

ANALYTICAL REPORT

PREPARED FOR

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

Generated 6/19/2026 2:38:16 PM

JOB DESCRIPTION

RED-HILL
PFAS: Ka'amilo Wells P1

JOB NUMBER

380-219601-1

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
(626)386-1100

Generated
6/19/2026 2:38:16 PM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Action Limit Summary	11
Surrogate Summary	12
Isotope Dilution Summary	13
QC Sample Results	14
QC Association Summary	31
Lab Chronicle	33
Certification Summary	34
Method Summary	35
Sample Summary	36
Chain of Custody	37
Receipt Checklists	38



Definitions/Glossary

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

Job ID: 380-219601-1
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: 380-219601-1

Job ID: 380-219601-1

Eurofins Pomona

Job Narrative 380-219601-1

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 6/12/2026 9:47 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 5.7°C.

PFAS

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

Eurofins Pomona

Detection Summary

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

Client Sample ID: KA'AMILO WELLS P1 (331-031-WL008)

Lab Sample ID: 380-219601-1

PWSID Number: HI0000331

Analyte	Result	Qualifier	RL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanesulfonic acid (PFBS)	3.0		2.0	ng/L	1		533	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.1		2.0	ng/L	1		533	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.6		2.0	ng/L	1		533	Total/NA
Perfluorohexanoic acid (PFHxA)	4.0		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)	4.3		2.0	ng/L	1		533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	5.4		2.0	ng/L	1		EPA 537.1 V2	Total/NA
Perfluorohexanoic acid (PFHxA)	4.5		2.0	ng/L	1		EPA 537.1 V2	Total/NA
Perfluorooctanoic acid (PFOA)	4.8		2.0	ng/L	1		EPA 537.1 V2	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.8		2.0	ng/L	1		EPA 537.1 V2	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.5		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: 380-219601-2

PWSID Number: HI0000331

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Pomona

Client Sample Results

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

Client Sample ID: KA'AMILO WELLS P1 (331-031-WL008)

Lab Sample ID: 380-219601-1

Date Collected: 06/09/26 10:15

Matrix: Water

Date Received: 06/12/26 09:47

PWSID Number: HI0000331

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecan e-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		06/17/26 16:35	06/18/26 16:16	1
9-Chlorohexadecafluoro-3-oxanonan e-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/17/26 16:35	06/18/26 16:16	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/17/26 16:35	06/18/26 16:16	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		06/17/26 16:35	06/18/26 16:16	1
Perfluorobutanesulfonic acid (PFBS)	3.0		2.0	ng/L		06/17/26 16:35	06/18/26 16:16	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/17/26 16:35	06/18/26 16:16	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/17/26 16:35	06/18/26 16:16	1
Perfluoroheptanoic acid (PFHpA)	2.1		2.0	ng/L		06/17/26 16:35	06/18/26 16:16	1
Perfluorohexanesulfonic acid (PFHxS)	3.6		2.0	ng/L		06/17/26 16:35	06/18/26 16:16	1
Perfluorohexanoic acid (PFHxA)	4.0		2.0	ng/L		06/17/26 16:35	06/18/26 16:16	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/17/26 16:35	06/18/26 16:16	1
Perfluorooctanesulfonic acid (PFOS)	4.7		2.0	ng/L		06/17/26 16:35	06/18/26 16:16	1
Perfluorooctanoic acid (PFOA)	3.9		2.0	ng/L		06/17/26 16:35	06/18/26 16:16	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/17/26 16:35	06/18/26 16:16	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		06/17/26 16:35	06/18/26 16:16	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		06/17/26 16:35	06/18/26 16:16	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		06/17/26 16:35	06/18/26 16:16	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		06/17/26 16:35	06/18/26 16:16	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		06/17/26 16:35	06/18/26 16:16	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		06/17/26 16:35	06/18/26 16:16	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		06/17/26 16:35	06/18/26 16:16	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		06/17/26 16:35	06/18/26 16:16	1
Perfluoropentanoic acid (PFPeA)	4.3		2.0	ng/L		06/17/26 16:35	06/18/26 16:16	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		06/17/26 16:35	06/18/26 16:16	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		06/17/26 16:35	06/18/26 16:16	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	105		50 - 200			06/17/26 16:35	06/18/26 16:16	1
13C6 PFDA	99		50 - 200			06/17/26 16:35	06/18/26 16:16	1
13C5 PFHxA	103		50 - 200			06/17/26 16:35	06/18/26 16:16	1
13C4 PFHpA	104		50 - 200			06/17/26 16:35	06/18/26 16:16	1
13C8 PFOA	106		50 - 200			06/17/26 16:35	06/18/26 16:16	1
13C9 PFNA	109		50 - 200			06/17/26 16:35	06/18/26 16:16	1
13C7 PFUnA	105		50 - 200			06/17/26 16:35	06/18/26 16:16	1
13C2 PFDoA	102		50 - 200			06/17/26 16:35	06/18/26 16:16	1
13C4 PFBA	111		50 - 200			06/17/26 16:35	06/18/26 16:16	1
13C5 PFPeA	110		50 - 200			06/17/26 16:35	06/18/26 16:16	1
13C3 PFBS	111		50 - 200			06/17/26 16:35	06/18/26 16:16	1

Eurofins Pomona

Client Sample Results

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

Client Sample ID: KA'AMILO WELLS P1 (331-031-WL008)

Lab Sample ID: 380-219601-1

Date Collected: 06/09/26 10:15

Matrix: Water

Date Received: 06/12/26 09:47

PWSID Number: HI0000331

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFHxS	112		50 - 200	06/17/26 16:35	06/18/26 16:16	1
13C8 PFOS	115		50 - 200	06/17/26 16:35	06/18/26 16:16	1
13C2-4:2-FTS	126		50 - 200	06/17/26 16:35	06/18/26 16:16	1
13C2-6:2-FTS	116		50 - 200	06/17/26 16:35	06/18/26 16:16	1
13C2-8:2-FTS	112		50 - 200	06/17/26 16:35	06/18/26 16:16	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		06/15/26 10:00	06/15/26 22:42	1
Perfluorooctanesulfonic acid (PFOS)	5.4		2.0	ng/L		06/15/26 10:00	06/15/26 22:42	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/15/26 10:00	06/15/26 22:42	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		06/15/26 10:00	06/15/26 22:42	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		06/15/26 10:00	06/15/26 22:42	1
Perfluorohexanoic acid (PFHxA)	4.5		2.0	ng/L		06/15/26 10:00	06/15/26 22:42	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/15/26 10:00	06/15/26 22:42	1
Perfluorooctanoic acid (PFOA)	4.8		2.0	ng/L		06/15/26 10:00	06/15/26 22:42	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/15/26 10:00	06/15/26 22:42	1
Perfluorohexanesulfonic acid (PFHxS)	3.8		2.0	ng/L		06/15/26 10:00	06/15/26 22:42	1
Perfluorobutanesulfonic acid (PFBS)	3.5		2.0	ng/L		06/15/26 10:00	06/15/26 22:42	1
Perfluoroheptanoic acid (PFHpA)	2.4		2.0	ng/L		06/15/26 10:00	06/15/26 22:42	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/15/26 10:00	06/15/26 22:42	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		06/15/26 10:00	06/15/26 22:42	1
Perfluorotridecanoic acid (PFTTrDA)	<2.0		2.0	ng/L		06/15/26 10:00	06/15/26 22:42	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/15/26 10:00	06/15/26 22:42	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		06/15/26 10:00	06/15/26 22:42	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/15/26 10:00	06/15/26 22:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	99		70 - 130			06/15/26 10:00	06/15/26 22:42	1
13C2 PFHxA	105		70 - 130			06/15/26 10:00	06/15/26 22:42	1
13C2 PFDA	113		70 - 130			06/15/26 10:00	06/15/26 22:42	1
13C3-GenX	101		70 - 130			06/15/26 10:00	06/15/26 22:42	1

Client Sample ID: FB KA'AMILO WELLS P1 (331-031-WL008)

