

ANALYTICAL REPORT

Eurofins Eaton Monrovia
750 Royal Oaks Drive
Suite 100
Monrovia, CA 91016
Tel: (626)386-1100

Laboratory Job ID: 380-22202-1
Client Project/Site: RED-HILL

For:
City & County of Honolulu
630 South Beretania Street
Public Service Bldg. Room 308
Honolulu, Hawaii 96843

Attn: Mr. Erwin Kawata



Authorized for release by:

10/26/2022 5:57:39 PM

Kathleen Robb, Client Program Manager
(949)261-1022

Kathleen.Robb@et.eurofinsus.com

Designee for

Rachelle Arada, Manager of Project Management
(626)386-1106

Rachelle.Arada@et.eurofinsus.com

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Results relate only to the items tested and the sample(s) as received by the laboratory.

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)



Kathleen Robb
Client Program Manager
10/26/2022 5:57:39 PM





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Definitions/Glossary

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

Job ID: 380-22202-1

Qualifiers

Subcontract

Qualifier	Qualifier Description
U	This analyte was not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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/Site: RED-HILL

Job ID: 380-22202-1

Job ID: 380-22202-1

Laboratory: Eurofins Eaton Monrovia

Narrative

**Job Narrative
380-22202-1**

Comments

No additional comments.

Receipt

The sample was received on 9/28/2022 9:50 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.4° C.

Subcontract non-Sister

See attached subcontract report.

Subcontract Work

Method 8015 Ethanol: This method was subcontracted to EMAX Laboratories Inc. The subcontract laboratory certification is different from that of the facility issuing the final report.

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Detection Summary

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

Job ID: 380-22202-1

Client Sample ID: MOANALUA WELLS

Lab Sample ID: 380-22202-1

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins Eaton Monrovia

Client Sample Results

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

Job ID: 380-22202-1

Client Sample ID: MOANALUA WELLS

Lab Sample ID: 380-22202-1

Date Collected: 09/26/22 10:00

Matrix: Water

Date Received: 09/28/22 09:50

Method: 8015 Ethanol - SW846 8015B Gasoline Range Organics

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ETHANOL	ND	U	2000		ug/L			09/30/22 14:00	1

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QC Sample Results

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

Job ID: 380-22202-1

Method: 8015 Ethanol - SW846 8015B Gasoline Range Organics

Lab Sample ID: 22MEI004WB
Matrix: WATER
Analysis Batch: 22MEI004W

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ETHANOL	ND	U	2000		ug/L			09/30/22 11:57	1

Lab Sample ID: 22MEI004WL
Matrix: WATER
Analysis Batch: 22MEI004W

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
ETHANOL	10000	10500		ug/L		105	60 - 130

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QC Association Summary

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

Job ID: 380-22202-1

Subcontract

Analysis Batch: 22MEI004W

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
380-22202-1	MOANALUA WELLS	Total/NA	Water	8015 Ethanol	
22MEI004WB	Method Blank	Total/NA	WATER	8015 Ethanol	
22MEI004WL	Lab Control Sample	Total/NA	WATER	8015 Ethanol	

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Lab Chronicle

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

Job ID: 380-22202-1

Client Sample ID: MOANALUA WELLS

Lab Sample ID: 380-22202-1

Date Collected: 09/26/22 10:00

Matrix: Water

Date Received: 09/28/22 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015 Ethanol		1	22MEI004W	ASitu		09/30/22 14:00

Laboratory References:

= EMAX Laboratories Inc, 3051 Fujita Street, Torrance, CA 90505

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Method Summary

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

Job ID: 380-22202-1

Method	Method Description	Protocol	Laboratory
8015B	SW846 8015B Gasoline Range Organics	SW846	

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

= EMAX Laboratories Inc, 3051 Fujita Street, Torrance, CA 90505



Sample Summary

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

Job ID: 380-22202-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
380-22202-1	MOANALUA WELLS	Water	09/26/22 10:00	09/28/22 09:50

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3051 Fujita Street
Torrance, CA 90505
Tel: (310)-618-8889

Date: 10-17-2022
EMAX Batch No.: 221350

Attn: Jackie Contreras

Eurofins Eaton Analytical
750 Royal Oaks Dr., Suite 100
Monrovia, CA 91016-3629

Subject: Laboratory Report
Project: 380-22202

Enclosed is the Laboratory report for samples received on 09/29/22.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
380-22202-1	1350-01	09/26/22	WATER	ETHANOL

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Caspar J. Pang
Caspar J. Pang
Laboratory Director

This report is confidential and intended solely for the use of the individual or entity to whom it is addressed. This report shall not be reproduced except in full or without the written approval of EMAX.

EMAX certifies that results included in this report meets all TNI & DOD requirements unless noted in the Case Narrative.

