:50

Matrix: Water

Date Received: 01/22/26 09:55

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:31	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:31	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:31	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:31	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:31	1

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# Client Sample Results

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

Job ID: 380-194001-1  
SDG: PFAS: Moanalua Wells P1

**Client Sample ID: MOANALUA WELLS P1 (331-223-TP202)**

**Lab Sample ID: 380-194001-2**

**Field Blank**

Date Collected: 01/20/26 12:50

Matrix: Water

Date Received: 01/22/26 09:55

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:31	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:31	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:31	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:31	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:31	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:31	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:31	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:31	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:31	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:31	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:31	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:31	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:31	1
Nonafluoro-3,6-dioxahexanoic acid (NFDHA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:31	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:31	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:31	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:31	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:31	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:31	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		01/24/26 15:04	01/25/26 16:31	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	97		50 - 200	01/24/26 15:04	01/25/26 16:31	1
13C6 PFDA	117		50 - 200	01/24/26 15:04	01/25/26 16:31	1
13C5 PFHxA	110		50 - 200	01/24/26 15:04	01/25/26 16:31	1
13C4 PFHpA	107		50 - 200	01/24/26 15:04	01/25/26 16:31	1
13C8 PFOA	109		50 - 200	01/24/26 15:04	01/25/26 16:31	1
13C9 PFNA	116		50 - 200	01/24/26 15:04	01/25/26 16:31	1
13C7 PFUnA	117		50 - 200	01/24/26 15:04	01/25/26 16:31	1
13C2 PFDoA	122		50 - 200	01/24/26 15:04	01/25/26 16:31	1
13C4 PFBA	112		50 - 200	01/24/26 15:04	01/25/26 16:31	1
13C5 PFPeA	117		50 - 200	01/24/26 15:04	01/25/26 16:31	1
13C3 PFBS	100		50 - 200	01/24/26 15:04	01/25/26 16:31	1
13C3 PFHxS	101		50 - 200	01/24/26 15:04	01/25/26 16:31	1
13C8 PFOS	109		50 - 200	01/24/26 15:04	01/25/26 16:31	1
13C2-4:2-FTS	121		50 - 200	01/24/26 15:04	01/25/26 16:31	1
13C2-6:2-FTS	127		50 - 200	01/24/26 15:04	01/25/26 16:31	1
13C2-8:2-FTS	129		50 - 200	01/24/26 15:04	01/25/26 16:31	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		01/23/26 16:18	01/24/26 21:37	1

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# Client Sample Results

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

Job ID: 380-194001-1  
SDG: PFAS: Moanalua Wells P1

**Client Sample ID: MOANALUA WELLS P1 (331-223-TP202)**

**Lab Sample ID: 380-194001-2**

**Field Blank**

Date Collected: 01/20/26 12:50

Matrix: Water

Date Received: 01/22/26 09:55

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:37	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:37	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:37	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:37	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:37	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:37	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:37	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:37	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:37	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:37	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:37	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:37	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:37	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:37	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:37	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:37	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		01/23/26 16:18	01/24/26 21:37	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	107		70 - 130			01/23/26 16:18	01/24/26 21:37	1
13C2 PFHxA	110		70 - 130			01/23/26 16:18	01/24/26 21:37	1
13C2 PFDA	113		70 - 130			01/23/26 16:18	01/24/26 21:37	1
13C3-GenX	100		70 - 130			01/23/26 16:18	01/24/26 21:37	1

## Action Limit Summary

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

Job ID: 380-194001-1  
SDG: PFAS: Moanalua Wells P1

**Client Sample ID: MOANALUA WELLS P1 (331-223-TP202)**

**Lab Sample ID: 380-194001-1**

**PWSID Number: HI0000331**

### Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL	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: MOANALUA WELLS P1 (331-223-TP202)**