Lab Sample ID: 380-219601-2

Date Collected: 06/09/26 10:15

Matrix: Water

Date Received: 06/12/26 09:47

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		06/14/26 13:44	06/15/26 10:50	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0	ng/L		06/14/26 13:44	06/15/26 10:50	1

Eurofins Pomona

Client Sample Results

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

Client Sample ID: FB KA'AMILO WELLS P1 (331-031-WL008)

Lab Sample ID: 380-219601-2

Date Collected: 06/09/26 10:15

Matrix: Water

Date Received: 06/12/26 09:47

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
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/14/26 13:44	06/15/26 10:50	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		2.0	ng/L		06/14/26 13:44	06/15/26 10:50	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/14/26 13:44	06/15/26 10:50	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/14/26 13:44	06/15/26 10:50	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/14/26 13:44	06/15/26 10:50	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/14/26 13:44	06/15/26 10:50	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		06/14/26 13:44	06/15/26 10:50	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		06/14/26 13:44	06/15/26 10:50	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/14/26 13:44	06/15/26 10:50	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		06/14/26 13:44	06/15/26 10:50	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		06/14/26 13:44	06/15/26 10:50	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/14/26 13:44	06/15/26 10:50	1
Perfluorobutanoic acid (PFBA)	<2.0		2.0	ng/L		06/14/26 13:44	06/15/26 10:50	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		2.0	ng/L		06/14/26 13:44	06/15/26 10:50	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		2.0	ng/L		06/14/26 13:44	06/15/26 10:50	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		2.0	ng/L		06/14/26 13:44	06/15/26 10:50	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		2.0	ng/L		06/14/26 13:44	06/15/26 10:50	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<2.0		2.0	ng/L		06/14/26 13:44	06/15/26 10:50	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		2.0	ng/L		06/14/26 13:44	06/15/26 10:50	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		2.0	ng/L		06/14/26 13:44	06/15/26 10:50	1
Perfluoropentanoic acid (PFPeA)	<2.0		2.0	ng/L		06/14/26 13:44	06/15/26 10:50	1
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		2.0	ng/L		06/14/26 13:44	06/15/26 10:50	1
Perfluoropentanesulfonic acid (PFPeS)	<2.0		2.0	ng/L		06/14/26 13:44	06/15/26 10:50	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	97		50 - 200	06/14/26 13:44	06/15/26 10:50	1
13C6 PFDA	105		50 - 200	06/14/26 13:44	06/15/26 10:50	1
13C5 PFHxA	103		50 - 200	06/14/26 13:44	06/15/26 10:50	1
13C4 PFHpA	105		50 - 200	06/14/26 13:44	06/15/26 10:50	1
13C8 PFOA	106		50 - 200	06/14/26 13:44	06/15/26 10:50	1
13C9 PFNA	116		50 - 200	06/14/26 13:44	06/15/26 10:50	1
13C7 PFUnA	105		50 - 200	06/14/26 13:44	06/15/26 10:50	1
13C2 PFDoA	110		50 - 200	06/14/26 13:44	06/15/26 10:50	1
13C4 PFBA	107		50 - 200	06/14/26 13:44	06/15/26 10:50	1
13C5 PFPeA	105		50 - 200	06/14/26 13:44	06/15/26 10:50	1
13C3 PFBS	105		50 - 200	06/14/26 13:44	06/15/26 10:50	1
13C3 PFHxS	107		50 - 200	06/14/26 13:44	06/15/26 10:50	1
13C8 PFOS	113		50 - 200	06/14/26 13:44	06/15/26 10:50	1
13C2-4:2-FTS	98		50 - 200	06/14/26 13:44	06/15/26 10:50	1
13C2-6:2-FTS	98		50 - 200	06/14/26 13:44	06/15/26 10:50	1
13C2-8:2-FTS	95		50 - 200	06/14/26 13:44	06/15/26 10:50	1

Eurofins Pomona

Client Sample Results

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

Client Sample ID: FB KA'AMILO WELLS P1 (331-031-WL008)

Lab Sample ID: 380-219601-2

Date Collected: 06/09/26 10:15

Matrix: Water

Date Received: 06/12/26 09:47

PWSID Number: HI0000331

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		06/15/26 10:00	06/16/26 00:07	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0	ng/L		06/15/26 10:00	06/16/26 00:07	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0	ng/L		06/15/26 10:00	06/16/26 00:07	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0	ng/L		06/15/26 10:00	06/16/26 00:07	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0	ng/L		06/15/26 10:00	06/16/26 00:07	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0	ng/L		06/15/26 10:00	06/16/26 00:07	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0	ng/L		06/15/26 10:00	06/16/26 00:07	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0	ng/L		06/15/26 10:00	06/16/26 00:07	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0	ng/L		06/15/26 10:00	06/16/26 00:07	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0	ng/L		06/15/26 10:00	06/16/26 00:07	1
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0	ng/L		06/15/26 10:00	06/16/26 00:07	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0	ng/L		06/15/26 10:00	06/16/26 00:07	1
Perfluorononanoic acid (PFNA)	<2.0		2.0	ng/L		06/15/26 10:00	06/16/26 00:07	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0	ng/L		06/15/26 10:00	06/16/26 00:07	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0	ng/L		06/15/26 10:00	06/16/26 00:07	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		2.0	ng/L		06/15/26 10:00	06/16/26 00:07	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0	ng/L		06/15/26 10:00	06/16/26 00:07	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0	ng/L		06/15/26 10:00	06/16/26 00:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	104		70 - 130	06/15/26 10:00	06/16/26 00:07	1
13C2 PFHxA	115		70 - 130	06/15/26 10:00	06/16/26 00:07	1
13C2 PFDA	110		70 - 130	06/15/26 10:00	06/16/26 00:07	1
13C3-GenX	106		70 - 130	06/15/26 10:00	06/16/26 00:07	1

Action Limit Summary

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

Client Sample ID: KA'AMILO WELLS P1 (331-031-WL008)

Lab Sample ID: 380-219601-1

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)	3.6		ng/L	10	2.0	533	Total/NA
Perfluorononanoic acid (PFNA)	<2.0		ng/L	10	2.0	533	Total/NA
Perfluorooctanesulfonic acid (PFOS)	4.7		ng/L	4	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
Perfluorooctanesulfonic acid (PFOS)	5.4		ng/L	4	2.0	EPA 537.1 V2	Total/NA
Perfluorooctanoic acid (PFOA)	4.8		ng/L	4	2.0	EPA 537.1 V2	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	3.8		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: 380-219601-2

