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ANALYTICAL REPORT

PREPARED FOR

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City & County of Honolulu
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Honolulu, Hawaii 96843

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JOB DESCRIPTION

RED-HILL
PFAS: Ka'amilo Wells P2
RUSH Weekly Red Hill

JOB NUMBER

380-217762-1

Eurofins Pomona
941 Corporate Center Drive
Pomona CA 91768-2642

See page two for job notes and contact information.

Job Notes

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

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

Definitions/Glossary

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

Job ID: 380-217762-1
SDG: PFAS: Ka'amilo Wells P2

Qualifiers

LCMS

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
380-217762-1

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 6/3/2026 10:05 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.3°C.

PFAS
Method 533: The following QC issues in preparation batch 380-232107 and analytical batch 380-232132 were observed: IDA 13C6 PFDA, 13C7 PFUnA and 13C2 PFDoA recovery for the following field blank sample: FB KA'AMILO WELLS P2 (331-600-WL085) (380-217762-2) was below method limits (low bias). Field blank sample was re-analyzed for confirmation. No volume available for re-extraction. Affected target analytes flagged due to IDA failures. PFAS results by 533 for KA'AMILO WELLS P2 (331-600-WL085) (380-217762-1) collected on 06/01/26 are not acceptable for compliance reporting due to QC failures of Isotope Dilution Analytes (IDA) not meeting the method limits for the FB KA'AMILO WELLS P2 (331-600-WL085) (380-217762-2) . The sample is collected weekly thus follow up sample was collected on 06/09/26 under job # 380-219298-1. Analysis by EPA 533 is currently in progress. (XWB4)

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

Detection Summary

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

Job ID: 380-217762-1
SDG: PFAS: Ka'amilo Wells P2

Client Sample ID: KA'AMILO WELLS P2 (331-600-WL085) — Lab Sample ID: 380-217762-1

Analyte	Result	Qualifier	RL		Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	4.8		2.0		ng/L	1		EPA 537.1 V2	Total/NA
Perfluorohexanoic acid (PFHxA)	4.4		2.0		ng/L	1		EPA 537.1 V2	Total/NA
Perfluorooctanoic acid (PFOA)	4.0		2.0		ng/L	1		EPA 537.1 V2	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	4.0		2.0		ng/L	1		EPA 537.1 V2	Total/NA
Perfluorobutanesulfonic acid (PFBS)	3.4		2.0		ng/L	1		EPA 537.1 V2	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.2		2.0		ng/L	1		EPA 537.1 V2	Total/NA

Client Sample ID: FB KA'AMILO WELLS P2 (331-600-WL085) — Lab Sample ID: 380-217762-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: KA'AMILO WELLS P2 (331-600-WL085)

Lab Sample ID: 380-217762-1
Date Collected: 06/01/26 13:00
Matrix: Water
Date Received: 06/03/26 10:05

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		06/04/26 02:25	06/05/26 04:25	1
Perfluorooctanesulfonic acid (PFOS)	**4.8**		2.0		ng/L		06/04/26 02:25	06/05/26 04:25	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:25	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:25	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:25	1
Perfluorohexanoic acid (PFHxA)	**4.4**		2.0		ng/L		06/04/26 02:25	06/05/26 04:25	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:25	1
Perfluorooctanoic acid (PFOA)	**4.0**		2.0		ng/L		06/04/26 02:25	06/05/26 04:25	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:25	1
Perfluorohexanesulfonic acid (PFHxS)	**4.0**		2.0		ng/L		06/04/26 02:25	06/05/26 04:25	1
Perfluorobutanesulfonic acid (PFBS)	**3.4**		2.0		ng/L		06/04/26 02:25	06/05/26 04:25	1
Perfluoroheptanoic acid (PFHpA)	**2.2**		2.0		ng/L		06/04/26 02:25	06/05/26 04:25	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:25	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:25	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:25	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:25	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:25	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d5-NEtFOSAA	*103*		*70 - 130*	*06/04/26 02:25*	*06/05/26 04:25*	*1*
13C2 PFHxA	*111*		*70 - 130*	*06/04/26 02:25*	*06/05/26 04:25*	*1*
13C2 PFDA	*109*		*70 - 130*	*06/04/26 02:25*	*06/05/26 04:25*	*1*
13C3-GenX	*109*		*70 - 130*	*06/04/26 02:25*	*06/05/26 04:25*	*1*