**Lab Sample ID: 380-194001-2**

### Field Blank

**PWSID Number: HI0000331**

### Compliance Check

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

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

# Surrogate Summary

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

Job ID: 380-194001-1  
 SDG: PFAS: Moanalua Wells P1

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

Matrix: Drinking Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		d5NEFOS (70-130)	PFHxA (70-130)	PFDA (70-130)	GenX (70-130)
380-194001-1	MOANALUA WELLS P1 (331-223-T)	110	111	115	103

**Surrogate Legend**

d5NEFOS = d5-NEtFOSAA  
 PFHxA = 13C2 PFHxA  
 PFDA = 13C2 PFDA  
 GenX = 13C3-GenX

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		d5NEFOS (70-130)	PFHxA (70-130)	PFDA (70-130)	GenX (70-130)
380-194001-2	MOANALUA WELLS P1 (331-223-T)	107	110	113	100
380-194002-B-1-A MS	Matrix Spike	108	111	110	104
380-194002-C-1-A MSD	Matrix Spike Duplicate	109	110	111	106
LCS 380-200589/21-A	Lab Control Sample	101	107	114	100
MBL 380-200589/19-A	Method Blank	101	106	113	94
MRL 380-200589/20-A	Lab Control Sample	109	111	114	105

**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: 380-194001-1  
SDG: PFAS: Moanalua Wells P1

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

Matrix: Drinking Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	HFPODA (50-200)	C6PFDA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	13C7PUA (50-200)	PFDoA (50-200)
380-194001-1	MOANALUA WELLS P1 (331-223-T)	101	118	112	109	109	119	118	122

  

		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)
380-194001-1	MOANALUA WELLS P1 (331-223-T)	115	123	109	110	112	123	136	137

**Surrogate Legend**

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

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

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	HFPODA (50-200)	C6PFDA (50-200)	13C5PHA (50-200)	C4PFHA (50-200)	C8PFOA (50-200)	C9PFNA (50-200)	13C7PUA (50-200)	PFDoA (50-200)
380-194001-2	MOANALUA WELLS P1 (331-223-T)	97	117	110	107	109	116	117	122
380-194205-A-1-B MS	Matrix Spike	111	125	117	114	116	124	129	132
380-194205-A-1-C MSD	Matrix Spike Duplicate	93	114	102	97	104	110	118	123
LCS 380-200675/24-A	Lab Control Sample	116	128	117	112	114	123	130	139
MBL 380-200675/22-A	Method Blank	100	116	107	110	112	113	114	127
MRL 380-200675/23-A	Lab Control Sample	98	118	112	113	114	120	120	125

  

		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)
380-194001-2	MOANALUA WELLS P1 (331-223-T)	112	117	100	101	109	121	127	129
380-194205-A-1-B MS	Matrix Spike	113	122	109	116	117	124	130	131
380-194205-A-1-C MSD	Matrix Spike Duplicate	103	113	117	109	118	120	129	142
LCS 380-200675/24-A	Lab Control Sample	113	121	121	113	117	123	133	137
MBL 380-200675/22-A	Method Blank	112	120	105	105	111	116	130	139
MRL 380-200675/23-A	Lab Control Sample	116	124	114	110	116	125	138	144

**Surrogate Legend**

- HFPODA = 13C3 HFPO-DA
- C6PFDA = 13C6 PFDA
- 13C5PHA = 13C5 PFHxA

# Isotope Dilution Summary

Client: City & County of Honolulu

Project/Site: RED-HILL

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

Job ID: 380-194001-1  
SDG: PFAS: Moanalua Wells P1

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# QC Sample Results

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

Job ID: 380-194001-1  
SDG: PFAS: Moanalua Wells P1

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

**Lab Sample ID: MBL 380-200675/22-A**  
**Matrix: Water**  
**Analysis Batch: 200723**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 200675**