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	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: 380-219601-1
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)
380-219601-1	KA'AMILO WELLS P1 (331-031-WL	99	105	113	101
380-219601-1 MS	KA'AMILO WELLS P1 (331-031-WL008)	106	109	111	110
380-219601-1 MSD	KA'AMILO WELLS P1 (331-031-WL008)	99	98	105	102
380-219601-2	FB KA'AMILO WELLS P1 (331-031-WL008)	104	115	110	106
LCS 380-233887/22-A	Lab Control Sample	100	111	108	103
MBL 380-233887/20-A	Method Blank	94	110	102	102
MRL 380-233887/21-A	Lab Control Sample	95	111	103	96
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: 380-219601-1
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)	PFDaA (50-200)
175-3955-B-1-A MS	Matrix Spike	107	102	110	106	108	110	106	106
175-3955-D-1-A MSD	Matrix Spike Duplicate	103	102	108	104	105	109	106	104
380-218705-B-1-A MS	Matrix Spike	85	92	91	91	95	102	100	103
380-218705-C-1-A MSD	Matrix Spike Duplicate	70	63	73	75	71	69	71	75
380-219601-1	KA'AMILO WELLS P1 (331-031-WL008)	105	99	103	104	106	109	105	102
380-219601-2	FB KA'AMILO WELLS P1 (331-031-WL008)	97	105	103	105	106	116	105	110
LCS 380-233714/22-A	Lab Control Sample	101	109	102	102	102	115	112	122
LCS 380-234517/22-A	Lab Control Sample	102	106	112	108	109	113	107	112
MBL 380-233714/20-A	Method Blank	95	105	97	103	114	112	107	120
MBL 380-234517/20-A	Method Blank	106	100	111	111	111	111	106	106
MRL 380-233714/21-A	Lab Control Sample	91	97	93	96	97	108	107	108
MRL 380-234517/21-A	Lab Control Sample	100	104	111	108	111	113	109	105
		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)
175-3955-B-1-A MS	Matrix Spike	111	108	109	106	114	110	103	108
175-3955-D-1-A MSD	Matrix Spike Duplicate	108	105	111	111	114	124	109	107
380-218705-B-1-A MS	Matrix Spike	97	91	104	105	114	102	101	103
380-218705-C-1-A MSD	Matrix Spike Duplicate	86	77	98	103	106	95	99	100
380-219601-1	KA'AMILO WELLS P1 (331-031-WL008)	111	110	111	112	115	126	116	112
380-219601-2	FB KA'AMILO WELLS P1 (331-031-WL008)	107	105	105	107	113	98	98	95
LCS 380-233714/22-A	Lab Control Sample	101	92	112	113	119	102	104	109
LCS 380-234517/22-A	Lab Control Sample	109	106	110	110	114	115	105	110
MBL 380-233714/20-A	Method Blank	109	100	117	119	128	112	118	116
MBL 380-234517/20-A	Method Blank	110	108	110	112	110	119	115	111
MRL 380-233714/21-A	Lab Control Sample	101	95	113	107	122	109	107	108
MRL 380-234517/21-A	Lab Control Sample	110	105	105	106	113	111	109	105

Surrogate Legend

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

QC Sample Results

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

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

Lab Sample ID: MBL 380-233714/20-A

Matrix: Water

Analysis Batch: 233869

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 233714

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11CI-PF3OUdS)	<0.30		2.0	ng/L		06/14/26 13:44	06/15/26 06:53	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9CI-PF3ONS)	<0.30		2.0	ng/L		06/14/26 13:44	06/15/26 06:53	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		06/14/26 13:44	06/15/26 06:53	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		06/14/26 13:44	06/15/26 06:53	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		06/14/26 13:44	06/15/26 06:53	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		06/14/26 13:44	06/15/26 06:53	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		06/14/26 13:44	06/15/26 06:53	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		06/14/26 13:44	06/15/26 06:53	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		06/14/26 13:44	06/15/26 06:53	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		06/14/26 13:44	06/15/26 06:53	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		06/14/26 13:44	06/15/26 06:53	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		06/14/26 13:44	06/15/26 06:53	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		06/14/26 13:44	06/15/26 06:53	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		06/14/26 13:44	06/15/26 06:53	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		06/14/26 13:44	06/15/26 06:53	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<0.38		2.0	ng/L		06/14/26 13:44	06/15/26 06:53	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<0.37		2.0	ng/L		06/14/26 13:44	06/15/26 06:53	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<0.48		2.0	ng/L		06/14/26 13:44	06/15/26 06:53	1
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<0.47		2.0	ng/L		06/14/26 13:44	06/15/26 06:53	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<0.25		2.0	ng/L		06/14/26 13:44	06/15/26 06:53	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<0.46		2.0	ng/L		06/14/26 13:44	06/15/26 06:53	1
Perfluoro-4-methoxybutanoic acid (PFMBA)	<0.15		2.0	ng/L		06/14/26 13:44	06/15/26 06:53	1
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		06/14/26 13:44	06/15/26 06:53	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		06/14/26 13:44	06/15/26 06:53	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		06/14/26 13:44	06/15/26 06:53	1

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	95		50 - 200	06/14/26 13:44	06/15/26 06:53	1
13C6 PFDA	105		50 - 200	06/14/26 13:44	06/15/26 06:53	1
13C5 PFHxA	97		50 - 200	06/14/26 13:44	06/15/26 06:53	1
13C4 PFHpA	103		50 - 200	06/14/26 13:44	06/15/26 06:53	1
13C8 PFOA	114		50 - 200	06/14/26 13:44	06/15/26 06:53	1
13C9 PFNA	112		50 - 200	06/14/26 13:44	06/15/26 06:53	1
13C7 PFUnA	107		50 - 200	06/14/26 13:44	06/15/26 06:53	1
13C2 PFDoA	120		50 - 200	06/14/26 13:44	06/15/26 06:53	1
13C4 PFBA	109		50 - 200	06/14/26 13:44	06/15/26 06:53	1
13C5 PFPeA	100		50 - 200	06/14/26 13:44	06/15/26 06:53	1
13C3 PFBS	117		50 - 200	06/14/26 13:44	06/15/26 06:53	1
13C3 PFHxS	119		50 - 200	06/14/26 13:44	06/15/26 06:53	1

Eurofins Pomona

QC Sample Results

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

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

Lab Sample ID: MBL 380-233714/20-A

Matrix: Water

Analysis Batch: 233869

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 233714

Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C8 PFOS	128		50 - 200	06/14/26 13:44	06/15/26 06:53	1
13C2-4:2-FTS	112		50 - 200	06/14/26 13:44	06/15/26 06:53	1
13C2-6:2-FTS	118		50 - 200	06/14/26 13:44	06/15/26 06:53	1
13C2-8:2-FTS	116		50 - 200	06/14/26 13:44	06/15/26 06:53	1

Lab Sample ID: LCS 380-233714/22-A

Matrix: Water

Analysis Batch: 233869

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 233714

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	121	102		ng/L		85	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	121	103		ng/L		85	70 - 130
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	121	110		ng/L		91	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	121	108		ng/L		89	70 - 130
Perfluorobutanesulfonic acid (PFBS)	121	111		ng/L		92	70 - 130
Perfluorodecanoic acid (PFDA)	121	117		ng/L		97	70 - 130
Perfluorododecanoic acid (PFDoA)	121	108		ng/L		89	70 - 130
Perfluorooheptanoic acid (PFHpA)	121	110		ng/L		91	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	121	112		ng/L		93	70 - 130
Perfluorohexanoic acid (PFHxA)	121	113		ng/L		94	70 - 130
Perfluorononanoic acid (PFNA)	121	106		ng/L		88	70 - 130
Perfluorooctanesulfonic acid (PFOS)	121	106		ng/L		88	70 - 130
Perfluorooctanoic acid (PFOA)	121	110		ng/L		91	70 - 130
Perfluoroundecanoic acid (PFUnA)	121	112		ng/L		93	70 - 130
Perfluorobutanoic acid (PFBA)	121	111		ng/L		92	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	121	116		ng/L		96	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	121	108		ng/L		89	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	121	112		ng/L		93	70 - 130
Nonafluoro-3,6-dioxahexanoic acid (NFDHA)	121	113		ng/L		93	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	121	113		ng/L		94	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	121	118		ng/L		98	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	121	117		ng/L		97	70 - 130
Perfluoropentanoic acid (PFPeA)	121	116		ng/L		96	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	121	108		ng/L		89	70 - 130

Eurofins Pomona

QC Sample Results

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

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

Lab Sample ID: LCS 380-233714/22-A

Matrix: Water

Analysis Batch: 233869

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 233714

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	121	109		ng/L		90	70 - 130
	LCS	LCS					
Isotope Dilution	%Recovery	Qualifier	Limits				
13C3 HFPO-DA	101		50 - 200				
13C6 PFDA	109		50 - 200				
13C5 PFHxA	102		50 - 200				
13C4 PFHpA	102		50 - 200				
13C8 PFOA	102		50 - 200				
13C9 PFNA	115		50 - 200				
13C7 PFUnA	112		50 - 200				
13C2 PFDoA	122		50 - 200				
13C4 PFBA	101		50 - 200				
13C5 PFPeA	92		50 - 200				
13C3 PFBS	112		50 - 200				
13C3 PFHxS	113		50 - 200				
13C8 PFOS	119		50 - 200				
13C2-4:2-FTS	102		50 - 200				
13C2-6:2-FTS	104		50 - 200				
13C2-8:2-FTS	109		50 - 200				