Client Sample ID: FB KA'AMILO WELLS P2 (331-600-WL085)

Lab Sample ID: 380-217762-2
Date Collected: 06/01/26 13:00
Matrix: Water
Date Received: 06/03/26 10:05

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		06/04/26 02:25	06/05/26 04:35	1
Perfluorooctanesulfonic acid (PFOS)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:35	1
Perfluoroundecanoic acid (PFUnA)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:35	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:35	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:35	1
Perfluorohexanoic acid (PFHxA)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:35	1
Perfluorododecanoic acid (PFDoA)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:35	1
Perfluorooctanoic acid (PFOA)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:35	1
Perfluorodecanoic acid (PFDA)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:35	1
Perfluorohexanesulfonic acid (PFHxS)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:35	1

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

Job ID: 380-217762-1
SDG: PFAS: Ka'amilo Wells P2

Client Sample ID: FB KA'AMILO WELLS P2 (331-600-WL085)
Date Collected: 06/01/26 13:00
Date Received: 06/03/26 10:05

Lab Sample ID: 380-217762-2
Matrix: Water

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:35	1
Perfluoroheptanoic acid (PFHpA)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:35	1
Perfluorononanoic acid (PFNA)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:35	1
Perfluorotetradecanoic acid (PFTA)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:35	1
Perfluorotridecanoic acid (PFTrDA)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:35	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:35	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:35	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		2.0		ng/L		06/04/26 02:25	06/05/26 04:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d5-NEtFOSAA	*98*		*70 - 130*	*06/04/26 02:25*	*06/05/26 04:35*	*1*
13C2 PFHxA	*102*		*70 - 130*	*06/04/26 02:25*	*06/05/26 04:35*	*1*
13C2 PFDA	*97*		*70 - 130*	*06/04/26 02:25*	*06/05/26 04:35*	*1*
13C3-GenX	*98*		*70 - 130*	*06/04/26 02:25*	*06/05/26 04:35*	*1*

Action Limit Summary

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

Job ID: 380-217762-1
SDG: PFAS: Ka'amilo Wells P2

Client Sample ID: KA'AMILO WELLS P2 (331-600-WL085) — Lab Sample ID: 380-217762-1

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	EPA 537.1 V2	Total/NA
Perfluorooctanesulfonic acid (PFOS)	**4.8**		ng/L	**4**	2.0	EPA 537.1 V2	Total/NA
Perfluorooctanoic acid (PFOA)	4.0		ng/L	4	2.0	EPA 537.1 V2	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	4.0		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

Client Sample ID: FB KA'AMILO WELLS P2 (331-600-WL085) — Lab Sample ID: 380-217762-2

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	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: 380-217762-1
SDG: PFAS: Ka'amilo Wells P2

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

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

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	d5NEFOS (70-130)	PFHxA (70-130)	PFDA (70-130)	GenX (70-130)
380-217500-A-1-B MS	Matrix Spike	98	107	106	106
380-217500-A-1-C MSD	Matrix Spike Duplicate	101	102	102	96
380-217762-1	KA'AMILO WELLS P2 (331-600-WL085)	103	111	109	109
380-217762-2	FB KA'AMILO WELLS P2 (331-600-WL085)	98	102	97	98
LCS 380-231597/21-A	Lab Control Sample	99	113	104	105
MBL 380-231597/19-A	Method Blank	93	102	99	95
MRL 380-231597/20-A	Lab Control Sample	99	106	98	97

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: 380-217762-1
SDG: PFAS: Ka'amilo Wells P2