Analyte	MBL	MBL	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		01/24/26 15:04	01/25/26 14:36	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		01/24/26 15:04	01/25/26 14:36	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		01/24/26 15:04	01/25/26 14:36	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		01/24/26 15:04	01/25/26 14:36	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		01/24/26 15:04	01/25/26 14:36	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		01/24/26 15:04	01/25/26 14:36	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		01/24/26 15:04	01/25/26 14:36	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		01/24/26 15:04	01/25/26 14:36	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		01/24/26 15:04	01/25/26 14:36	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		01/24/26 15:04	01/25/26 14:36	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		01/24/26 15:04	01/25/26 14:36	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		01/24/26 15:04	01/25/26 14:36	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		01/24/26 15:04	01/25/26 14:36	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		01/24/26 15:04	01/25/26 14:36	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		01/24/26 15:04	01/25/26 14:36	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		01/24/26 15:04	01/25/26 14:36	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		01/24/26 15:04	01/25/26 14:36	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		01/24/26 15:04	01/25/26 14:36	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		01/24/26 15:04	01/25/26 14:36	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<0.25		2.0	ng/L		01/24/26 15:04	01/25/26 14:36	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		01/24/26 15:04	01/25/26 14:36	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		01/24/26 15:04	01/25/26 14:36	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		01/24/26 15:04	01/25/26 14:36	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		01/24/26 15:04	01/25/26 14:36	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		01/24/26 15:04	01/25/26 14:36	1

Isotope Dilution	MBL	MBL	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C3 HFPO-DA	100		50 - 200	01/24/26 15:04	01/25/26 14:36	1
13C6 PFDA	116		50 - 200	01/24/26 15:04	01/25/26 14:36	1
13C5 PFHxA	107		50 - 200	01/24/26 15:04	01/25/26 14:36	1
13C4 PFHpA	110		50 - 200	01/24/26 15:04	01/25/26 14:36	1
13C8 PFOA	112		50 - 200	01/24/26 15:04	01/25/26 14:36	1
13C9 PFNA	113		50 - 200	01/24/26 15:04	01/25/26 14:36	1
13C7 PFUnA	114		50 - 200	01/24/26 15:04	01/25/26 14:36	1
13C2 PFDoA	127		50 - 200	01/24/26 15:04	01/25/26 14:36	1
13C4 PFBA	112		50 - 200	01/24/26 15:04	01/25/26 14:36	1
13C5 PFPeA	120		50 - 200	01/24/26 15:04	01/25/26 14:36	1
13C3 PFBS	105		50 - 200	01/24/26 15:04	01/25/26 14:36	1
13C3 PFHxS	105		50 - 200	01/24/26 15:04	01/25/26 14:36	1

Eurofins Pomona

# QC Sample Results

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

Job ID: 380-194001-1  
SDG: PFAS: Moanalua Wells P1

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

**Lab Sample ID: MBL 380-200675/22-A**  
**Matrix: Water**  
**Analysis Batch: 200723**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 200675**

<i>Isotope Dilution</i>	<i>MBL</i>	<i>MBL</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
	<i>%Recovery</i>	<i>Qualifier</i>				
13C8 PFOS	111		50 - 200	01/24/26 15:04	01/25/26 14:36	1
13C2-4:2-FTS	116		50 - 200	01/24/26 15:04	01/25/26 14:36	1
13C2-6:2-FTS	130		50 - 200	01/24/26 15:04	01/25/26 14:36	1
13C2-8:2-FTS	139		50 - 200	01/24/26 15:04	01/25/26 14:36	1

**Lab Sample ID: LCS 380-200675/24-A**  
**Matrix: Water**  
**Analysis Batch: 200723**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 200675**