Lab Sample ID: MRL 380-233714/21-A

Matrix: Water

Analysis Batch: 233869

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 233714

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.68	J	ng/L		84	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	1.75	J	ng/L		87	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	1.96	J	ng/L		98	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	1.88	J	ng/L		94	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	1.86	J	ng/L		93	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.08	J	ng/L		103	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	1.98	J	ng/L		99	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	1.96	J	ng/L		98	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	1.97	J	ng/L		98	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.01	J	ng/L		100	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.00	J	ng/L		100	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	1.90	J	ng/L		95	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.18	J	ng/L		109	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	1.88	J	ng/L		94	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	2.17	J	ng/L		108	50 - 150

Eurofins Pomona

QC Sample Results

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

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

Lab Sample ID: MRL 380-233714/21-A

Matrix: Water

Analysis Batch: 233869

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 233714

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	1.85	J	ng/L		92	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	2.05	J	ng/L		102	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	2.03	J	ng/L		101	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	2.07	J	ng/L		103	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	2.01	1.92	J	ng/L		96	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	1.98	J	ng/L		99	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	1.90	J	ng/L		95	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	1.99	J	ng/L		99	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.01	1.82	J	ng/L		91	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	1.95	J	ng/L		97	50 - 150

Isotope Dilution	%Recovery	MRL Qualifier	MRL Limits
13C3 HFPO-DA	91		50 - 200
13C6 PFDA	97		50 - 200
13C5 PFHxA	93		50 - 200
13C4 PFHpA	96		50 - 200
13C8 PFOA	97		50 - 200
13C9 PFNA	108		50 - 200
13C7 PFUnA	107		50 - 200
13C2 PFDoA	108		50 - 200
13C4 PFBA	101		50 - 200
13C5 PFPeA	95		50 - 200
13C3 PFBS	113		50 - 200
13C3 PFHxS	107		50 - 200
13C8 PFOS	122		50 - 200
13C2-4:2-FTS	109		50 - 200
13C2-6:2-FTS	107		50 - 200
13C2-8:2-FTS	108		50 - 200

Lab Sample ID: 380-218705-B-1-A MS

Matrix: Water

Analysis Batch: 233869

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 233714

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	50.1		ng/L		83	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<2.0		60.4	51.3		ng/L		85	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.4	54.0		ng/L		89	70 - 130

Eurofins Pomona

QC Sample Results

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

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

Lab Sample ID: 380-218705-B-1-A MS

Matrix: Water

Analysis Batch: 233869

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 233714

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide	<2.0		60.4	56.3		ng/L		93	70 - 130
Dimer Acid (HFPO-DA/GenX)									
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.4	57.7		ng/L		96	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.4	60.7		ng/L		101	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.4	59.8		ng/L		99	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.4	57.0		ng/L		94	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.4	56.8		ng/L		94	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		60.4	59.9		ng/L		99	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.4	55.4		ng/L		92	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.4	53.7		ng/L		89	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.4	56.9		ng/L		94	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.4	55.9		ng/L		93	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.4	57.0		ng/L		94	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.4	58.3		ng/L		97	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.4	54.9		ng/L		91	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.4	59.6		ng/L		99	70 - 130
Nonafluoro-3,6-dioxahexanoic acid (NFDHA)	<2.0		60.4	58.1		ng/L		96	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<2.0		60.4	60.1		ng/L		99	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.4	59.2		ng/L		98	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.4	59.1		ng/L		98	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		60.4	56.4		ng/L		93	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.4	55.8		ng/L		92	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.4	57.2		ng/L		95	70 - 130

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C3 HFPO-DA	85		50 - 200
13C6 PFDA	92		50 - 200
13C5 PFHxA	91		50 - 200
13C4 PFHpA	91		50 - 200
13C8 PFOA	95		50 - 200
13C9 PFNA	102		50 - 200
13C7 PFUnA	100		50 - 200
13C2 PFDoA	103		50 - 200
13C4 PFBA	97		50 - 200
13C5 PFPeA	91		50 - 200
13C3 PFBS	104		50 - 200
13C3 PFHxS	105		50 - 200
13C8 PFOS	114		50 - 200

Eurofins Pomona

QC Sample Results

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

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

Lab Sample ID: 380-218705-B-1-A MS

Matrix: Water

Analysis Batch: 233869

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 233714

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C2-4:2-FTS	102		50 - 200
13C2-6:2-FTS	101		50 - 200
13C2-8:2-FTS	103		50 - 200

Lab Sample ID: 380-218705-C-1-A MSD

Matrix: Water

Analysis Batch: 233869

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 233714

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.2	50.4		ng/L		84	70 - 130	1	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.2	50.9		ng/L		84	70 - 130	1	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.2	51.1		ng/L		85	70 - 130	5	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.2	55.9		ng/L		93	70 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.2	58.2		ng/L		97	70 - 130	1	30
Perfluorodecanoic acid (PFDA)	<2.0		60.2	61.6		ng/L		102	70 - 130	2	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.2	59.8		ng/L		99	70 - 130	0	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.2	55.0		ng/L		91	70 - 130	4	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.2	55.7		ng/L		92	70 - 130	2	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.2	58.5		ng/L		97	70 - 130	2	30
Perfluorononanoic acid (PFNA)	<2.0		60.2	53.7		ng/L		89	70 - 130	3	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.2	55.3		ng/L		92	70 - 130	3	30
Perfluorooctanoic acid (PFOA)	<2.0		60.2	54.4		ng/L		90	70 - 130	5	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.2	56.3		ng/L		93	70 - 130	1	30
Perfluorobutanoic acid (PFBA)	<2.0		60.2	55.7		ng/L		92	70 - 130	2	30
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.2	56.7		ng/L		94	70 - 130	3	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.2	56.7		ng/L		94	70 - 130	3	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.2	55.0		ng/L		91	70 - 130	8	30
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.2	55.8		ng/L		93	70 - 130	4	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.2	54.0		ng/L		90	70 - 130	11	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.2	60.2		ng/L		100	70 - 130	2	30
Perfluoro-4-methoxybutanoic acid (PFMPA)	<2.0		60.2	55.3		ng/L		92	70 - 130	7	30
Perfluoropentanoic acid (PFPeA)	<2.0		60.2	55.1		ng/L		91	70 - 130	2	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.2	55.7		ng/L		92	70 - 130	0	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.2	53.8		ng/L		89	70 - 130	6	30

Eurofins Pomona

QC Sample Results

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

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

Isotope Dilution	MSD MSD		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	70		50 - 200
13C6 PFDA	63		50 - 200
13C5 PFHxA	73		50 - 200
13C4 PFHpA	75		50 - 200
13C8 PFOA	71		50 - 200
13C9 PFNA	69		50 - 200
13C7 PFUnA	71		50 - 200
13C2 PFDoA	75		50 - 200
13C4 PFBA	86		50 - 200
13C5 PFPeA	77		50 - 200
13C3 PFBS	98		50 - 200
13C3 PFHxS	103		50 - 200
13C8 PFOS	106		50 - 200
13C2-4:2-FTS	95		50 - 200
13C2-6:2-FTS	99		50 - 200
13C2-8:2-FTS	100		50 - 200