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

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		HFPODA	C6PFDA	13C5PHA	C4PFHA	C8PFOA	C9PFNA	13C7PUA	PFDoA
Lab Sample ID	Client Sample ID	(50-200)	(50-200)	(50-200)	(50-200)	(50-200)	(50-200)	(50-200)	(50-200)
380-217760-E-1-A MS	Matrix Spike	84	87	90	82	92	93	96	95
380-217760-F-1-A MSD	Matrix Spike Duplicate	90	94	95	95	97	102	99	100
380-217762-1	KA'AMILO WELLS P2 (331-600-WL085)	95	94	100	105	100	103	98	96
380-217762-2	FB KA'AMILO WELLS P2 (331-600-WL085)	72	48 *5-	81	74	71	66	39 *5-	32 *5-
380-218323-E-5-A MS	Matrix Spike	96	98	102	98	105	98	114	104
380-218323-F-5-A MSD	Matrix Spike Duplicate	92	91	94	91	99	98	105	101
LCS 380-232107/22-A	Lab Control Sample	79	81	86	85	86	89	87	86
LCS 380-232568/22-A	Lab Control Sample	93	93	102	99	97	101	100	99
MBL 380-232107/20-A	Method Blank	74	74	83	82	81	80	80	82
MBL 380-232568/20-A	Method Blank	82	92	97	98	100	99	100	96
MRL 380-232107/21-A	Lab Control Sample	77	88	87	87	93	96	96	96
MRL 380-232568/21-A	Lab Control Sample	93	96	107	109	107	108	106	107

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFBA	PFPeA	C3PFBS	C3PFHS	C8PFOS	42FTS	62FTS	82FTS
Lab Sample ID	Client Sample ID	(50-200)	(50-200)	(50-200)	(50-200)	(50-200)	(50-200)	(50-200)	(50-200)
380-217760-E-1-A MS	Matrix Spike	97	94	108	111	112	109	102	100
380-217760-F-1-A MSD	Matrix Spike Duplicate	101	95	106	111	113	100	99	95
380-217762-1	KA'AMILO WELLS P2 (331-600-WL085)	102	103	96	104	102	113	106	100
380-217762-2	FB KA'AMILO WELLS P2 (331-600-WL085)	97	86	102	111	109	113	103	104
380-218323-E-5-A MS	Matrix Spike	102	102	114	113	106	138	130	117
380-218323-F-5-A MSD	Matrix Spike Duplicate	99	98	114	111	109	139	135	127
LCS 380-232107/22-A	Lab Control Sample	86	81	107	108	110	99	101	99
LCS 380-232568/22-A	Lab Control Sample	98	95	101	105	105	114	108	107
MBL 380-232107/20-A	Method Blank	85	86	99	105	109	100	98	95
MBL 380-232568/20-A	Method Blank	98	101	99	106	107	109	107	107
MRL 380-232107/21-A	Lab Control Sample	93	91	99	105	110	98	101	97
MRL 380-232568/21-A	Lab Control Sample	101	103	103	109	108	118	111	114

