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# ANALYTICAL REPORT

## PREPARED FOR

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## JOB DESCRIPTION

RED-HILL  
PFAS: Ka'amilo Wells P1

## JOB NUMBER

380-221335-1

# 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



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# Definitions/Glossary

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

Job ID: 380-221335-1  
SDG: PFAS: Ka'amilo 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: 380-221335-1

**Job ID: 380-221335-1**

**Eurofins Pomona**

## Job Narrative 380-221335-1

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 6/24/2026 9:30 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 5.6°C.

### PFAS

EPA 537.1 and EPA 533 are two distinct methods for the analysis of PFAS in drinking water. The analyses are conducted on differing instrumentation, with calibrations, extraction solvents and sample preservatives being dissimilar among the two methods. Therefore it is probable and not unexpected to see the methods having slight variations in analytical results: Ka'amilo Wells P1 (331-031-WL008) (380-221335-1). (XWB4)

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

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# Detection Summary

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

Job ID: 380-221335-1  
SDG: PFAS: Ka'amilo Wells P1

**Client Sample ID: Ka'amilo Wells P1 (331-031-WL008)**

**Lab Sample ID: 380-221335-1**

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	3.2		2.0	ng/L	1		533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.7		2.0	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	3.9		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.7		2.0	ng/L	1		533	Total/NA
Perfluorooctanoic acid (PFOA)	3.9		2.0	ng/L	1		533	Total/NA
Perfluoropentanoic acid (PFPeA)	4.1		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.5		2.0	ng/L	1		EPA 537.1 V2	Total/NA
Perfluorohexanoic acid (PFHxA)	4.3		2.0	ng/L	1		EPA 537.1 V2	Total/NA
Perfluorooctanoic acid (PFOA)	4.9		2.0	ng/L	1		EPA 537.1 V2	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	4.1		2.0	ng/L	1		EPA 537.1 V2	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.3		2.0	ng/L	1		EPA 537.1 V2	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.4		2.0	ng/L	1		EPA 537.1 V2	Total/NA

**Client Sample ID: FB: Ka'amilo Wells P1 (331-031-WL008)**

**Lab Sample ID: 380-221335-2**

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: 380-221335-1  
SDG: PFAS: Ka'amilo Wells P1

**Client Sample ID: Ka'amilo Wells P1 (331-031-WL008)**

**Lab Sample ID: 380-221335-1**

Date Collected: 06/22/26 11:45

Matrix: Water

Date Received: 06/24/26 09:30

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosfluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 05:54	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 05:54	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 05:54	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 05:54	1
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>3.2</b>		2.0	ng/L		06/25/26 06:21	06/26/26 05:54	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 05:54	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 05:54	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 05:54	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>3.7</b>		2.0	ng/L		06/25/26 06:21	06/26/26 05:54	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>3.9</b>		2.0	ng/L		06/25/26 06:21	06/26/26 05:54	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 05:54	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>4.7</b>		2.0	ng/L		06/25/26 06:21	06/26/26 05:54	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>3.9</b>		2.0	ng/L		06/25/26 06:21	06/26/26 05:54	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 05:54	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 05:54	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 05:54	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 05:54	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 05:54	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 05:54	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 05:54	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 05:54	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 05:54	1
<b>Perfluoropentanoic acid (PFPeA)</b>	<b>4.1</b>		2.0	ng/L		06/25/26 06:21	06/26/26 05:54	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 05:54	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 05:54	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	81		50 - 200	06/25/26 06:21	06/26/26 05:54	1
13C6 PFDA	87		50 - 200	06/25/26 06:21	06/26/26 05:54	1
13C5 PFHxA	88		50 - 200	06/25/26 06:21	06/26/26 05:54	1
13C4 PFHpA	89		50 - 200	06/25/26 06:21	06/26/26 05:54	1
13C8 PFOA	88		50 - 200	06/25/26 06:21	06/26/26 05:54	1
13C9 PFNA	86		50 - 200	06/25/26 06:21	06/26/26 05:54	1
13C7 PFUnA	88		50 - 200	06/25/26 06:21	06/26/26 05:54	1
13C2 PFDoA	95		50 - 200	06/25/26 06:21	06/26/26 05:54	1
13C4 PFBA	98		50 - 200	06/25/26 06:21	06/26/26 05:54	1
13C5 PFPeA	92		50 - 200	06/25/26 06:21	06/26/26 05:54	1
13C3 PFBS	107		50 - 200	06/25/26 06:21	06/26/26 05:54	1

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# Client Sample Results

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

Job ID: 380-221335-1  
SDG: PFAS: Ka'amilo Wells P1

**Client Sample ID: Ka'amilo Wells P1 (331-031-WL008)**

**Lab Sample ID: 380-221335-1**

Date Collected: 06/22/26 11:45

Matrix: Water

Date Received: 06/24/26 09:30

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFHxS	104		50 - 200	06/25/26 06:21	06/26/26 05:54	1
13C8 PFOS	109		50 - 200	06/25/26 06:21	06/26/26 05:54	1
13C2-4:2-FTS	115		50 - 200	06/25/26 06:21	06/26/26 05:54	1
13C2-6:2-FTS	113		50 - 200	06/25/26 06:21	06/26/26 05:54	1
13C2-8:2-FTS	105		50 - 200	06/25/26 06:21	06/26/26 05:54	1

**Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:47	1
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>5.5</b>		2.0	ng/L		06/25/26 10:00	06/25/26 20:47	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:47	1
N-methylperfluorooctanesulfonamide cetic acid (NMeFOSAA)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:47	1
N-ethylperfluorooctanesulfonamide cetic acid (NEtFOSAA)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:47	1
<b>Perfluorohexanoic acid (PFHxA)</b>	<b>4.3</b>		2.0	ng/L		06/25/26 10:00	06/25/26 20:47	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:47	1
<b>Perfluorooctanoic acid (PFOA)</b>	<b>4.9</b>		2.0	ng/L		06/25/26 10:00	06/25/26 20:47	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:47	1
<b>Perfluorohexanesulfonic acid (PFHxS)</b>	<b>4.1</b>		2.0	ng/L		06/25/26 10:00	06/25/26 20:47	1
<b>Perfluorobutanesulfonic acid (PFBS)</b>	<b>3.3</b>		2.0	ng/L		06/25/26 10:00	06/25/26 20:47	1
<b>Perfluoroheptanoic acid (PFHpA)</b>	<b>2.4</b>		2.0	ng/L		06/25/26 10:00	06/25/26 20:47	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:47	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:47	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:47	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:47	1
11-Chloroeicosafuoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:47	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	99		70 - 130	06/25/26 10:00	06/25/26 20:47	1
13C2 PFHxA	102		70 - 130	06/25/26 10:00	06/25/26 20:47	1
13C2 PFDA	107		70 - 130	06/25/26 10:00	06/25/26 20:47	1
13C3-GenX	106		70 - 130	06/25/26 10:00	06/25/26 20:47	1

**Client Sample ID: FB: Ka'amilo Wells P1 (331-031-WL008)**

**Lab Sample ID: 380-221335-2**

Date Collected: 06/22/26 11:45

Matrix: Water

Date Received: 06/24/26 09:30

**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		06/25/26 06:21	06/26/26 06:04	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 06:04	1

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# Client Sample Results

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

Job ID: 380-221335-1  
SDG: PFAS: Ka'amilo Wells P1

**Client Sample ID: FB: Ka'amilo Wells P1 (331-031-WL008)**

**Lab Sample ID: 380-221335-2**

Date Collected: 06/22/26 11:45

Matrix: Water

Date Received: 06/24/26 09:30

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 06:04	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 06:04	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 06:04	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 06:04	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 06:04	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 06:04	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 06:04	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 06:04	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 06:04	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 06:04	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 06:04	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 06:04	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 06:04	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 06:04	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 06:04	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 06:04	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 06:04	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 06:04	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 06:04	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 06:04	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 06:04	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 06:04	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		06/25/26 06:21	06/26/26 06:04	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	108		50 - 200	06/25/26 06:21	06/26/26 06:04	1
13C6 PFDA	114		50 - 200	06/25/26 06:21	06/26/26 06:04	1
13C5 PFHxA	111		50 - 200	06/25/26 06:21	06/26/26 06:04	1
13C4 PFHpA	116		50 - 200	06/25/26 06:21	06/26/26 06:04	1
13C8 PFOA	114		50 - 200	06/25/26 06:21	06/26/26 06:04	1
13C9 PFNA	118		50 - 200	06/25/26 06:21	06/26/26 06:04	1
13C7 PFUnA	114		50 - 200	06/25/26 06:21	06/26/26 06:04	1
13C2 PFDoA	114		50 - 200	06/25/26 06:21	06/26/26 06:04	1
13C4 PFBA	117		50 - 200	06/25/26 06:21	06/26/26 06:04	1
13C5 PFPeA	118		50 - 200	06/25/26 06:21	06/26/26 06:04	1
13C3 PFBS	111		50 - 200	06/25/26 06:21	06/26/26 06:04	1
13C3 PFHxS	104		50 - 200	06/25/26 06:21	06/26/26 06:04	1
13C8 PFOS	114		50 - 200	06/25/26 06:21	06/26/26 06:04	1
13C2-4:2-FTS	108		50 - 200	06/25/26 06:21	06/26/26 06:04	1
13C2-6:2-FTS	109		50 - 200	06/25/26 06:21	06/26/26 06:04	1
13C2-8:2-FTS	107		50 - 200	06/25/26 06:21	06/26/26 06:04	1

# Client Sample Results

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

Job ID: 380-221335-1  
SDG: PFAS: Ka'amilo Wells P1

**Client Sample ID: FB: Ka'amilo Wells P1 (331-031-WL008)**

**Lab Sample ID: 380-221335-2**

Date Collected: 06/22/26 11:45

Matrix: Water

Date Received: 06/24/26 09:30

**Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020**

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:57	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:57	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:57	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:57	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:57	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:57	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:57	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:57	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:57	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:57	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:57	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:57	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:57	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:57	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:57	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:57	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:57	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/25/26 10:00	06/25/26 20:57	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	97		70 - 130			06/25/26 10:00	06/25/26 20:57	1
13C2 PFHxA	98		70 - 130			06/25/26 10:00	06/25/26 20:57	1
13C2 PFDA	104		70 - 130			06/25/26 10:00	06/25/26 20:57	1
13C3-GenX	95		70 - 130			06/25/26 10:00	06/25/26 20:57	1