Lab Sample ID: MBL 380-234517/20-A

Matrix: Water

Analysis Batch: 234730

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 234517

Analyte	MBL MBL		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
11-Chloroeicosafluoro-3-oxaundecan	<0.30		2.0	ng/L		06/17/26 16:35	06/18/26 14:31	1
e-1-sulfonic acid (11CI-PF3OUdS)								
9-Chlorohexadecafluoro-3-oxanonan	<0.30		2.0	ng/L		06/17/26 16:35	06/18/26 14:31	1
e-1-sulfonic acid(9CI-PF3ONS)								
4,8-Dioxa-3H-perfluorononanoic acid	<0.60		2.0	ng/L		06/17/26 16:35	06/18/26 14:31	1
(ADONA)								
Hexafluoropropylene Oxide Dimer	<1.0		2.0	ng/L		06/17/26 16:35	06/18/26 14:31	1
Acid (HFPO-DA/GenX)								
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		06/17/26 16:35	06/18/26 14:31	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		06/17/26 16:35	06/18/26 14:31	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		06/17/26 16:35	06/18/26 14:31	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		06/17/26 16:35	06/18/26 14:31	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		06/17/26 16:35	06/18/26 14:31	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		06/17/26 16:35	06/18/26 14:31	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		06/17/26 16:35	06/18/26 14:31	1
Perfluorooctanesulfonic acid (PFOS)	0.488 J		2.0	ng/L		06/17/26 16:35	06/18/26 14:31	1
Perfluorooctanoic acid (PFOA)	0.458 J		2.0	ng/L		06/17/26 16:35	06/18/26 14:31	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		06/17/26 16:35	06/18/26 14:31	1
Perfluorobutanoic acid (PFBA)	<0.69		2.0	ng/L		06/17/26 16:35	06/18/26 14:31	1
1H,1H,2H,2H-Perfluorodecane	<0.38		2.0	ng/L		06/17/26 16:35	06/18/26 14:31	1
sulfonic acid (8:2 FTS)								
1H,1H,2H,2H-Perfluorohexane	<0.37		2.0	ng/L		06/17/26 16:35	06/18/26 14:31	1
sulfonic acid (4:2 FTS)								
1H,1H,2H,2H-Perfluorooctane sulfonic	<0.48		2.0	ng/L		06/17/26 16:35	06/18/26 14:31	1
acid (6:2 FTS)								
Nonafluoro-3,6-dioxaheptanoic acid	<0.47		2.0	ng/L		06/17/26 16:35	06/18/26 14:31	1
(NFDHA)								
Perfluoro (2-ethoxyethane) sulfonic	<0.25		2.0	ng/L		06/17/26 16:35	06/18/26 14:31	1
acid (PFEESA)								
Perfluoro-3-methoxypropanoic acid	<0.46		2.0	ng/L		06/17/26 16:35	06/18/26 14:31	1
(PFMPA)								
Perfluoro-4-methoxybutanoic acid	<0.15		2.0	ng/L		06/17/26 16:35	06/18/26 14:31	1
(PFMBA)								

Eurofins Pomona

QC Sample Results

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

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

Lab Sample ID: MBL 380-234517/20-A

Matrix: Water

Analysis Batch: 234730

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 234517

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoropentanoic acid (PFPeA)	<0.38		2.0	ng/L		06/17/26 16:35	06/18/26 14:31	1
Perfluoroheptanesulfonic acid (PFHpS)	<0.36		2.0	ng/L		06/17/26 16:35	06/18/26 14:31	1
Perfluoropentanesulfonic acid (PFPeS)	<0.39		2.0	ng/L		06/17/26 16:35	06/18/26 14:31	1
Isotope Dilution	MBL %Recovery	MBL Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C3 HFPO-DA	106		50 - 200			06/17/26 16:35	06/18/26 14:31	1
13C6 PFDA	100		50 - 200			06/17/26 16:35	06/18/26 14:31	1
13C5 PFHxA	111		50 - 200			06/17/26 16:35	06/18/26 14:31	1
13C4 PFHpA	111		50 - 200			06/17/26 16:35	06/18/26 14:31	1
13C8 PFOA	111		50 - 200			06/17/26 16:35	06/18/26 14:31	1
13C9 PFNA	111		50 - 200			06/17/26 16:35	06/18/26 14:31	1
13C7 PFUnA	106		50 - 200			06/17/26 16:35	06/18/26 14:31	1
13C2 PFDoA	106		50 - 200			06/17/26 16:35	06/18/26 14:31	1
13C4 PFBA	110		50 - 200			06/17/26 16:35	06/18/26 14:31	1
13C5 PFPeA	108		50 - 200			06/17/26 16:35	06/18/26 14:31	1
13C3 PFBS	110		50 - 200			06/17/26 16:35	06/18/26 14:31	1
13C3 PFHxS	112		50 - 200			06/17/26 16:35	06/18/26 14:31	1
13C8 PFOS	110		50 - 200			06/17/26 16:35	06/18/26 14:31	1
13C2-4:2-FTS	119		50 - 200			06/17/26 16:35	06/18/26 14:31	1
13C2-6:2-FTS	115		50 - 200			06/17/26 16:35	06/18/26 14:31	1
13C2-8:2-FTS	111		50 - 200			06/17/26 16:35	06/18/26 14:31	1

Lab Sample ID: LCS 380-234517/22-A

Matrix: Water

Analysis Batch: 234730

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 234517

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	60.2	54.6		ng/L		91	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	60.2	54.1		ng/L		90	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	60.2	59.9		ng/L		99	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	60.2	58.4		ng/L		97	70 - 130
Perfluorobutanesulfonic acid (PFBS)	60.2	54.0		ng/L		90	70 - 130
Perfluorodecanoic acid (PFDA)	60.2	59.8		ng/L		99	70 - 130
Perfluorododecanoic acid (PFDoA)	60.2	55.1		ng/L		92	70 - 130
Perfluoroheptanoic acid (PFHpA)	60.2	56.9		ng/L		94	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	60.2	57.4		ng/L		95	70 - 130
Perfluorohexanoic acid (PFHxA)	60.2	55.4		ng/L		92	70 - 130
Perfluorononanoic acid (PFNA)	60.2	54.3		ng/L		90	70 - 130
Perfluorooctanesulfonic acid (PFOS)	60.2	54.4		ng/L		90	70 - 130
Perfluorooctanoic acid (PFOA)	60.2	55.8		ng/L		93	70 - 130

Eurofins Pomona

QC Sample Results

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

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

Lab Sample ID: LCS 380-234517/22-A

Matrix: Water

Analysis Batch: 234730

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 234517

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoroundecanoic acid (PFUnA)	60.2	56.9		ng/L		94	70 - 130
Perfluorobutanoic acid (PFBA)	60.2	56.6		ng/L		94	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	60.2	56.1		ng/L		93	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	60.2	54.7		ng/L		91	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	60.2	60.5		ng/L		100	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	60.2	51.1		ng/L		85	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	60.2	56.4		ng/L		94	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	60.2	55.4		ng/L		92	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	60.2	57.1		ng/L		95	70 - 130
Perfluoropentanoic acid (PFPeA)	60.2	57.1		ng/L		95	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	60.2	55.5		ng/L		92	70 - 130
Perfluoropentanesulfonic acid (PFPeS)	60.2	56.3		ng/L		93	70 - 130

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
13C3 HFPO-DA	102		50 - 200
13C6 PFDA	106		50 - 200
13C5 PFHxA	112		50 - 200
13C4 PFHpA	108		50 - 200
13C8 PFOA	109		50 - 200
13C9 PFNA	113		50 - 200
13C7 PFUnA	107		50 - 200
13C2 PFDoA	112		50 - 200
13C4 PFBA	109		50 - 200
13C5 PFPeA	106		50 - 200
13C3 PFBS	110		50 - 200
13C3 PFHxS	110		50 - 200
13C8 PFOS	114		50 - 200
13C2-4:2-FTS	115		50 - 200
13C2-6:2-FTS	105		50 - 200
13C2-8:2-FTS	110		50 - 200

Lab Sample ID: MRL 380-234517/21-A

Matrix: Water

Analysis Batch: 234730

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 234517

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.85	J	ng/L		92	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	2.01	1.85	J	ng/L		92	50 - 150