Surrogate Legend

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

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

Lab Sample ID: MBL 380-231597/19-A
Matrix: Water
Analysis Batch: 231722

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 231597

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		06/04/26 02:25	06/05/26 01:13	1
Perfluorooctanesulfonic acid (PFOS)	<0.43		2.0		ng/L		06/04/26 02:25	06/05/26 01:13	1
Perfluoroundecanoic acid (PFUnA)	<0.42		2.0		ng/L		06/04/26 02:25	06/05/26 01:13	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<0.58		2.0		ng/L		06/04/26 02:25	06/05/26 01:13	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<0.42		2.0		ng/L		06/04/26 02:25	06/05/26 01:13	1
Perfluorohexanoic acid (PFHxA)	<0.46		2.0		ng/L		06/04/26 02:25	06/05/26 01:13	1
Perfluorododecanoic acid (PFDoA)	<0.54		2.0		ng/L		06/04/26 02:25	06/05/26 01:13	1
Perfluorooctanoic acid (PFOA)	<0.38		2.0		ng/L		06/04/26 02:25	06/05/26 01:13	1
Perfluorodecanoic acid (PFDA)	<0.31		2.0		ng/L		06/04/26 02:25	06/05/26 01:13	1
Perfluorohexanesulfonic acid (PFHxS)	<0.32		2.0		ng/L		06/04/26 02:25	06/05/26 01:13	1
Perfluorobutanesulfonic acid (PFBS)	<0.37		2.0		ng/L		06/04/26 02:25	06/05/26 01:13	1
Perfluoroheptanoic acid (PFHpA)	<0.39		2.0		ng/L		06/04/26 02:25	06/05/26 01:13	1
Perfluorononanoic acid (PFNA)	<0.40		2.0		ng/L		06/04/26 02:25	06/05/26 01:13	1
Perfluorotetradecanoic acid (PFTA)	<0.54		2.0		ng/L		06/04/26 02:25	06/05/26 01:13	1
Perfluorotridecanoic acid (PFTrDA)	<0.36		2.0		ng/L		06/04/26 02:25	06/05/26 01:13	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<0.30		2.0		ng/L		06/04/26 02:25	06/05/26 01:13	1
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<0.30		2.0		ng/L		06/04/26 02:25	06/05/26 01:13	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<0.60		2.0		ng/L		06/04/26 02:25	06/05/26 01:13	1

Surrogate	*MBL %Recovery*	*MBL Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
d5-NEtFOSAA	*93*		*70 - 130*	*06/04/26 02:25*	*06/05/26 01:13*	*1*
13C2 PFHxA	*102*		*70 - 130*	*06/04/26 02:25*	*06/05/26 01:13*	*1*
13C2 PFDA	*99*		*70 - 130*	*06/04/26 02:25*	*06/05/26 01:13*	*1*
13C3-GenX	*95*		*70 - 130*	*06/04/26 02:25*	*06/05/26 01:13*	*1*

Lab Sample ID: LCS 380-231597/21-A
Matrix: Water
Analysis Batch: 231722

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 231597

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	25.1	25.7		ng/L		103	70 - 130
Perfluorooctanesulfonic acid (PFOS)	25.1	25.8		ng/L		103	70 - 130
Perfluoroundecanoic acid (PFUnA)	25.1	25.3		ng/L		101	70 - 130
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	25.1	24.1		ng/L		96	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	25.1	22.9		ng/L		91	70 - 130
Perfluorohexanoic acid (PFHxA)	25.1	25.8		ng/L		103	70 - 130
Perfluorododecanoic acid (PFDoA)	25.1	25.2		ng/L		100	70 - 130
Perfluorooctanoic acid (PFOA)	25.1	25.5		ng/L		102	70 - 130
Perfluorodecanoic acid (PFDA)	25.1	25.7		ng/L		102	70 - 130

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

Lab Sample ID: LCS 380-231597/21-A
Matrix: Water
Analysis Batch: 231722

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 231597

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perfluorohexanesulfonic acid (PFHxS)	25.1	26.7		ng/L		106	70 - 130
Perfluorobutanesulfonic acid (PFBS)	25.1	25.2		ng/L		100	70 - 130
Perfluoroheptanoic acid (PFHpA)	25.1	26.0		ng/L		104	70 - 130
Perfluorononanoic acid (PFNA)	25.1	25.8		ng/L		103	70 - 130
Perfluorotetradecanoic acid (PFTA)	25.1	19.9		ng/L		79	70 - 130
Perfluorotridecanoic acid (PFTrDA)	25.1	24.7		ng/L		98	70 - 130
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	25.1	24.4		ng/L		97	70 - 130
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	25.1	24.3		ng/L		97	70 - 130
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	25.1	24.4		ng/L		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
d5-NEtFOSAA	*99*		*70 - 130*
13C2 PFHxA	*113*		*70 - 130*
13C2 PFDA	*104*		*70 - 130*
13C3-GenX	*105*		*70 - 130*