# Action Limit Summary

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

Job ID: 380-221335-1  
SDG: PFAS: Ka'amilo Wells P1

**Client Sample ID: Ka'amilo Wells P1 (331-031-WL008)**

**Lab Sample ID: 380-221335-1**

## Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL Limit	RL	Method	Prep Type
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.7		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>4.7</b>		ng/L	<b>4</b>	2.0	533	Total/NA
Perfluorooctanoic acid (PFOA)	3.9		ng/L	4	2.0	533	Total/NA
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	EPA 537.1 V2	Total/NA
<b>Perfluorooctanesulfonic acid (PFOS)</b>	<b>5.5</b>		ng/L	<b>4</b>	2.0	EPA 537.1 V2	Total/NA
<b>Perfluorooctanoic acid (PFOA)</b>	<b>4.9</b>		ng/L	<b>4</b>	2.0	EPA 537.1 V2	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	4.1		ng/L	10	2.0	EPA 537.1 V2	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	EPA 537.1 V2	Total/NA

**Client Sample ID: FB: Ka'amilo Wells P1 (331-031-WL008)**

**Lab Sample ID: 380-221335-2**

## Compliance Check

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

Analyte	Result	Qualifier	Unit	EPAMCL Limit	RL	Method	Prep Type
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		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	EPA 537.1 V2	Total/NA
Perfluorooctanesulfonic acid (PFOS)	<2.0		ng/L	4	2.0	EPA 537.1 V2	Total/NA
Perfluorooctanoic acid (PFOA)	<2.0		ng/L	4	2.0	EPA 537.1 V2	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	<2.0		ng/L	10	2.0	EPA 537.1 V2	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	EPA 537.1 V2	Total/NA

# Surrogate Summary

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

Job ID: 380-221335-1  
 SDG: PFAS: Ka'amilo Wells P1

**Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020**

**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)
380-221319-F-1-A MS	Matrix Spike	101	102	105	99
380-221319-G-1-A MSD	Matrix Spike Duplicate	102	106	107	108
380-221335-1	Ka'amilo Wells P1 (331-031-WL008)	99	102	107	106
380-221335-2	FB: Ka'amilo Wells P1 (331-031-WL008)	97	98	104	95
LCS 380-236104/21-A	Lab Control Sample	102	110	107	103
MBL 380-236104/19-A	Method Blank	99	99	99	83
MRL 380-236104/20-A	Lab Control Sample	104	96	105	94

**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: 380-221335-1  
SDG: PFAS: Ka'amilo Wells P1

## 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)
380-220780-B-1-B MS	Matrix Spike	102	107	104	105	107	106	109	111
380-220780-B-1-C MSD	Matrix Spike Duplicate	104	111	103	106	106	110	111	113
380-221335-1	Ka'amilo Wells P1 (331-031-WL008)	81	87	88	89	88	86	88	95
380-221335-2	FB: Ka'amilo Wells P1 (331-031-WL008)	108	114	111	116	114	118	114	114
LCS 380-236106/22-A	Lab Control Sample	117	121	115	119	118	118	119	122
MBL 380-236106/20-A	Method Blank	98	108	106	107	109	108	106	107
MRL 380-236106/21-A	Lab Control Sample	106	118	111	115	117	116	116	117

### 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)
380-220780-B-1-B MS	Matrix Spike	109	105	106	102	108	106	111	104
380-220780-B-1-C MSD	Matrix Spike Duplicate	106	108	105	101	108	105	104	102
380-221335-1	Ka'amilo Wells P1 (331-031-WL008)	98	92	107	104	109	115	113	105
380-221335-2	FB: Ka'amilo Wells P1 (331-031-WL008)	117	118	111	104	114	108	109	107
LCS 380-236106/22-A	Lab Control Sample	116	118	116	106	115	109	108	110
MBL 380-236106/20-A	Method Blank	106	108	102	97	104	108	108	106
MRL 380-236106/21-A	Lab Control Sample	115	115	112	104	111	112	110	108

#### 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: 380-221335-1  
SDG: PFAS: Ka'amilo Wells P1

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

**Lab Sample ID: MBL 380-236106/20-A**  
**Matrix: Water**  
**Analysis Batch: 236284**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 236106**