Eurofins Pomona

QC Sample Results

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

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

Lab Sample ID: MRL 380-234517/21-A

Matrix: Water

Analysis Batch: 234730

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 234517

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	2.06	J	ng/L		103	50 - 150
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	2.14	J	ng/L		106	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	1.95	J	ng/L		97	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.09	J	ng/L		104	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.11	J	ng/L		105	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	1.97	J	ng/L		98	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.00	J	ng/L		100	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	1.96	J	ng/L		98	50 - 150
Perfluorononanoic acid (PFNA)	2.01	1.93	J	ng/L		96	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	1.83	J	ng/L		91	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.00	J	ng/L		100	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.07	J	ng/L		103	50 - 150
Perfluorobutanoic acid (PFBA)	2.01	2.20	J	ng/L		110	50 - 150
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	2.01	2.23	J	ng/L		111	50 - 150
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	2.01	2.24	J	ng/L		111	50 - 150
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	2.01	2.19	J	ng/L		109	50 - 150
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	2.01	2.03	J	ng/L		101	50 - 150
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	2.01	1.81	J	ng/L		90	50 - 150
Perfluoro-3-methoxypropanoic acid (PFMPA)	2.01	1.95	J	ng/L		97	50 - 150
Perfluoro-4-methoxybutanoic acid (PFMBA)	2.01	2.00	J	ng/L		100	50 - 150
Perfluoropentanoic acid (PFPeA)	2.01	2.21	J	ng/L		110	50 - 150
Perfluoroheptanesulfonic acid (PFHpS)	2.01	1.94	J	ng/L		97	50 - 150
Perfluoropentanesulfonic acid (PFPeS)	2.01	2.01	J	ng/L		100	50 - 150

Isotope Dilution	MRL %Recovery	MRL Qualifier	Limits
13C3 HFPO-DA	100		50 - 200
13C6 PFDA	104		50 - 200
13C5 PFHxA	111		50 - 200
13C4 PFHpA	108		50 - 200
13C8 PFOA	111		50 - 200
13C9 PFNA	113		50 - 200
13C7 PFUnA	109		50 - 200
13C2 PFDoA	105		50 - 200
13C4 PFBA	110		50 - 200
13C5 PFPeA	105		50 - 200
13C3 PFBS	105		50 - 200
13C3 PFHxS	106		50 - 200

Eurofins Pomona

QC Sample Results

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

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

Lab Sample ID: MRL 380-234517/21-A

Matrix: Water

Analysis Batch: 234730

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 234517

Isotope Dilution	MRL %Recovery	MRL Qualifier	Limits
13C8 PFOS	113		50 - 200
13C2-4:2-FTS	111		50 - 200
13C2-6:2-FTS	109		50 - 200
13C2-8:2-FTS	105		50 - 200

Lab Sample ID: 175-3955-B-1-A MS

Matrix: Water

Analysis Batch: 234730

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 234517

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		60.2	53.1		ng/L		88	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.2	54.2		ng/L		90	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.2	59.4		ng/L		99	70 - 130
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.2	55.1		ng/L		91	70 - 130
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.2	55.5		ng/L		92	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		60.2	59.5		ng/L		99	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		60.2	56.5		ng/L		94	70 - 130
Perfluoroheptanoic acid (PFHpA)	<2.0		60.2	56.7		ng/L		94	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.2	58.3		ng/L		97	70 - 130
Perfluorohexanoic acid (PFHxA)	<2.0		60.2	58.1		ng/L		97	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		60.2	54.3		ng/L		90	70 - 130
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.2	53.0		ng/L		88	70 - 130
Perfluorooctanoic acid (PFOA)	<2.0		60.2	56.5		ng/L		94	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		60.2	56.4		ng/L		94	70 - 130
Perfluorobutanoic acid (PFBA)	<2.0		60.2	56.0		ng/L		93	70 - 130
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.2	56.7		ng/L		94	70 - 130
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.2	64.4		ng/L		107	70 - 130
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.2	58.4		ng/L		97	70 - 130
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	<2.0		60.2	60.3		ng/L		100	70 - 130
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<2.0		60.2	56.6		ng/L		94	70 - 130
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.2	55.8		ng/L		93	70 - 130
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.2	55.3		ng/L		92	70 - 130
Perfluoropentanoic acid (PFPeA)	<2.0		60.2	58.2		ng/L		97	70 - 130
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.2	54.0		ng/L		90	70 - 130

Eurofins Pomona

QC Sample Results

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

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

Lab Sample ID: 175-3955-B-1-A MS

Matrix: Water

Analysis Batch: 234730

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 234517

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.2	59.2		ng/L		98	70 - 130
Isotope Dilution									
	%Recovery	MS Qualifier	Limits						
13C3 HFPO-DA	107		50 - 200						
13C6 PFDA	102		50 - 200						
13C5 PFHxA	110		50 - 200						
13C4 PFHpA	106		50 - 200						
13C8 PFOA	108		50 - 200						
13C9 PFNA	110		50 - 200						
13C7 PFUnA	106		50 - 200						
13C2 PFDoA	106		50 - 200						
13C4 PFBA	111		50 - 200						
13C5 PFPeA	108		50 - 200						
13C3 PFBS	109		50 - 200						
13C3 PFHxS	106		50 - 200						
13C8 PFOS	114		50 - 200						
13C2-4:2-FTS	110		50 - 200						
13C2-6:2-FTS	103		50 - 200						
13C2-8:2-FTS	108		50 - 200						

Lab Sample ID: 175-3955-D-1-A MSD

Matrix: Water

Analysis Batch: 234730

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 234517

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		60.4	53.5		ng/L		89	70 - 130	1	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		60.4	52.9		ng/L		88	70 - 130	3	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		60.4	57.0		ng/L		94	70 - 130	4	30
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		60.4	55.3		ng/L		92	70 - 130	0	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		60.4	55.2		ng/L		91	70 - 130	1	30
Perfluorodecanoic acid (PFDA)	<2.0		60.4	58.6		ng/L		97	70 - 130	2	30
Perfluorododecanoic acid (PFDoA)	<2.0		60.4	58.4		ng/L		97	70 - 130	3	30
Perfluoroheptanoic acid (PFHpA)	<2.0		60.4	57.1		ng/L		95	70 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	<2.0		60.4	55.1		ng/L		91	70 - 130	6	30
Perfluorohexanoic acid (PFHxA)	<2.0		60.4	55.9		ng/L		93	70 - 130	4	30
Perfluorononanoic acid (PFNA)	<2.0		60.4	55.2		ng/L		91	70 - 130	2	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		60.4	53.3		ng/L		88	70 - 130	1	30
Perfluorooctanoic acid (PFOA)	<2.0		60.4	55.4		ng/L		92	70 - 130	2	30
Perfluoroundecanoic acid (PFUnA)	<2.0		60.4	56.2		ng/L		93	70 - 130	0	30
Perfluorobutanoic acid (PFBA)	<2.0		60.4	55.9		ng/L		93	70 - 130	0	30

Eurofins Pomona

QC Sample Results

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

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

Lab Sample ID: 175-3955-D-1-A MSD

Matrix: Water

Analysis Batch: 234730

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 234517

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<2.0		60.4	59.3		ng/L		98	70 - 130	5	30
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<2.0		60.4	52.4		ng/L		87	70 - 130	21	30
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<2.0		60.4	58.2		ng/L		96	70 - 130	0	30
Nonafluoro-3,6-dioxahexanoic acid (NFDHA)	<2.0		60.4	59.3		ng/L		98	70 - 130	2	30
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEA)	<2.0		60.4	56.4		ng/L		94	70 - 130	0	30
Perfluoro-3-methoxypropanoic acid (PFMPA)	<2.0		60.4	55.1		ng/L		91	70 - 130	1	30
Perfluoro-4-methoxybutanoic acid (PFMBA)	<2.0		60.4	55.7		ng/L		92	70 - 130	1	30
Perfluoropentanoic acid (PFPeA)	<2.0		60.4	56.9		ng/L		94	70 - 130	2	30
Perfluoroheptanesulfonic acid (PFHpS)	<2.0		60.4	55.3		ng/L		92	70 - 130	2	30
Perfluoropentanesulfonic acid (PFPeS)	<2.0		60.4	56.0		ng/L		93	70 - 130	6	30