<i>Analyte</i>	<i>Spike</i>	<i>LCS</i>	<i>LCS</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec</i>
	<i>Added</i>	<i>Result</i>	<i>Qualifier</i>				<i>Limits</i>
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	120	116		ng/L		96	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	120	109		ng/L		90	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	120	114		ng/L		95	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	120	115		ng/L		95	70 - 130
Perfluorobutanesulfonic acid (PFBS)	120	108		ng/L		90	70 - 130
Perfluorodecanoic acid (PFDA)	120	110		ng/L		91	70 - 130
Perfluorododecanoic acid (PFDoA)	120	111		ng/L		92	70 - 130
Perfluoroheptanoic acid (PFHpA)	120	119		ng/L		99	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	120	116		ng/L		96	70 - 130
Perfluorohexanoic acid (PFHxA)	120	114		ng/L		95	70 - 130
Perfluorononanoic acid (PFNA)	120	111		ng/L		92	70 - 130
Perfluorooctanesulfonic acid (PFOS)	120	114		ng/L		95	70 - 130
Perfluorooctanoic acid (PFOA)	120	111		ng/L		92	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	119		ng/L		99	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	120	117		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	120	112		ng/L		93	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	120	111		ng/L		92	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	120	111		ng/L		93	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	120	119		ng/L		99	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	120	105		ng/L		87	70 - 130
Perfluoropentanoic acid (PFPeA)	120	111		ng/L		92	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	120	108		ng/L		90	70 - 130

# QC Sample Results

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

Job ID: 380-194001-1  
 SDG: PFAS: Moanalua Wells P1

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

**Lab Sample ID: LCS 380-200675/24-A**  
**Matrix: Water**  
**Analysis Batch: 200723**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 200675**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Perfluoropentanesulfonic acid (PFPeS)	120	117		ng/L		97	70 - 130
<b>LCS LCS</b>							
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				
13C3 HFPO-DA	116		50 - 200				
13C6 PFDA	128		50 - 200				
13C5 PFHxA	117		50 - 200				
13C4 PFHpA	112		50 - 200				
13C8 PFOA	114		50 - 200				
13C9 PFNA	123		50 - 200				
13C7 PFUnA	130		50 - 200				
13C2 PFDoA	139		50 - 200				
13C4 PFBA	113		50 - 200				
13C5 PFPeA	121		50 - 200				
13C3 PFBS	121		50 - 200				
13C3 PFHxS	113		50 - 200				
13C8 PFOS	117		50 - 200				
13C2-4:2-FTS	123		50 - 200				
13C2-6:2-FTS	133		50 - 200				
13C2-8:2-FTS	137		50 - 200				

**Lab Sample ID: MRL 380-200675/23-A**  
**Matrix: Water**  
**Analysis Batch: 200723**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 200675**

Analyte	Spike Added	MRL	MRL	Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	2.01	J	ng/L		100	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	2.02	J	ng/L		100	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	1.86	J	ng/L		93	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.11	J	ng/L		105	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	1.95	J	ng/L		97	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.03	J	ng/L		101	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.10	J	ng/L		104	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.14	J	ng/L		106	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.00	J	ng/L		99	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.02	J	ng/L		101	50 - 150
Perfluorononanoic acid (PFNA)	2.01	1.96	J	ng/L		98	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.03	J	ng/L		101	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.01	J	ng/L		100	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.02	J	ng/L		101	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	1.98	J	ng/L		99	50 - 150

Eurofins Pomona

# QC Sample Results

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

Job ID: 380-194001-1  
SDG: PFAS: Moanalua Wells P1

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

**Lab Sample ID: MRL 380-200675/23-A**  
**Matrix: Water**  
**Analysis Batch: 200723**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 200675**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	2.12	J	ng/L		106	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	2.24	J	ng/L		112	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	2.56	J	ng/L		128	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	1.80	J	ng/L		90	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.01	2.17	J	ng/L		108	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	2.00	J	ng/L		100	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	1.91	J	ng/L		95	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	1.93	J	ng/L		96	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.01	1.81	J	ng/L		90	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	1.99	J	ng/L		99	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	98		50 - 200
13C6 PFDA	118		50 - 200
13C5 PFHxA	112		50 - 200
13C4 PFHpA	113		50 - 200
13C8 PFOA	114		50 - 200
13C9 PFNA	120		50 - 200
13C7 PFUnA	120		50 - 200
13C2 PFDoA	125		50 - 200
13C4 PFBA	116		50 - 200
13C5 PFPeA	124		50 - 200
13C3 PFBS	114		50 - 200
13C3 PFHxS	110		50 - 200
13C8 PFOS	116		50 - 200
13C2-4:2-FTS	125		50 - 200
13C2-6:2-FTS	138		50 - 200
13C2-8:2-FTS	144		50 - 200