Lab Sample ID: MRL 380-231597/20-A
Matrix: Water
Analysis Batch: 231722

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 231597

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	2.01	1.94	J	ng/L		97	50 - 150
Perfluorooctanesulfonic acid (PFOS)	2.01	1.94	J	ng/L		96	50 - 150
Perfluoroundecanoic acid (PFUnA)	2.01	2.06	J	ng/L		103	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	2.01	1.84	J	ng/L		92	50 - 150
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.01	2.00	J	ng/L		100	50 - 150
Perfluorohexanoic acid (PFHxA)	2.01	2.03	J	ng/L		101	50 - 150
Perfluorododecanoic acid (PFDoA)	2.01	1.96	J	ng/L		97	50 - 150
Perfluorooctanoic acid (PFOA)	2.01	2.05	J	ng/L		102	50 - 150
Perfluorodecanoic acid (PFDA)	2.01	1.90	J	ng/L		94	50 - 150
Perfluorohexanesulfonic acid (PFHxS)	2.01	2.06	J	ng/L		103	50 - 150
Perfluorobutanesulfonic acid (PFBS)	2.01	2.04	J	ng/L		102	50 - 150
Perfluoroheptanoic acid (PFHpA)	2.01	2.13	J	ng/L		106	50 - 150
Perfluorononanoic acid (PFNA)	2.01	2.03	J	ng/L		101	50 - 150
Perfluorotetradecanoic acid (PFTA)	2.01	1.76	J	ng/L		88	50 - 150

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

Lab Sample ID: MRL 380-231597/20-A
Matrix: Water
Analysis Batch: 231722

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 231597

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Perfluorotridecanoic acid (PFTrDA)			2.01	2.07	J	ng/L		103	50 - 150		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)			2.01	1.88	J	ng/L		94	50 - 150		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)			2.01	1.87	J	ng/L		93	50 - 150		
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)			2.01	1.97	J	ng/L		98	50 - 150		

Surrogate	*MRL %Recovery*	*MRL Qualifier*	*Limits*
d5-NEtFOSAA	*99*		*70 - 130*
13C2 PFHxA	*106*		*70 - 130*
13C2 PFDA	*98*		*70 - 130*
13C3-GenX	*97*		*70 - 130*

Lab Sample ID: 380-217500-A-1-B MS
Matrix: Water
Analysis Batch: 231722

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 231597

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		25.2	26.1		ng/L		104	70 - 130		
Perfluorooctanesulfonic acid (PFOS)	<2.0		25.2	26.3		ng/L		103	70 - 130		
Perfluoroundecanoic acid (PFUnA)	<2.0		25.2	26.9		ng/L		107	70 - 130		
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.2	25.0		ng/L		99	70 - 130		
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		25.2	24.6		ng/L		98	70 - 130		
Perfluorohexanoic acid (PFHxA)	2.4		25.2	28.6		ng/L		104	70 - 130		
Perfluorododecanoic acid (PFDoA)	<2.0		25.2	26.4		ng/L		105	70 - 130		
Perfluorooctanoic acid (PFOA)	<2.0		25.2	27.0		ng/L		102	70 - 130		
Perfluorodecanoic acid (PFDA)	<2.0		25.2	25.6		ng/L		102	70 - 130		
Perfluorohexanesulfonic acid (PFHxS)	2.6		25.2	30.9		ng/L		113	70 - 130		
Perfluorobutanesulfonic acid (PFBS)	<2.0		25.2	28.5		ng/L		109	70 - 130		
Perfluoroheptanoic acid (PFHpA)	<2.0		25.2	28.1		ng/L		109	70 - 130		
Perfluorononanoic acid (PFNA)	<2.0		25.2	26.2		ng/L		104	70 - 130		
Perfluorotetradecanoic acid (PFTA)	<2.0		25.2	24.0		ng/L		95	70 - 130		
Perfluorotridecanoic acid (PFTrDA)	<2.0		25.2	26.8		ng/L		106	70 - 130		
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		25.2	26.3		ng/L		105	70 - 130		
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		25.2	26.2		ng/L		104	70 - 130		