Isotope Dilution	MSD %Recovery	MSD Qualifier	Limits
13C3 HFPO-DA	103		50 - 200
13C6 PFDA	102		50 - 200
13C5 PFHxA	108		50 - 200
13C4 PFHpA	104		50 - 200
13C8 PFOA	105		50 - 200
13C9 PFNA	109		50 - 200
13C7 PFUnA	106		50 - 200
13C2 PFDoA	104		50 - 200
13C4 PFBA	108		50 - 200
13C5 PFPeA	105		50 - 200
13C3 PFBS	111		50 - 200
13C3 PFHxS	111		50 - 200
13C8 PFOS	114		50 - 200
13C2-4:2-FTS	124		50 - 200
13C2-6:2-FTS	109		50 - 200
13C2-8:2-FTS	107		50 - 200

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

Lab Sample ID: MBL 380-233887/20-A

Matrix: Water

Analysis Batch: 233966

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 233887

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<1.0		2.0	ng/L		06/15/26 10:00	06/15/26 22:13	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0	ng/L		06/15/26 10:00	06/15/26 22:13	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0	ng/L		06/15/26 10:00	06/15/26 22:13	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0	ng/L		06/15/26 10:00	06/15/26 22:13	1

Eurofins Pomona

QC Sample Results

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

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

Lab Sample ID: MBL 380-233887/20-A

Matrix: Water

Analysis Batch: 233966

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 233887

Analyte	MBL Result	MBL Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0	ng/L		06/15/26 10:00	06/15/26 22:13	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0	ng/L		06/15/26 10:00	06/15/26 22:13	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0	ng/L		06/15/26 10:00	06/15/26 22:13	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0	ng/L		06/15/26 10:00	06/15/26 22:13	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0	ng/L		06/15/26 10:00	06/15/26 22:13	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0	ng/L		06/15/26 10:00	06/15/26 22:13	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0	ng/L		06/15/26 10:00	06/15/26 22:13	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0	ng/L		06/15/26 10:00	06/15/26 22:13	1
Perfluorononanoic acid (PFNA)	<0.40		2.0	ng/L		06/15/26 10:00	06/15/26 22:13	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0	ng/L		06/15/26 10:00	06/15/26 22:13	1
Perfluorotridecanoic acid (PFTDA)	<0.36		2.0	ng/L		06/15/26 10:00	06/15/26 22:13	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (9Cl-PF3ONS)	<0.30		2.0	ng/L		06/15/26 10:00	06/15/26 22:13	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0	ng/L		06/15/26 10:00	06/15/26 22:13	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0	ng/L		06/15/26 10:00	06/15/26 22:13	1

Surrogate	MBL %Recovery	MBL Qualifier	Limits	Prepared	Analyzed	Dil Fac
d5-NEtFOSAA	94		70 - 130	06/15/26 10:00	06/15/26 22:13	1
13C2 PFHxA	110		70 - 130	06/15/26 10:00	06/15/26 22:13	1
13C2 PFDA	102		70 - 130	06/15/26 10:00	06/15/26 22:13	1
13C3-GenX	102		70 - 130	06/15/26 10:00	06/15/26 22:13	1

Lab Sample ID: LCS 380-233887/22-A

Matrix: Water

Analysis Batch: 233966

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 233887

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	50.3	49.4		ng/L		98	70 - 130
Perfluorooctanesulfonic acid (PFOS)	50.3	54.5		ng/L		108	70 - 130
Perfluoroundecanoic acid (PFUnA)	50.3	52.9		ng/L		105	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	50.3	52.9		ng/L		105	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	50.3	52.3		ng/L		104	70 - 130
Perfluorohexanoic acid (PFHxA)	50.3	57.0		ng/L		113	70 - 130
Perfluorododecanoic acid (PFDoA)	50.3	51.8		ng/L		103	70 - 130
Perfluorooctanoic acid (PFOA)	50.3	48.5		ng/L		96	70 - 130
Perfluorodecanoic acid (PFDA)	50.3	54.4		ng/L		108	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	50.3	54.1		ng/L		108	70 - 130
Perfluorobutanesulfonic acid (PFBS)	50.3	53.7		ng/L		107	70 - 130
Perfluoroheptanoic acid (PFHpA)	50.3	53.1		ng/L		106	70 - 130
Perfluorononanoic acid (PFNA)	50.3	51.1		ng/L		102	70 - 130

Eurofins Pomona

QC Sample Results

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

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

Lab Sample ID: LCS 380-233887/22-A

Matrix: Water

Analysis Batch: 233966

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 233887

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorotetradecanoic acid (PFTA)	50.3	46.2		ng/L		92	70 - 130
Perfluorotridecanoic acid (PFTTrDA)	50.3	52.5		ng/L		104	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	50.3	52.7		ng/L		105	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	50.3	52.6		ng/L		105	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	50.3	51.6		ng/L		103	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
d5-NEtFOSAA	100		70 - 130
13C2 PFHxA	111		70 - 130
13C2 PFDA	108		70 - 130
13C3-GenX	103		70 - 130

Lab Sample ID: MRL 380-233887/21-A

Matrix: Water

Analysis Batch: 233966

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 233887

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	1.75	J	ng/L		87	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	2.10	J	ng/L		104	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.18	J	ng/L		108	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.01	2.08	J	ng/L		103	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.01	2.00	J	ng/L		99	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.11	J	ng/L		105	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	2.02	J	ng/L		101	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.06	J	ng/L		103	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	2.12	J	ng/L		105	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.08	J	ng/L		104	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.00	J	ng/L		99	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.12	J	ng/L		105	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.19	J	ng/L		109	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.01	2.06	J	ng/L		102	50 - 150
Perfluorotridecanoic acid (PFTTrDA)	2.01	2.33	J	ng/L		116	50 - 150
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	2.01	2.07	J	ng/L		103	50 - 150

Eurofins Pomona

QC Sample Results

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

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

Lab Sample ID: MRL 380-233887/21-A

Matrix: Water

Analysis Batch: 233966

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 233887

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	2.01	1.99	J	ng/L		99	50 - 150
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	2.01	1.78	J	ng/L		88	50 - 150
Surrogate	MRL %Recovery	MRL Qualifier	Limits				
d5-NEtFOSAA	95		70 - 130				
13C2 PFHxA	111		70 - 130				
13C2 PFDA	103		70 - 130				
13C3-GenX	96		70 - 130				

Lab Sample ID: 380-219601-1 MS

Matrix: Water

Analysis Batch: 233966

Client Sample ID: KA'AMILO WELLS P1 (331-031-WL008)

Prep Type: Total/NA

Prep Batch: 233887

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	25.4		ng/L		101	70 - 130
Perfluorooctanesulfonic acid (PFOS)	5.4		25.1	35.0		ng/L		118	70 - 130
Perfluoroundecanoic acid (PFUnA)	<2.0		25.1	28.6		ng/L		114	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.1	26.6		ng/L		106	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		25.1	28.0		ng/L		112	70 - 130
Perfluorohexanoic acid (PFHxA)	4.5		25.1	32.4		ng/L		111	70 - 130
Perfluorododecanoic acid (PFDoA)	<2.0		25.1	27.7		ng/L		110	70 - 130
Perfluorooctanoic acid (PFOA)	4.8		25.1	32.4		ng/L		110	70 - 130
Perfluorodecanoic acid (PFDA)	<2.0		25.1	28.0		ng/L		112	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	3.8		25.1	32.3		ng/L		113	70 - 130
Perfluorobutanesulfonic acid (PFBS)	3.5		25.1	33.4		ng/L		119	70 - 130
Perfluoroheptanoic acid (PFHpA)	2.4		25.1	30.5		ng/L		112	70 - 130
Perfluorononanoic acid (PFNA)	<2.0		25.1	28.0		ng/L		112	70 - 130
Perfluorotetradecanoic acid (PFTA)	<2.0		25.1	26.0		ng/L		104	70 - 130
Perfluorotridecanoic acid (PFTTrDA)	<2.0		25.1	28.4		ng/L		113	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		25.1	27.4		ng/L		109	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		25.1	26.6		ng/L		106	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		25.1	27.6		ng/L		110	70 - 130

Eurofins Pomona

QC Sample Results

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

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

Lab Sample ID: 380-219601-1 MS

Matrix: Water

Analysis Batch: 233966

Client Sample ID: KA'AMILO WELLS P1 (331-031-WL008)