**Lab Sample ID: 380-194205-A-1-B MS**  
**Matrix: Water**  
**Analysis Batch: 200723**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 200675**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.4	57.5		ng/L		95	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.4	57.2		ng/L		95	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.4	56.9		ng/L		94	70 - 130

# QC Sample Results

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

Job ID: 380-194001-1  
SDG: PFAS: Moanalua Wells P1

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

**Lab Sample ID: 380-194205-A-1-B MS**

**Client Sample ID: Matrix Spike**

**Matrix: Water**

**Prep Type: Total/NA**

**Analysis Batch: 200723**

**Prep Batch: 200675**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec Limits
	Result	Qualifier	Added	Result	Qualifier				
Hexafluoropropylene Oxide	<2.0		60.4	55.5		ng/L		92	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.4	62.1		ng/L		102	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.4	58.6		ng/L		97	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.4	58.6		ng/L		97	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.4	60.3		ng/L		100	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.4	59.5		ng/L		97	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		60.4	56.7		ng/L		92	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.4	56.1		ng/L		93	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.4	56.6		ng/L		94	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.4	56.3		ng/L		92	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.4	56.1		ng/L		93	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.4	57.8		ng/L		96	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.4	63.9		ng/L		106	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.4	59.7		ng/L		99	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.4	59.8		ng/L		98	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.4	47.9		ng/L		79	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.4	65.6		ng/L		109	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.4	60.7		ng/L		101	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.4	56.6		ng/L		94	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		60.4	57.6		ng/L		94	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.4	56.6		ng/L		94	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.4	59.8		ng/L		99	70 - 130

Isotope Dilution	MS MS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	111		50 - 200
13C6 PFDA	125		50 - 200
13C5 PFHxA	117		50 - 200
13C4 PFHpA	114		50 - 200
13C8 PFOA	116		50 - 200
13C9 PFNA	124		50 - 200
13C7 PFUnA	129		50 - 200
13C2 PFDoA	132		50 - 200
13C4 PFBA	113		50 - 200
13C5 PFPeA	122		50 - 200
13C3 PFBS	109		50 - 200
13C3 PFHxS	116		50 - 200
13C8 PFOS	117		50 - 200

# QC Sample Results

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

Job ID: 380-194001-1  
SDG: PFAS: Moanalua Wells P1

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

**Lab Sample ID: 380-194205-A-1-B MS**  
**Matrix: Water**  
**Analysis Batch: 200723**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 200675**

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
13C2-4:2-FTS	124		50 - 200
13C2-6:2-FTS	130		50 - 200
13C2-8:2-FTS	131		50 - 200

**Lab Sample ID: 380-194205-A-1-C MSD**  
**Matrix: Water**  
**Analysis Batch: 200723**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 200675**

<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-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.4	57.9		ng/L		96	70 - 130	1	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.4	55.7		ng/L		92	70 - 130	3	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.4	56.7		ng/L		94	70 - 130	0	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.4	54.3		ng/L		90	70 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.4	57.2		ng/L		94	70 - 130	8	30
Perfluorodecanoic acid (PFDA)	<2.0		60.4	59.7		ng/L		99	70 - 130	2	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.4	59.3		ng/L		98	70 - 130	1	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.4	63.6		ng/L		105	70 - 130	5	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.4	63.0		ng/L		102	70 - 130	6	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.4	59.6		ng/L		97	70 - 130	5	30
Perfluorononanoic acid (PFNA)	<2.0		60.4	58.5		ng/L		97	70 - 130	4	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.4	56.1		ng/L		93	70 - 130	1	30
Perfluorooctanoic acid (PFOA)	<2.0		60.4	55.5		ng/L		91	70 - 130	1	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.4	58.4		ng/L		97	70 - 130	4	30
Perfluorobutanoic acid (PFBA)	<2.0		60.4	58.5		ng/L		97	70 - 130	1	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.4	59.2		ng/L		98	70 - 130	8	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.4	63.3		ng/L		105	70 - 130	6	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.4	58.7		ng/L		96	70 - 130	2	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.4	50.1		ng/L		83	70 - 130	5	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.4	61.1		ng/L		101	70 - 130	7	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.4	60.5		ng/L		100	70 - 130	0	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.4	55.3		ng/L		92	70 - 130	2	30
Perfluoropentanoic acid (PFPeA)	<2.0		60.4	54.9		ng/L		90	70 - 130	5	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.4	56.5		ng/L		94	70 - 130	0	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.4	60.8		ng/L		101	70 - 130	2	30