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosfluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		06/25/26 06:21	06/26/26 02:12	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		06/25/26 06:21	06/26/26 02:12	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		06/25/26 06:21	06/26/26 02:12	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		06/25/26 06:21	06/26/26 02:12	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		06/25/26 06:21	06/26/26 02:12	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		06/25/26 06:21	06/26/26 02:12	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		06/25/26 06:21	06/26/26 02:12	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		06/25/26 06:21	06/26/26 02:12	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		06/25/26 06:21	06/26/26 02:12	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		06/25/26 06:21	06/26/26 02:12	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		06/25/26 06:21	06/26/26 02:12	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		06/25/26 06:21	06/26/26 02:12	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		06/25/26 06:21	06/26/26 02:12	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		06/25/26 06:21	06/26/26 02:12	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		06/25/26 06:21	06/26/26 02:12	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		06/25/26 06:21	06/26/26 02:12	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		06/25/26 06:21	06/26/26 02:12	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		06/25/26 06:21	06/26/26 02:12	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		06/25/26 06:21	06/26/26 02:12	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<0.25		2.0	ng/L		06/25/26 06:21	06/26/26 02:12	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		06/25/26 06:21	06/26/26 02:12	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		06/25/26 06:21	06/26/26 02:12	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		06/25/26 06:21	06/26/26 02:12	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		06/25/26 06:21	06/26/26 02:12	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		06/25/26 06:21	06/26/26 02:12	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	98		50 - 200	06/25/26 06:21	06/26/26 02:12	1
13C6 PFDA	108		50 - 200	06/25/26 06:21	06/26/26 02:12	1
13C5 PFHxA	106		50 - 200	06/25/26 06:21	06/26/26 02:12	1
13C4 PFHpA	107		50 - 200	06/25/26 06:21	06/26/26 02:12	1
13C8 PFOA	109		50 - 200	06/25/26 06:21	06/26/26 02:12	1
13C9 PFNA	108		50 - 200	06/25/26 06:21	06/26/26 02:12	1
13C7 PFUnA	106		50 - 200	06/25/26 06:21	06/26/26 02:12	1
13C2 PFDoA	107		50 - 200	06/25/26 06:21	06/26/26 02:12	1
13C4 PFBA	106		50 - 200	06/25/26 06:21	06/26/26 02:12	1
13C5 PFPeA	108		50 - 200	06/25/26 06:21	06/26/26 02:12	1
13C3 PFBS	102		50 - 200	06/25/26 06:21	06/26/26 02:12	1
13C3 PFHxS	97		50 - 200	06/25/26 06:21	06/26/26 02:12	1

Eurofins Pomona

# QC Sample Results

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

Job ID: 380-221335-1  
SDG: PFAS: Ka'amilo Wells P1

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

**Lab Sample ID: MBL 380-236106/20-A**  
**Matrix: Water**  
**Analysis Batch: 236284**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 236106**

<i>Isotope Dilution</i>	<i>MBL %Recovery</i>	<i>MBL Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C8 PFOS	104		50 - 200	06/25/26 06:21	06/26/26 02:12	1
13C2-4:2-FTS	108		50 - 200	06/25/26 06:21	06/26/26 02:12	1
13C2-6:2-FTS	108		50 - 200	06/25/26 06:21	06/26/26 02:12	1
13C2-8:2-FTS	106		50 - 200	06/25/26 06:21	06/26/26 02:12	1

**Lab Sample ID: LCS 380-236106/22-A**  
**Matrix: Water**  
**Analysis Batch: 236284**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 236106**

<i>Analyte</i>	<i>Spike Added</i>	<i>LCS Result</i>	<i>LCS Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec Limits</i>
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	121	101		ng/L		83	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	121	98.7		ng/L		82	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	121	99.4		ng/L		82	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	121	102		ng/L		84	70 - 130
Perfluorobutanesulfonic acid (PFBS)	121	101		ng/L		83	70 - 130
Perfluorodecanoic acid (PFDA)	121	101		ng/L		83	70 - 130
Perfluorododecanoic acid (PFDoA)	121	101		ng/L		84	70 - 130
Perfluoroheptanoic acid (PFHpA)	121	101		ng/L		84	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	121	113		ng/L		94	70 - 130
Perfluorohexanoic acid (PFHxA)	121	105		ng/L		87	70 - 130
Perfluorononanoic acid (PFNA)	121	100		ng/L		83	70 - 130
Perfluorooctanesulfonic acid (PFOS)	121	102		ng/L		84	70 - 130
Perfluorooctanoic acid (PFOA)	121	101		ng/L		83	70 - 130
Perfluoroundecanoic acid (PFUnA)	121	103		ng/L		85	70 - 130
Perfluorobutanoic acid (PFBA)	121	106		ng/L		88	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	121	105		ng/L		87	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	121	104		ng/L		86	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	121	102		ng/L		85	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	121	105		ng/L		87	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	121	104		ng/L		86	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	121	102		ng/L		84	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	121	104		ng/L		86	70 - 130
Perfluoropentanoic acid (PFPeA)	121	105		ng/L		87	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	121	103		ng/L		85	70 - 130

# QC Sample Results

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

Job ID: 380-221335-1  
SDG: PFAS: Ka'amilo Wells P1

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

**Lab Sample ID: LCS 380-236106/22-A**  
**Matrix: Water**  
**Analysis Batch: 236284**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 236106**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	121	112		ng/L		93	70 - 130
<b>LCS LCS</b>							
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				
13C3 HFPO-DA	117		50 - 200				
13C6 PFDA	121		50 - 200				
13C5 PFHxA	115		50 - 200				
13C4 PFHpA	119		50 - 200				
13C8 PFOA	118		50 - 200				
13C9 PFNA	118		50 - 200				
13C7 PFUnA	119		50 - 200				
13C2 PFDoA	122		50 - 200				
13C4 PFBA	116		50 - 200				
13C5 PFPeA	118		50 - 200				
13C3 PFBS	116		50 - 200				
13C3 PFHxS	106		50 - 200				
13C8 PFOS	115		50 - 200				
13C2-4:2-FTS	109		50 - 200				
13C2-6:2-FTS	108		50 - 200				
13C2-8:2-FTS	110		50 - 200				