NELAP Accredited Certificate Number CA002912022-22
ANAB Accredited DoD ELAP and ISO/IEC 17025 Certificate Number L2278 Testing
California ELAP Accredited Certificate Number 2672

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range or estimated value.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

380-22202

METHOD SW8015C
ALCOHOLS BY GC

SDG#: 221350



CASE NARRATIVE

Client : EUROFINs EATON ANALYTICAL

Project: 380-22202

SDG : 22I350

METHOD SW8015C
ALCOHOLS BY GC

One(1) water sample was received on 09/29/22 to be analyzed for Alcohols by GC in accordance with Method SW8015C and project specific requirements.

Holding Time

The sample was analyzed within the prescribed holding time.

Calibration

Multi-calibration points were generated to establish initial calibration (ICAL). ICAL was verified using a secondary source (ICV). Continuing calibration (CCV) verifications were carried out on a frequency specified by the project. All calibration requirements were within acceptance criteria. Refer to calibration summary forms of ICAL, ICV and CCV for details. MRL was analyzed as required by the project. Refer to MRL summary form for details.

Method Blank

Method blank was prepared and analyzed at the frequency required by the project. For this SDG, one(1) method blank was analyzed. MEI004WB - result was compliant to project requirement. Refer to sample result summary form for details.

Lab Control Sample

Lab control sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of LCS/LCD was analyzed. MEI004WL/MEI004WC were within LCS limits. Refer to LCS summary form for details.

Matrix QC Sample

No matrix QC sample was provided on this SDG. Ethanol was within MS QC limits in I334-01M/I334-01S. Refer to Matrix QC summary form for details.

Sample Analysis

The sample was analyzed according to prescribed analytical procedures. Results were evaluated in accordance to project requirements. For this SDG, all quality control requirements were met.

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SAMPLE RESULTS

METHOD SW8015C
ALCOHOLS BY GC

```
=====
Client      : EUROFINS EATON ANALYTICAL      Date Collected: 09/26/22
Project     : 380-22202                      Date Received: 09/29/22
Batch No.   : 22I350                         Date Extracted: NA
Sample ID   : 380-22202-1                   Date Analyzed: 09/30/22 14:00
Lab Samp ID: I350-01                        Dilution Factor: 1
Lab File ID: TI30012A                       Matrix          : WATER
Ext Btch ID: MEI004W                        % Moisture      : NA
Calib. Ref.: TI30003A                       Instrument ID   : GCT050
=====
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
-----	-----	-----	-----
ETHANOL	ND	2000	500

RL : Reporting Limit



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QC SUMMARIES

METHOD SW8015C
ALCOHOLS BY GC