Prep Type: Total/NA

Prep Batch: 233887

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
d5-NEtFOSAA	106		70 - 130
13C2 PFHxA	109		70 - 130
13C2 PFDA	111		70 - 130
13C3-GenX	110		70 - 130

Lab Sample ID: 380-219601-1 MSD

Matrix: Water

Analysis Batch: 233966

Client Sample ID: KA'AMILO WELLS P1 (331-031-WL008)

Prep Type: Total/NA

Prep Batch: 233887

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Hexafluoropropylene Oxide	<2.0		25.2	24.0		ng/L		95	70 - 130	6	30
Dimer Acid (HFPO-DA/GenX)											
Perfluorooctanesulfonic acid (PFOS)	5.4		25.2	32.8		ng/L		109	70 - 130	7	30
Perfluoroundecanoic acid (PFUnA)	<2.0		25.2	26.7		ng/L		106	70 - 130	7	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.2	25.0		ng/L		100	70 - 130	6	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		25.2	27.4		ng/L		109	70 - 130	2	30
Perfluorohexanoic acid (PFHxA)	4.5		25.2	30.4		ng/L		103	70 - 130	6	30
Perfluorododecanoic acid (PFDoA)	<2.0		25.2	27.0		ng/L		107	70 - 130	3	30
Perfluorooctanoic acid (PFOA)	4.8		25.2	30.0		ng/L		100	70 - 130	8	30
Perfluorodecanoic acid (PFDA)	<2.0		25.2	27.7		ng/L		110	70 - 130	1	30
Perfluorohexanesulfonic acid (PFHxS)	3.8		25.2	30.5		ng/L		106	70 - 130	6	30
Perfluorobutanesulfonic acid (PFBS)	3.5		25.2	32.7		ng/L		116	70 - 130	2	30
Perfluoroheptanoic acid (PFHpA)	2.4		25.2	28.9		ng/L		105	70 - 130	5	30
Perfluorononanoic acid (PFNA)	<2.0		25.2	26.1		ng/L		104	70 - 130	7	30
Perfluorotetradecanoic acid (PFTA)	<2.0		25.2	24.7		ng/L		98	70 - 130	5	30
Perfluorotridecanoic acid (PFTrDA)	<2.0		25.2	27.5		ng/L		109	70 - 130	3	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		25.2	26.9		ng/L		107	70 - 130	2	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		25.2	26.1		ng/L		104	70 - 130	2	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		25.2	26.5		ng/L		105	70 - 130	4	30

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
d5-NEtFOSAA	99		70 - 130
13C2 PFHxA	98		70 - 130
13C2 PFDA	105		70 - 130
13C3-GenX	102		70 - 130

QC Association Summary

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

LCMS

Prep Batch: 233714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-219601-2	FB KA'AMILO WELLS P1 (331-031-WL008)	Total/NA	Water	533	
MBL 380-233714/20-A	Method Blank	Total/NA	Water	533	
LCS 380-233714/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-233714/21-A	Lab Control Sample	Total/NA	Water	533	
380-218705-B-1-A MS	Matrix Spike	Total/NA	Water	533	
380-218705-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 233869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-219601-2	FB KA'AMILO WELLS P1 (331-031-WL008)	Total/NA	Water	533	233714
MBL 380-233714/20-A	Method Blank	Total/NA	Water	533	233714
LCS 380-233714/22-A	Lab Control Sample	Total/NA	Water	533	233714
MRL 380-233714/21-A	Lab Control Sample	Total/NA	Water	533	233714
380-218705-B-1-A MS	Matrix Spike	Total/NA	Water	533	233714
380-218705-C-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	233714

Prep Batch: 233887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-219601-1	KA'AMILO WELLS P1 (331-031-WL008)	Total/NA	Water	537.1 DW	
380-219601-2	FB KA'AMILO WELLS P1 (331-031-WL008)	Total/NA	Water	537.1 DW	
MBL 380-233887/20-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-233887/22-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-233887/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-219601-1 MS	KA'AMILO WELLS P1 (331-031-WL008)	Total/NA	Water	537.1 DW	
380-219601-1 MSD	KA'AMILO WELLS P1 (331-031-WL008)	Total/NA	Water	537.1 DW	

Analysis Batch: 233966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-219601-1	KA'AMILO WELLS P1 (331-031-WL008)	Total/NA	Water	EPA 537.1 V2	233887
380-219601-2	FB KA'AMILO WELLS P1 (331-031-WL008)	Total/NA	Water	EPA 537.1 V2	233887
MBL 380-233887/20-A	Method Blank	Total/NA	Water	EPA 537.1 V2	233887
LCS 380-233887/22-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	233887
MRL 380-233887/21-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	233887
380-219601-1 MS	KA'AMILO WELLS P1 (331-031-WL008)	Total/NA	Water	EPA 537.1 V2	233887
380-219601-1 MSD	KA'AMILO WELLS P1 (331-031-WL008)	Total/NA	Water	EPA 537.1 V2	233887

Prep Batch: 234517

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-219601-1	KA'AMILO WELLS P1 (331-031-WL008)	Total/NA	Water	533	
MBL 380-234517/20-A	Method Blank	Total/NA	Water	533	
LCS 380-234517/22-A	Lab Control Sample	Total/NA	Water	533	
MRL 380-234517/21-A	Lab Control Sample	Total/NA	Water	533	
175-3955-B-1-A MS	Matrix Spike	Total/NA	Water	533	
175-3955-D-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	

Analysis Batch: 234730

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-219601-1	KA'AMILO WELLS P1 (331-031-WL008)	Total/NA	Water	533	234517
MBL 380-234517/20-A	Method Blank	Total/NA	Water	533	234517
LCS 380-234517/22-A	Lab Control Sample	Total/NA	Water	533	234517
MRL 380-234517/21-A	Lab Control Sample	Total/NA	Water	533	234517

Eurofins Pomona

QC Association Summary

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

LCMS (Continued)

Analysis Batch: 234730 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
175-3955-B-1-A MS	Matrix Spike	Total/NA	Water	533	234517
175-3955-D-1-A MSD	Matrix Spike Duplicate	Total/NA	Water	533	234517

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

Lab Chronicle

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

Job ID: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

Client Sample ID: KA'AMILO WELLS P1 (331-031-WL008)

Lab Sample ID: 380-219601-1

Date Collected: 06/09/26 10:15

Matrix: Water

Date Received: 06/12/26 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			234517	E2HD	EA POM	06/17/26 16:35
Total/NA	Analysis	533		1	234730	SZ9R	EA POM	06/18/26 16:16
Total/NA	Prep	537.1 DW			233887	LM3A	EA POM	06/15/26 10:00
Total/NA	Analysis	EPA 537.1 V2		1	233966	M7ML	EA POM	06/15/26 22:42

Client Sample ID: FB KA'AMILO WELLS P1 (331-031-WL008)

Lab Sample ID: 380-219601-2

Date Collected: 06/09/26 10:15

Matrix: Water

Date Received: 06/12/26 09:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	533			233714	N8NE	EA POM	06/14/26 13:44
Total/NA	Analysis	533		1	233869	SZ9R	EA POM	06/15/26 10:50
Total/NA	Prep	537.1 DW			233887	LM3A	EA POM	06/15/26 10:00
Total/NA	Analysis	EPA 537.1 V2		1	233966	M7ML	EA POM	06/16/26 00:07

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: 380-219601-1
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 *

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

Method Summary

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

Job ID: 380-219601-1
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: 380-219601-1
SDG: PFAS: Ka'amilo Wells P1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	PWSID Number
380-219601-1	KA'AMILO WELLS P1 (331-031-WL008)	Water	06/09/26 10:15	06/12/26 09:47	HI0000331
380-219601-2	FB KA'AMILO WELLS P1 (331-031-WL008)	Water	06/09/26 10:15	06/12/26 09:47	HI0000331

Phone (626) 386-1100

Environment Testing
America

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-219601-1
SDG Number: PFAS: Ka'amilo Wells P1

Login Number: 219601

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	