**Lab Sample ID: MRL 380-236106/21-A**  
**Matrix: Water**  
**Analysis Batch: 236284**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 236106**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafuoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.80	J	ng/L		90	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	1.72	J	ng/L		86	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	1.78	J	ng/L		88	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	1.86	J	ng/L		93	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	1.85	J	ng/L		92	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	1.93	J	ng/L		96	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	1.99	J	ng/L		99	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	1.79	J	ng/L		89	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	1.98	J	ng/L		98	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	1.86	J	ng/L		92	50 - 150
Perfluorononanoic acid (PFNA)	2.01	1.86	J	ng/L		92	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	1.87	J	ng/L		93	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	1.86	J	ng/L		93	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	1.96	J	ng/L		97	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	1.88	J	ng/L		93	50 - 150

Eurofins Pomona

# QC Sample Results

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

Job ID: 380-221335-1  
SDG: PFAS: Ka'amilo Wells P1

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

**Lab Sample ID: MRL 380-236106/21-A**  
**Matrix: Water**  
**Analysis Batch: 236284**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 236106**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	1.89	J	ng/L		94	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	1.95	J	ng/L		97	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	1.96	J	ng/L		98	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	1.81	J	ng/L		90	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.01	1.80	J	ng/L		89	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	1.72	J	ng/L		85	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	1.77	J	ng/L		88	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	1.86	J	ng/L		93	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.01	1.75	J	ng/L		87	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	1.87	J	ng/L		93	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	106		50 - 200
13C6 PFDA	118		50 - 200
13C5 PFHxA	111		50 - 200
13C4 PFHpA	115		50 - 200
13C8 PFOA	117		50 - 200
13C9 PFNA	116		50 - 200
13C7 PFUnA	116		50 - 200
13C2 PFDoA	117		50 - 200
13C4 PFBA	115		50 - 200
13C5 PFPeA	115		50 - 200
13C3 PFBS	112		50 - 200
13C3 PFHxS	104		50 - 200
13C8 PFOS	111		50 - 200
13C2-4:2-FTS	112		50 - 200
13C2-6:2-FTS	110		50 - 200
13C2-8:2-FTS	108		50 - 200

**Lab Sample ID: 380-220780-B-1-B MS**  
**Matrix: Water**  
**Analysis Batch: 236284**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 236106**

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		120	106		ng/L		88	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		120	103		ng/L		85	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		120	104		ng/L		87	70 - 130

# QC Sample Results

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

Job ID: 380-221335-1  
SDG: PFAS: Ka'amilo Wells P1

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

**Lab Sample ID: 380-220780-B-1-B MS**  
**Matrix: Water**  
**Analysis Batch: 236284**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 236106**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	<2.0		120	106		ng/L		88	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorobutanesulfonic acid (PFBS)	<2.0		120	107		ng/L		89	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		120	106		ng/L		88	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		120	104		ng/L		87	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		120	105		ng/L		87	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		120	113		ng/L		94	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		120	107		ng/L		89	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		120	105		ng/L		87	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		120	105		ng/L		87	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		120	101		ng/L		84	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		120	103		ng/L		86	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		120	108		ng/L		90	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		120	107		ng/L		89	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		120	106		ng/L		88	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		120	101		ng/L		84	70 - 130
Nonafluoro-3,6-dioxahexanoic acid (NFDHA)	<2.0		120	103		ng/L		86	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		120	107		ng/L		89	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		120	105		ng/L		87	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		120	103		ng/L		86	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		120	107		ng/L		89	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		120	106		ng/L		88	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		120	115		ng/L		96	70 - 130

Isotope Dilution	MS MS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	102		50 - 200
13C6 PFDA	107		50 - 200
13C5 PFHxA	104		50 - 200
13C4 PFHpA	105		50 - 200
13C8 PFOA	107		50 - 200
13C9 PFNA	106		50 - 200
13C7 PFUnA	109		50 - 200
13C2 PFDoA	111		50 - 200
13C4 PFBA	109		50 - 200
13C5 PFPeA	105		50 - 200
13C3 PFBS	106		50 - 200
13C3 PFHxS	102		50 - 200
13C8 PFOS	108		50 - 200

# QC Sample Results

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

Job ID: 380-221335-1  
SDG: PFAS: Ka'amilo Wells P1

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

**Lab Sample ID: 380-220780-B-1-B MS**  
**Matrix: Water**  
**Analysis Batch: 236284**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 236106**

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
13C2-4:2-FTS	106		50 - 200
13C2-6:2-FTS	111		50 - 200
13C2-8:2-FTS	104		50 - 200