# QC Sample Results

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

Job ID: 380-194001-1  
SDG: PFAS: Moanalua Wells P1

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

Isotope Dilution	MSD MSD		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	93		50 - 200
13C6 PFDA	114		50 - 200
13C5 PFHxA	102		50 - 200
13C4 PFHpA	97		50 - 200
13C8 PFOA	104		50 - 200
13C9 PFNA	110		50 - 200
13C7 PFUnA	118		50 - 200
13C2 PFDoA	123		50 - 200
13C4 PFBA	103		50 - 200
13C5 PFPeA	113		50 - 200
13C3 PFBS	117		50 - 200
13C3 PFHxS	109		50 - 200
13C8 PFOS	118		50 - 200
13C2-4:2-FTS	120		50 - 200
13C2-6:2-FTS	129		50 - 200
13C2-8:2-FTS	142		50 - 200

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

**Lab Sample ID: MBL 380-200589/19-A**  
**Matrix: Water**  
**Analysis Batch: 200706**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 200589**

Analyte	MBL MBL		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		01/23/26 16:18	01/24/26 18:57	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		01/23/26 16:18	01/24/26 18:57	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		01/23/26 16:18	01/24/26 18:57	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		01/23/26 16:18	01/24/26 18:57	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		01/23/26 16:18	01/24/26 18:57	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		01/23/26 16:18	01/24/26 18:57	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		01/23/26 16:18	01/24/26 18:57	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		01/23/26 16:18	01/24/26 18:57	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		01/23/26 16:18	01/24/26 18:57	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		01/23/26 16:18	01/24/26 18:57	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		01/23/26 16:18	01/24/26 18:57	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		01/23/26 16:18	01/24/26 18:57	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		01/23/26 16:18	01/24/26 18:57	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		01/23/26 16:18	01/24/26 18:57	1
Perfluorotridecanoic acid (PFTTrDA)	<0.36		2.0	ng/L		01/23/26 16:18	01/24/26 18:57	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		01/23/26 16:18	01/24/26 18:57	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		01/23/26 16:18	01/24/26 18:57	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		01/23/26 16:18	01/24/26 18:57	1
Surrogate	MBL MBL		Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
d5-NEtFOSAA	101		70 - 130			01/23/26 16:18	01/24/26 18:57	1
13C2 PFHxA	106		70 - 130			01/23/26 16:18	01/24/26 18:57	1
13C2 PFDA	113		70 - 130			01/23/26 16:18	01/24/26 18:57	1

Eurofins Pomona

# QC Sample Results

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

Job ID: 380-194001-1  
SDG: PFAS: Moanalua Wells P1

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

**Lab Sample ID: MBL 380-200589/19-A**  
**Matrix: Water**  
**Analysis Batch: 200706**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 200589**

Surrogate	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3-GenX	94		70 - 130	01/23/26 16:18	01/24/26 18:57	1