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

Lab Sample ID: 380-217500-A-1-B MS
Matrix: Water
Analysis Batch: 231722

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 231597

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		25.2	27.2		ng/L		108	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
d5-NEtFOSAA	*98*		*70 - 130*
13C2 PFHxA	*107*		*70 - 130*
13C2 PFDA	*106*		*70 - 130*
13C3-GenX	*106*		*70 - 130*

Lab Sample ID: 380-217500-A-1-C MSD
Matrix: Water
Analysis Batch: 231722

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 231597

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA/GenX)	<2.0		25.2	23.4		ng/L		93	70 - 130	11	30
Perfluorooctanesulfonic acid (PFOS)	<2.0		25.2	26.2		ng/L		102	70 - 130	1	30
Perfluoroundecanoic acid (PFUnA)	<2.0		25.2	24.4		ng/L		97	70 - 130	10	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<2.0		25.2	24.1		ng/L		96	70 - 130	4	30
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<2.0		25.2	23.6		ng/L		94	70 - 130	4	30
Perfluorohexanoic acid (PFHxA)	2.4		25.2	26.1		ng/L		94	70 - 130	9	30
Perfluorododecanoic acid (PFDoA)	<2.0		25.2	24.2		ng/L		96	70 - 130	9	30
Perfluorooctanoic acid (PFOA)	<2.0		25.2	25.4		ng/L		95	70 - 130	6	30
Perfluorodecanoic acid (PFDA)	<2.0		25.2	23.2		ng/L		92	70 - 130	10	30
Perfluorohexanesulfonic acid (PFHxS)	2.6		25.2	28.9		ng/L		105	70 - 130	7	30
Perfluorobutanesulfonic acid (PFBS)	<2.0		25.2	27.2		ng/L		104	70 - 130	5	30
Perfluoroheptanoic acid (PFHpA)	<2.0		25.2	24.9		ng/L		97	70 - 130	12	30
Perfluorononanoic acid (PFNA)	<2.0		25.2	25.2		ng/L		100	70 - 130	4	30
Perfluorotetradecanoic acid (PFTA)	<2.0		25.2	22.1		ng/L		88	70 - 130	8	30
Perfluorotridecanoic acid (PFTrDA)	<2.0		25.2	24.6		ng/L		98	70 - 130	8	30
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid(9Cl-PF3ONS)	<2.0		25.2	24.3		ng/L		97	70 - 130	8	30
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)	<2.0		25.2	25.1		ng/L		100	70 - 130	4	30
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<2.0		25.2	24.1		ng/L		96	70 - 130	12	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
d5-NEtFOSAA	*101*		*70 - 130*
13C2 PFHxA	*102*		*70 - 130*
13C2 PFDA	*102*		*70 - 130*

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

Lab Sample ID: 380-217500-A-1-C MSD
Matrix: Water
Analysis Batch: 231722

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 231597

Surrogate	MSD %Recovery	MSD Qualifier	Limits
13C3-GenX	96		70 - 130

QC Association Summary

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

Job ID: 380-217762-1
SDG: PFAS: Ka'amilo Wells P2

LCMS

Prep Batch: 231597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-217762-1	KA'AMILO WELLS P2 (331-600-WL085)	Total/NA	Water	537.1 DW	
380-217762-2	FB KA'AMILO WELLS P2 (331-600-WL085)	Total/NA	Water	537.1 DW	
MBL 380-231597/19-A	Method Blank	Total/NA	Water	537.1 DW	
LCS 380-231597/21-A	Lab Control Sample	Total/NA	Water	537.1 DW	
MRL 380-231597/20-A	Lab Control Sample	Total/NA	Water	537.1 DW	
380-217500-A-1-B MS	Matrix Spike	Total/NA	Water	537.1 DW	
380-217500-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	537.1 DW	