**Lab Sample ID: 380-220780-B-1-C MSD**  
**Matrix: Water**  
**Analysis Batch: 236284**

**Client Sample ID: Matrix Spike Duplicate**  
**Prep Type: Total/NA**  
**Prep Batch: 236106**

<b>Analyte</b>	<b>Sample Result</b>	<b>Sample Qualifier</b>	<b>Spike Added</b>	<b>MSD Result</b>	<b>MSD Qualifier</b>	<b>Unit</b>	<b>D</b>	<b>%Rec</b>	<b>%Rec Limits</b>	<b>RPD</b>	<b>RPD Limit</b>
11-Chloroeicosfluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		120	104		ng/L		86	70 - 130	2	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		120	103		ng/L		85	70 - 130	0	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		120	106		ng/L		88	70 - 130	2	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		120	107		ng/L		89	70 - 130	2	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		120	112		ng/L		93	70 - 130	4	30
Perfluorodecanoic acid (PFDA)	<2.0		120	109		ng/L		90	70 - 130	2	30
Perfluorododecanoic acid (PFDoA)	<2.0		120	106		ng/L		88	70 - 130	1	30
Perfluoroheptanoic acid (PFHpA)	<2.0		120	105		ng/L		87	70 - 130	0	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		120	115		ng/L		95	70 - 130	2	30
Perfluorohexanoic acid (PFHxA)	<2.0		120	111		ng/L		92	70 - 130	4	30
Perfluorononanoic acid (PFNA)	<2.0		120	105		ng/L		87	70 - 130	0	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		120	107		ng/L		88	70 - 130	2	30
Perfluorooctanoic acid (PFOA)	<2.0		120	103		ng/L		86	70 - 130	2	30
Perfluoroundecanoic acid (PFUnA)	<2.0		120	107		ng/L		89	70 - 130	3	30
Perfluorobutanoic acid (PFBA)	<2.0		120	110		ng/L		91	70 - 130	2	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		120	111		ng/L		92	70 - 130	3	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		120	107		ng/L		89	70 - 130	1	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		120	105		ng/L		87	70 - 130	4	30
Nonfluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		120	106		ng/L		88	70 - 130	3	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		120	112		ng/L		93	70 - 130	4	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		120	101		ng/L		84	70 - 130	4	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		120	100		ng/L		83	70 - 130	3	30
Perfluoropentanoic acid (PFPeA)	<2.0		120	99.8		ng/L		83	70 - 130	7	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		120	104		ng/L		87	70 - 130	2	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		120	115		ng/L		95	70 - 130	0	30

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# QC Sample Results

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

Job ID: 380-221335-1  
SDG: PFAS: Ka'amilo Wells P1

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

<i>Isotope Dilution</i>	<i>MSD</i>	<i>MSD</i>	<i>Limits</i>
<i>%Recovery</i>	<i>Qualifier</i>		
13C3 HFPO-DA	104		50 - 200
13C6 PFDA	111		50 - 200
13C5 PFHxA	103		50 - 200
13C4 PFHpA	106		50 - 200
13C8 PFOA	106		50 - 200
13C9 PFNA	110		50 - 200
13C7 PFUnA	111		50 - 200
13C2 PFDoA	113		50 - 200
13C4 PFBA	106		50 - 200
13C5 PFPeA	108		50 - 200
13C3 PFBS	105		50 - 200
13C3 PFHxS	101		50 - 200
13C8 PFOS	108		50 - 200
13C2-4:2-FTS	105		50 - 200
13C2-6:2-FTS	104		50 - 200
13C2-8:2-FTS	102		50 - 200

## Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020

**Lab Sample ID: MBL 380-236104/19-A**  
**Matrix: Water**  
**Analysis Batch: 236281**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 236104**

<i>Analyte</i>	<i>MBL</i>	<i>MBL</i>	<i>RL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
	<i>Result</i>	<i>Qualifier</i>						
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		06/25/26 10:00	06/25/26 18:40	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		06/25/26 10:00	06/25/26 18:40	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		06/25/26 10:00	06/25/26 18:40	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		06/25/26 10:00	06/25/26 18:40	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		06/25/26 10:00	06/25/26 18:40	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		06/25/26 10:00	06/25/26 18:40	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		06/25/26 10:00	06/25/26 18:40	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		06/25/26 10:00	06/25/26 18:40	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		06/25/26 10:00	06/25/26 18:40	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		06/25/26 10:00	06/25/26 18:40	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		06/25/26 10:00	06/25/26 18:40	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		06/25/26 10:00	06/25/26 18:40	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		06/25/26 10:00	06/25/26 18:40	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		06/25/26 10:00	06/25/26 18:40	1
Perfluorotridecanoic acid (PFTrDA)	<0.36		2.0	ng/L		06/25/26 10:00	06/25/26 18:40	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0	ng/L		06/25/26 10:00	06/25/26 18:40	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		06/25/26 10:00	06/25/26 18:40	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		06/25/26 10:00	06/25/26 18:40	1
<i>Surrogate</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>						
d5-NEtFOSAA	99		70 - 130			06/25/26 10:00	06/25/26 18:40	1
13C2 PFHxA	99		70 - 130			06/25/26 10:00	06/25/26 18:40	1
13C2 PFDA	99		70 - 130			06/25/26 10:00	06/25/26 18:40	1

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# QC Sample Results

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

Job ID: 380-221335-1  
SDG: PFAS: Ka'amilo Wells P1

## Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020 (Continued)

**Lab Sample ID: MBL 380-236104/19-A**  
**Matrix: Water**  
**Analysis Batch: 236281**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 236104**

<i>Surrogate</i>	<i>MBL</i>	<i>MBL</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C3-GenX	83	Qualifier	70 - 130	06/25/26 10:00	06/25/26 18:40	1

**Lab Sample ID: LCS 380-236104/21-A**  
**Matrix: Water**  
**Analysis Batch: 236281**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 236104**