**Lab Sample ID: LCS 380-200589/21-A**  
**Matrix: Water**  
**Analysis Batch: 200706**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 200589**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	50.2	45.4		ng/L		90	70 - 130
Dimer Acid (HFPO-DA/GenX)							
Perfluorooctanesulfonic acid (PFOS)	50.2	53.1		ng/L		106	70 - 130
Perfluoroundecanoic acid (PFUnA)	50.2	51.1		ng/L		102	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	50.2	49.0		ng/L		98	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	50.2	48.7		ng/L		97	70 - 130
Perfluorohexanoic acid (PFHxA)	50.2	48.6		ng/L		97	70 - 130
Perfluorododecanoic acid (PFDoA)	50.2	51.0		ng/L		102	70 - 130
Perfluorooctanoic acid (PFOA)	50.2	50.9		ng/L		101	70 - 130
Perfluorodecanoic acid (PFDA)	50.2	53.8		ng/L		107	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	50.2	52.6		ng/L		105	70 - 130
Perfluorobutanesulfonic acid (PFBS)	50.2	51.5		ng/L		103	70 - 130
Perfluoroheptanoic acid (PFHpA)	50.2	51.0		ng/L		102	70 - 130
Perfluorononanoic acid (PFNA)	50.2	51.3		ng/L		102	70 - 130
Perfluorotetradecanoic acid (PFTA)	50.2	40.5		ng/L		81	70 - 130
Perfluorotridecanoic acid (PFTrDA)	50.2	53.5		ng/L		107	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	50.2	51.3		ng/L		102	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	50.2	48.7		ng/L		97	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	50.2	49.6		ng/L		99	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
d5-NEtFOSAA	101		70 - 130
13C2 PFHxA	107		70 - 130
13C2 PFDA	114		70 - 130
13C3-GenX	100		70 - 130

# QC Sample Results

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

Job ID: 380-194001-1  
SDG: PFAS: Moanalua Wells P1

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

**Lab Sample ID: MRL 380-200589/20-A**  
**Matrix: Water**  
**Analysis Batch: 200706**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 200589**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.00	1.99	J	ng/L		99	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.00	2.20	J	ng/L		110	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.00	2.18	J	ng/L		109	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.00	2.13	J	ng/L		106	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.00	2.27	J	ng/L		113	50 - 150
Perfluorohexanoic acid (PFHxA)	2.00	2.30	J	ng/L		115	50 - 150
Perfluorododecanoic acid (PFDoA)	2.00	2.10	J	ng/L		105	50 - 150
Perfluorooctanoic acid (PFOA)	2.00	2.22	J	ng/L		111	50 - 150
Perfluorodecanoic acid (PFDA)	2.00	2.24	J	ng/L		112	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.00	2.14	J	ng/L		107	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.00	2.25	J	ng/L		112	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.00	2.20	J	ng/L		110	50 - 150
Perfluorononanoic acid (PFNA)	2.00	2.47	J	ng/L		123	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.00	1.55	J	ng/L		77	50 - 150
Perfluorotridecanoic acid (PFTrDA)	2.00	2.09	J	ng/L		105	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.00	2.12	J	ng/L		106	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.00	1.89	J	ng/L		94	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.00	2.16	J	ng/L		108	50 - 150
		<b>MRL</b>	<b>MRL</b>				
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				
d5-NEtFOSAA	109		70 - 130				
13C2 PFHxA	111		70 - 130				
13C2 PFDA	114		70 - 130				
13C3-GenX	105		70 - 130				

**Lab Sample ID: 380-194002-B-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 200706**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 200589**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		25.1	24.7		ng/L		99	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		25.1	28.6		ng/L		110	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		25.1	27.1		ng/L		108	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.1	26.6		ng/L		106	70 - 130

Eurofins Pomona





# QC Association Summary

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

Job ID: 380-194001-1  
 SDG: PFAS: Moanalua Wells P1

## LCMS

### Prep Batch: 200589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-194001-1	MOANALUA WELLS P1 (331-223-TP202)	Total/NA	Drinking Water	537.1 DW	
380-194001-2	MOANALUA WELLS P1 (331-223-TP202) Field Blank	Total/NA	Water	537.1 DW	
MBL 380-200589/19-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-200589/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-200589/20-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-194002-B-1-A MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-194002-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