Analysis Batch: 231722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-217762-1	KA'AMILO WELLS P2 (331-600-WL085)	Total/NA	Water	EPA 537.1 V2	231597
380-217762-2	FB KA'AMILO WELLS P2 (331-600-WL085)	Total/NA	Water	EPA 537.1 V2	231597
MBL 380-231597/19-A	Method Blank	Total/NA	Water	EPA 537.1 V2	231597
LCS 380-231597/21-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	231597
MRL 380-231597/20-A	Lab Control Sample	Total/NA	Water	EPA 537.1 V2	231597
380-217500-A-1-B MS	Matrix Spike	Total/NA	Water	EPA 537.1 V2	231597
380-217500-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Water	EPA 537.1 V2	231597

Lab Chronicle

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

Job ID: 380-217762-1
SDG: PFAS: Ka'amilo Wells P2

Client Sample ID: KA'AMILO WELLS P2 (331-600-WL085)

Lab Sample ID: 380-217762-1

Date Collected: 06/01/26 13:00
Matrix: Water
Date Received: 06/03/26 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	537.1 DW			231597	G9MN	EA POM	06/04/26 02:25
Total/NA	Analysis	EPA 537.1 V2		1	231722	Y5FM	EA POM	06/05/26 04:25

Client Sample ID: FB KA'AMILO WELLS P2 (331-600-WL085)

Lab Sample ID: 380-217762-2

Date Collected: 06/01/26 13:00
Matrix: Water
Date Received: 06/03/26 10:05

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	537.1 DW			231597	G9MN	EA POM	06/04/26 02:25
Total/NA	Analysis	EPA 537.1 V2		1	231722	Y5FM	EA POM	06/05/26 04:35

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: 380-217762-1
SDG: PFAS: Ka'amilo Wells P2

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: 380-217762-1
SDG: PFAS: Ka'amilo Wells P2

Method	Method Description	Protocol	Laboratory
EPA 537.1 V2	EPA 537.1 Ver. 2.0 March 2020	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: 380-217762-1
SDG: PFAS: Ka'amilo Wells P2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
380-217762-1	KA'AMILO WELLS P2 (331-600-WL085)	Water	06/01/26 13:00	06/03/26 10:05	Hawaii
380-217762-2	FB KA'AMILO WELLS P2 (331-600-WL085)	Water	06/01/26 13:00	06/03/26 10:05	Hawaii

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

Chain of Custody Record

eurofins | Environment Testing America

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

Analysis Requested

360-217762 COC

Preservation Codes

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Y - Trizma
Z - other (specify)
Other: NH4 Acetate

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	537 1_DW_PREC - 537 1 Full List	533 All Analytes	Total Number of containers	Special Instructions/Note:
			Preservation Code:				Y	Z		
KA'AMILO WELLS P2 (331-600-WL085)	1-Jun-2026	13:00	G	Water			3	3		
FB KA'AMILO WELLS P2 (331-600-WL085)	1-Jun-2026	13:00					1	1		

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

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

Deliverable Requested I II III, IV Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: Fed Ex. 872566540337

	Date/Time	Company	Received by	Date/Time	Company
Relinquished by: [redacted]	6/2/2026 12.00	HBWS	[signature]	6/3/26 1005	EAP
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: (63A) 6.3+1.0-1.3 gel- frozen

Ver 01/16/2019

Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-217762-1
SDG Number: PFAS: Ka'amilo Wells P2

Login Number: 217762
List Number: 1
Creator: Ngo, Theodore

List Source: Eurofins Pomona

Question	Answer	Comment
The coolers custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
Samples were received on ice.	True	
Cooler(s) Temperature is acceptable.	True	
Cooler(s) Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and is legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
ClO4 headspace requirement met (>50% for CA, >30% for other states).	N/A	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	