<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>Limits</i>
	<i>Added</i>	<i>Result</i>	<i>Qualifier</i>					
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	50.3	47.7		ng/L		95		70 - 130
Perfluorooctanesulfonic acid (PFOS)	50.3	49.9		ng/L		99		70 - 130
Perfluoroundecanoic acid (PFUnA)	50.3	52.3		ng/L		104		70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	50.3	48.9		ng/L		97		70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	50.3	49.6		ng/L		99		70 - 130
Perfluorohexanoic acid (PFHxA)	50.3	48.3		ng/L		96		70 - 130
Perfluorododecanoic acid (PFDoA)	50.3	49.3		ng/L		98		70 - 130
Perfluorooctanoic acid (PFOA)	50.3	51.9		ng/L		103		70 - 130
Perfluorodecanoic acid (PFDA)	50.3	52.0		ng/L		103		70 - 130
Perfluorohexanesulfonic acid (PFHxS)	50.3	53.3		ng/L		106		70 - 130
Perfluorobutanesulfonic acid (PFBS)	50.3	49.4		ng/L		98		70 - 130
Perfluoroheptanoic acid (PFHpA)	50.3	52.9		ng/L		105		70 - 130
Perfluorononanoic acid (PFNA)	50.3	53.0		ng/L		105		70 - 130
Perfluorotetradecanoic acid (PFTA)	50.3	45.5		ng/L		90		70 - 130
Perfluorotridecanoic acid (PFTrDA)	50.3	49.8		ng/L		99		70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	50.3	48.8		ng/L		97		70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	50.3	47.7		ng/L		95		70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	50.3	49.3		ng/L		98		70 - 130

<i>Surrogate</i>	<i>LCS</i>	<i>LCS</i>	<i>Limits</i>
	<i>%Recovery</i>	<i>Qualifier</i>	
d5-NEtFOSAA	102		70 - 130
13C2 PFHxA	110		70 - 130
13C2 PFDA	107		70 - 130
13C3-GenX	103		70 - 130

# QC Sample Results

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

Job ID: 380-221335-1  
SDG: PFAS: Ka'amilo Wells P1

## Method: EPA 537.1 V2 - EPA 537.1 Ver. 2.0 March 2020 (Continued)

**Lab Sample ID: MRL 380-236104/20-A**  
**Matrix: Water**  
**Analysis Batch: 236281**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 236104**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	1.66	J	ng/L		82	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	1.91	J	ng/L		95	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.00	J	ng/L		99	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.01	1.87	J	ng/L		93	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.01	2.01	J	ng/L		100	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	1.87	J	ng/L		93	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	1.89	J	ng/L		94	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	1.98	J	ng/L		99	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.11	J	ng/L		105	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	1.98	J	ng/L		98	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.00	J	ng/L		100	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	1.95	J	ng/L		97	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.06	J	ng/L		103	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.01	1.93	J	ng/L		96	50 - 150
Perfluorotridecanoic acid (PFTTrDA)	2.01	2.13	J	ng/L		106	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	1.91	J	ng/L		95	50 - 150
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.84	J	ng/L		92	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	1.79	J	ng/L		89	50 - 150

Surrogate	MRL %Recovery	MRL Qualifier	Limits
d5-NEtFOSAA	104		70 - 130
13C2 PFHxA	96		70 - 130
13C2 PFDA	105		70 - 130
13C3-GenX	94		70 - 130

**Lab Sample ID: 380-221319-F-1-A MS**  
**Matrix: Water**  
**Analysis Batch: 236281**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**  
**Prep Batch: 236104**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		25.2	23.9		ng/L		95	70 - 130
Perfluorooctanesulfonic acid (PFOS)	2.8		25.2	28.2		ng/L		101	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		25.2	26.9		ng/L		107	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.2	26.1		ng/L		104	70 - 130

Eurofins Pomona





# QC Association Summary

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

Job ID: 380-221335-1  
SDG: PFAS: Ka'amilo Wells P1

## LCMS

### Prep Batch: 236104

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-221335-1	Ka'amilo Wells P1 (331-031-WL008)	Total/NA	Water	537.1 DW	
380-221335-2	FB: Ka'amilo Wells P1 (331-031-WL008)	Total/NA	Water	537.1 DW	
MBL 380-236104/19-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-236104/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-236104/20-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-221319-F-1-A MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-221319-G-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

### Prep Batch: 236106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-221335-1	Ka'amilo Wells P1 (331-031-WL008)	Total/NA	Water	533	
380-221335-2	FB: Ka'amilo Wells P1 (331-031-WL008)	Total/NA	Water	533	
MBL 380-236106/20-A	Method Blank	Total/NA	Water	533	
LCS 380-236106/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-236106/21-A	Lab Control Sample	Total/NA	Water	533	
380-220780-B-1-B MS	Matrix Spike	Total/NA	Water	533	
380-220780-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	533	

### Analysis Batch: 236281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-221335-1	Ka'amilo Wells P1 (331-031-WL008)	Total/NA	Water	EPA 537.1 V2	236104
380-221335-2	FB: Ka'amilo Wells P1 (331-031-WL008)	Total/NA	Water	EPA 537.1 V2	236104
MBL 380-236104/19-A	Method Blank	Total/NA	Water	EPA 537.1 V2	236104
LCS 380-236104/21-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	236104
MRL 380-236104/20-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	236104
380-221319-F-1-A MS	Matrix Spike	Total/NA	Water	EPA 537.1 V2	236104
380-221319-G-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	EPA 537.1 V2	236104