### Prep Batch: 200675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-194001-1	MOANALUA WELLS P1 (331-223-TP202)	Total/NA	Drinking Water	533	
380-194001-2	MOANALUA WELLS P1 (331-223-TP202) Field Blank	Total/NA	Water	533	
MBL 380-200675/22-A	Method Blank	Total/NA	Water	533	
LCS 380-200675/24-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-200675/23-A	Lab Control Sample	Total/NA	Water	533	
380-194205-A-1-B MS	Matrix Spike	Total/NA	Water	533	
380-194205-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	533	

### Analysis Batch: 200706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-194001-1	MOANALUA WELLS P1 (331-223-TP202)	Total/NA	Drinking Water	537.1	200589
380-194001-2	MOANALUA WELLS P1 (331-223-TP202) Field Blank	Total/NA	Water	537.1	200589
MBL 380-200589/19-A	Method Blank	Total/NA	Water	537.1	200589
LCS 380-200589/21-A	Lab Control Sample	Total/NA	Water	537.1	200589
MRL 380-200589/20-A	Lab Control Sample	Total/NA	Water	537.1	200589
380-194002-B-1-A MS	Matrix Spike	Total/NA	Water	537.1	200589
380-194002-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1	200589

### Analysis Batch: 200723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-194001-1	MOANALUA WELLS P1 (331-223-TP202)	Total/NA	Drinking Water	533	200675
380-194001-2	MOANALUA WELLS P1 (331-223-TP202) Field Blank	Total/NA	Water	533	200675
MBL 380-200675/22-A	Method Blank	Total/NA	Water	533	200675
LCS 380-200675/24-A	Lab Control Sample	Total/NA	Water	533	200675
MRL 380-200675/23-A	Lab Control Sample	Total/NA	Water	533	200675
380-194205-A-1-B MS	Matrix Spike	Total/NA	Water	533	200675
380-194205-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	533	200675

# Lab Chronicle

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

Job ID: 380-194001-1  
SDG: PFAS: Moanalua Wells P1

**Client Sample ID: MOANALUA WELLS P1 (331-223-TP202)**

**Lab Sample ID: 380-194001-1**

Date Collected: 01/20/26 12:50

Matrix: Drinking Water

Date Received: 01/22/26 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			200675	E9PK	EA POM	01/24/26 15:04
Total/NA	Analysis	533		1	200723	SZ9R	EA POM	01/25/26 16:22
Total/NA	Prep	537.1 DW			200589	N8NE	EA POM	01/23/26 16:18
Total/NA	Analysis	537.1		1	200706	SZ9R	EA POM	01/24/26 21:28

**Client Sample ID: MOANALUA WELLS P1 (331-223-TP202)**

**Lab Sample ID: 380-194001-2**

**Field Blank**

Date Collected: 01/20/26 12:50

Matrix: Water

Date Received: 01/22/26 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			200675	E9PK	EA POM	01/24/26 15:04
Total/NA	Analysis	533		1	200723	SZ9R	EA POM	01/25/26 16:31
Total/NA	Prep	537.1 DW			200589	N8NE	EA POM	01/23/26 16:18
Total/NA	Analysis	537.1		1	200706	SZ9R	EA POM	01/24/26 21:37

**Laboratory References:**

EA POM = Eurofins 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: 380-194001-1  
SDG: PFAS: Moanalua Wells P1

## Laboratory: Eurofins 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
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# Method Summary

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

Job ID: 380-194001-1  
SDG: PFAS: Moanalua Wells P1

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 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: 380-194001-1  
SDG: PFAS: Moanalua Wells P1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
380-194001-1	MOANALUA WELLS P1 (331-223-TP202)	Drinking Water	01/20/26 12:50	01/22/26 09:55	HI0000331
380-194001-2	MOANALUA WELLS P1 (331-223-TP202) Field Blank	Water	01/20/26 12:50	01/22/26 09:55	HI0000331

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## Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-194001-1  
SDG Number: PFAS: Moanalua Wells P1

**Login Number: 194001**

**List Number: 1**

**Creator: Segura, Ryan**

**List Source: Eurofins Pomona**

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