```
=====
Client      : EUROFINS EATON ANALYTICAL      Date Collected: NA
Project     : 380-22202                      Date Received: NA
Batch No.   : 221350                         Date Extracted: NA
Sample ID   : MBLK1W                         Date Analyzed: 09/30/22 11:57
Lab Samp ID: MEI004WB                       Dilution Factor: 1
Lab File ID: TI30005A                       Matrix          : WATER
Ext Btch ID: MEI004W                        % Moisture      : NA
Calib. Ref.: TI30003A                      Instrument ID   : GCT050
=====
```

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
ETHANOL	ND	2000	500

RL : Reporting Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: EUROFINS EATON ANALYTICAL
PROJECT: 380-22202
BATCH NO.: 221350
METHOD: METHOD SW8015C

=====

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: MEI004WB MEI004WL MEI004WC
LAB FILE ID: TI30005A TI30006A TI30007A
DATE EXTRACTED: NA NA NA DATE COLLECTED: NA
DATE ANALYZED: 09/30/2211:57 09/30/2212:11 09/30/2212:25 DATE RECEIVED: NA
PREP. BATCH: MEI004W MEI004W MEI004W
CALIB. REF: TI30003A TI30003A TI30003A

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ethanol	ND	10000	10500	105	10000	11200	112	6	60-130	30

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: EUROFINS EATON ANALYTICAL
PROJECT: 380-22067
BATCH NO.: 221334
METHOD: METHOD SW8015C

=====

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: 380-22067-1
LAB SAMP ID: I334-01 I334-01M I334-01S
LAB FILE ID: T130008A T130009A T130010A
DATE EXTRACTED: NA NA NA DATE COLLECTED: 09/26/22
DATE ANALYZED: 09/30/2212:40 09/30/2213:11 09/30/2213:26 DATE RECEIVED: 09/28/22
PREP. BATCH: ME1004W ME1004W ME1004W
CALIB. REF: T130003A T130003A T130003A

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SPIKE AMT (ug/L)	MS RSLT (ug/L)	MS % REC	SPIKE AMT (ug/L)	MSD RSLT (ug/L)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Ethanol	ND	10000	10500	105	10000	9650	97	9	60-130	30

ORIGIN ID:HIKA (808) 748-5840
BWS CHEMLAB
HONOLULU BOARD OF WATER SUPPLY
630 S. BERETANIA ST.
CHEMICAL LABORATORY
HONOLULU, HI 96843
UNITED STATES US

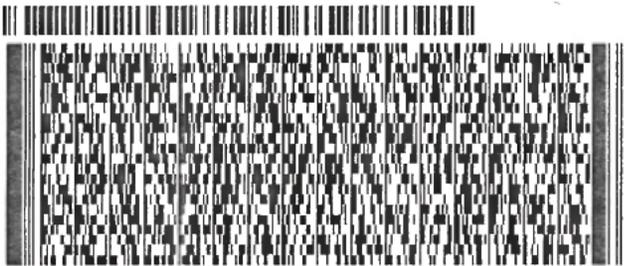
SHIP DATE: 27SEP22
ACTWGT: 63.00 LB
CAD: 100205419/INET4530

BILL RECIPIENT

TO **M. VASQUEZ**
EUROFINS EATON ANALYTICAL, INC
750 ROYAL OAKS DR
SUITE 100
MONROVIA CA 91016

(626) 386-1178 REF:
INV PO: DEPT:

581JIEC6IFE2D



423022081201uv

WED - 28 SEP 10:30A

PRIORITY OVERNIGHT

3 of 3

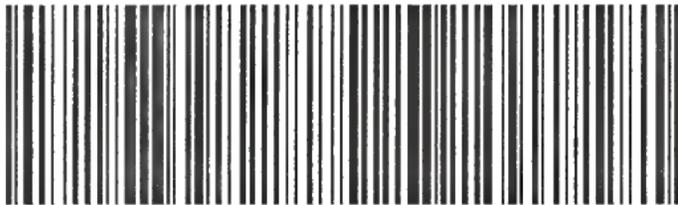
MPS# 7700 5255 0814
0263

Mstr# 7700 5255 0619

0201

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91016
CA-US BUR

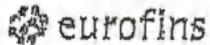


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Eaton Analytical

INTERNAL CHAIN OF CUSTODY RECORD

EEA Folder Number:

SAMPLE TEMP RECEIVED:

Notes: If samples are out of temperature range, let the ASMs know. ASMs will determine whether to proceed with analysis or not.

SAMPLES REC'D DAY OF COLLECTION? Yes / No

IR Gun ID = 401 (Observation = 55 °C) (Corr. Factor 0.1 °C) (Final = 54 °C)

TYPE OF ICE: Real Synthetic No Ice CONDITION OF ICE: Frozen Partially Frozen Thawed N/A

METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other: _____

Compliance Acceptance Criteria:

- 1) Chemistry: >0, ≤6°C, not frozen (NELAP) (if received after 24 hrs of sample collection)
- 2) Microbiology, Distribution: < 10°C, not frozen (can be ≥10°C if received on ice the same day as sample collection, within 8 hours)
- 3) Microbiology, Surface Water: < 10°C (if received after 2 hours of sample collection)

If out of temperature range for both Chemistry and Microbiology samples and temperature does not confirm, then measure the temperature of each quadrant and record each temperature of the quadrants:

1 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)	2 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)
3 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)	4 = (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C)

4 Dioxin (1813 or 2,3,7,8 TCDD): must be between 0-4 °C, not frozen (if received after 24 hrs of sample collection)

5) pH Check. Manufacturer: _____ Lot Number: _____ pH strip type: 0 - 14 or _____ Expiration Date _____ Results: _____

6) Chlorine check. Manufacturer: Sansafe. Lot No.: _____ Expiration Date: _____ Results: _____

7) VOA and Radon Headspace:

No Samples with Headspace:

Samples with Headspace (see below):

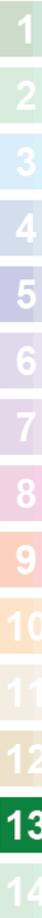
Headspace Documentation (use additional VOC and Radon Internal COFC for additional bottles)

Exempt from headspace concerns: Methods 815.4, HAA(8251,852), 505, 3PME, @CH, 532LCMS, 558, 538, Anatoxin, LCMS methods using 40 ml vials, International clients

Samp ID															
Bottle #	Nons/<8 mm	>8mm	Test	Bottle #	Nons/<8 mm	>8mm	Test	Bottle #	Nons/<8 mm	>8mm	Test	Bottle #	Nons/<8 mm	>8mm	Test

Note Sample IDs which have dissimilar headspace (i.e. potential sampling errors): _____

RECEIVED BY	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
		Chris Beach	Eurofins Eaton Analytical	9.28.22	CASE
SAMPLES CHECKED AGAINST COC BY:	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
			Eurofins Eaton Analytical		



Login Sample Receipt Checklist

Client: City & County of Honolulu

Job Number: 380-22202-1

Login Number: 22202

List Source: Eurofins Eaton Monrovia

List Number: 1

Creator: Castro, Heidi

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and 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	
Samples do not require splitting or compositing.	True	
Container provided by EEA	True	