### Analysis Batch: 236284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-221335-1	Ka'amilo Wells P1 (331-031-WL008)	Total/NA	Water	533	236106
380-221335-2	FB: Ka'amilo Wells P1 (331-031-WL008)	Total/NA	Water	533	236106
MBL 380-236106/20-A	Method Blank	Total/NA	Water	533	236106
LCS 380-236106/22-A	Lab Control Sample	Total/NA	Water	533	236106
MRL 380-236106/21-A	Lab Control Sample	Total/NA	Water	533	236106
380-220780-B-1-B MS	Matrix Spike	Total/NA	Water	533	236106
380-220780-B-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	533	236106

# Lab Chronicle

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

Job ID: 380-221335-1  
 SDG: PFAS: Ka'amilo Wells P1

**Client Sample ID: Ka'amilo Wells P1 (331-031-WL008)**

**Lab Sample ID: 380-221335-1**

**Date Collected: 06/22/26 11:45**

**Matrix: Water**

**Date Received: 06/24/26 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			236106	XTD8	EA POM	06/25/26 06:21
Total/NA	Analysis	533		1	236284	Y5FM	EA POM	06/26/26 05:54
Total/NA	Prep	537.1 DW			236104	LM3A	EA POM	06/25/26 10:00
Total/NA	Analysis	EPA 537.1 V2		1	236281	SZ9R	EA POM	06/25/26 20:47

**Client Sample ID: FB: Ka'amilo Wells P1 (331-031-WL008)**

**Lab Sample ID: 380-221335-2**

**Date Collected: 06/22/26 11:45**

**Matrix: Water**

**Date Received: 06/24/26 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			236106	XTD8	EA POM	06/25/26 06:21
Total/NA	Analysis	533		1	236284	Y5FM	EA POM	06/26/26 06:04
Total/NA	Prep	537.1 DW			236104	LM3A	EA POM	06/25/26 10:00
Total/NA	Analysis	EPA 537.1 V2		1	236281	SZ9R	EA POM	06/25/26 20:57

**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: 380-221335-1  
SDG: PFAS: Ka'amilo 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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- 10
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- 12
- 13
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- 15
- 16
- 17

\* Accreditation/Certification renewal pending - accreditation/certification considered valid.

# Method Summary

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

Job ID: 380-221335-1  
SDG: PFAS: Ka'amilo Wells P1

Method	Method Description	Protocol	Laboratory
533	Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water	EPA	EA POM
EPA 537.1 V2	EPA 537.1 Ver. 2.0 March 2020	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: 380-221335-1  
SDG: PFAS: Ka'amilo Wells P1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-221335-1	Ka'amilo Wells P1 (331-031-WL008)	Water	06/22/26 11:45	06/24/26 09:30	Hawaii
380-221335-2	FB: Ka'amilo Wells P1 (331-031-WL008)	Water	06/22/26 11:45	06/24/26 09:30	Hawaii

- 1
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**Monrovia, CA (Suite 100)**

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

**Chain of Custody Record**



Environment Testing  
 America

<b>Client Information</b>		Sampler bailey		Lab PM Lopez, Maria		Carrier Tracking No(s).		COC No.	
Client Contact: kirk iwamoto		Phone +1 808 748 5840		E-Mail Maria.Lopez@et.euronisus.com		State of Origin:		Page:	
Company City & County of Honolulu				PWSID:		<b>Analysis Requested</b>			
Address 830 South Beretania Street, Chemistry Lab		Due Date Requested.		Field Filtered Sample (Yes or No) <input type="checkbox"/> Performed MS/MSD (Yes or No) <input type="checkbox"/> SUBCONTRACT - 625 PAH Physis LL (EAL) + TICs 8015B_GRO_LL - (MOD) GRO 8015B_DRO_LL_CS - HNL Ranges. C10-C24/C24-C36/C8-C18 525.2_PREC - (MOD) 525plus PLUS TICs 537 1_DW_PREC - 537 1 Full List 533 - All Analytes		Total Number of Containers 380-221335 COC		Job #: Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Y - Trizma Z - other (specify)	
City Honolulu		TAT Requested (days): RUSH							
State, Zip: HI, 96843		Compliance Project: <input type="checkbox"/> No							
Phone 808-748-5840 (tel)		PO #: C20525101 exp 05312023							
Email: kiwamoto@hbws.org		WO #:							
Project Name: RED-HILL/HBWS sites Event Desc: RUSH Weekly Red Hill		Project #: 38001111		Special Instructions/Note:					
Site:		SSOW#							
<b>Sample Identification</b>		<b>Sample Date</b>		<b>Sample Time</b>		<b>Sample Type (C=Comp, G=grab)</b>		<b>Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)</b>	
Ka'amilo Wells P1 (331-031-WL008)		22-Jun-2026		1145		G		Water	
FB: Ka'amilo Wells P1 (331-031-WL008)		22-Jun-2026		1145				Water	
<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>		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Deliverable Requested I, II, III, IV, Other (specify)	
Empty Kit Relinquished by		Date		Time		Method of Shipment.		Special Instructions/QC Requirements	
Relinquished by		Date/Time: 23 JUN 2026 1100		Company: HBWS		Received by: [Signature]		Date/Time: 6/24/26 0930	
Relinquished by		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact. <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.		Cooler Temperature(s) °C and Other Remarks.		5.6 ± 0.0 = 5.6 °C (63.1A)			

## Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-221335-1  
SDG Number: PFAS: Ka'amilo Wells P1

**Login Number: 221335**

**List Number: 1**

**Creator: Del Rosario, Michael**

**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").	N/A	
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	

