

750 Royal Oaks Drive, Suite 100  
Monrovia, California 91016-3629  
Tel: (626) 386-1100  
Fax: (866) 988-3757  
1 800 566 LABS (1 800 566 5227)

## Laboratory Report

for

Honolulu Board of Water Supply  
630 South Beretania Street  
Public Service Bldg." Room 308  
Honolulu, HI 96843  
Attention: Erwin Kawata  
Fax: 808-550-5018



Utah ELCP CA00006

DEB: Debbie L Frank  
Project Manager

Report: 997299  
Project: RED-HILL  
Group: Weekly TPH-8015\_RED-HILL (2022) - EMAX

\* Accredited in accordance with TNI 2016 and ISO/IEC 17025:2017.

\* Laboratory certifies that the test results meet all TNI 2016 and ISO/IEC 17025:2017 requirements unless noted under the individual analysis.

\* As applicable, this report consists of the cover page, State Certification List, ISO 17025 Accredited Method List, Acknowledgement of Samples Received, Comments, Hits Report, Data Report, QC Summary, QC Report and Regulatory Forms.

\* Test results relate only to the sample(s) tested.

\* Test results apply to the sample(s) as received, unless otherwise noted in the comments report (ISO/IEC 17025:2017).

\* This report shall not be reproduced except in full, without the written approval of the laboratory.

\* This report includes ISO/IEC 17025 and non-ISO 17025 accredited methods.

## STATE CERTIFICATION LIST

State	Certification Number	State	Certification Number
Alabama	41060	Montana	Cert 0035
Arizona	AZ0778	Nebraska	NE-OS-21-13
Arkansas	CA00006	Nevada	CA00006
California	2813	New Hampshire *	2959
Colorado	CA00006	New Jersey *	CA 008
Connecticut	PH-0107	New Mexico	CA00006
Delaware	CA 006	New York *	11320
Florida *	E871024	North Carolina	06701
Georgia	947	North Dakota	R-009
Guam	21-008R	Ohio - 537.1	87786
Hawaii	CA00006	Oregon *	4034
Idaho	CA00006	Pennsylvania *	68-00565
Illinois	200033	Puerto Rico	CA00006
Indiana	C-CA-01	Rhode Island	LAO00326
Iowa – Asbestos	413	South Carolina	87016
Kansas *	E-10268	South Dakota	CA11320
Kentucky	90107	Tennessee	TN02839
Louisiana *	LA008	Texas *	T104704230-20-18
Maine	CA00006	Utah (Primary AB) *	CA00006
Maryland	224	Vermont	VT0114
Marianas Islands	MP0004	Virginia *	460260
Massachusetts	M-CA006	Washington	C838
Michigan	9906	EPA Region 5	CA00006
Mississippi	CA00006	Los Angeles County Sanitation Districts	10264

\* NELAP/TNI Recognized Accreditation Bodies

ISO/IEC 17025:2017 Accredited Method List

The test listed below are accredited and met the requirements of ISO/IEC 17025 as verify by A2LA.

Refer to our certificates and scope of accreditations (no. 5890-1 and 5890-2) found at:

<https://www.eurofinsus.com/Eaton>

Test(s)	Method(s)	Potable Water *	Waste Water
Enterococci	Enterolert	x	x
Escherichia coli (Enumeration)	SM 9221 B.1 SM 9221 F	x	
Fecal Coliform (P/A and Enumeration)	SM 9221 C (MTF/EC), SM 9221 E (MTF/EC)	x	x
Fecal Streptococci and Enterococci	SM 9230 B	x	x
Heterotrophic Bacteria	SM 9215 B	x	
Legionella	Legiolert®	x	
Pseudomonas aeruginosa	Idexx Pseudalert	x	
Total Coliform (P/A and Enumeration)	SM 9221A, SM 9221B, SM 9221 C	x	x
Total Coliform, Total Coliform with Chlorine Present	SM 9221 B	x	x
Total Coliform/E. coli (P/A and Enumeration, Idexx Colilert, Idexx Colilert 18, Colisure)	SM 9223	x	
Total Microcystins and Nodularins	EPA 546	X	
Yeast and Mold	SM 9610	x	
1,2,3-Trichloropropane (TCP) at 5 PPT	CA SRL 524M-TCP	x	
1,4-Dioxane	EPA 522	x	
2,3,7,8-TCDD	Modified EPA 1613 B	x	
Acrylamide	+ LCMS 2440)	x	
Algal Toxins/Microcys in	+ LCMS 3570	x	
Alkalinity	SM 2320B	x	x
Ammonia	EPA 350.1, SM 4500-NH3 H		x
Asbestos	EPA 100.2	x	x
Bicarbonate Alkalinity as HCO3	SM 2330 B	x	x
BOD/CBOD	SM 5210 B		x
Bromate	+ LCMS- 2447	x	
Carbonate as CO3	SM 2330 B	x	x
Carbonyls	EPA 556	x	x
Chemical Oxygen Demand	EPA 410.4, SM 5220D		x
Chlorinated Acids	EPA 515.4	x	
Chlorine Dioxide	Palin Test Chlordio X Plus, SM 4500-CLO2 D	x	
Chlorine, Free, Combined, Total Residual, Chloramines	SM 4500-Cl G	x	
Color	SM2120B	x	
Conductivity	EPA 120.1, SM 2510B	x	x
Corrosivity (Langelier Index), Carbonate as CO3, Hydroxide as OH Calculated	SM 2330 B	x	
Cyanide (Amenable)	SM 4500-CN G	x	x
Cyanide (Free)	SM 4500CN F	x	x
Cyanide (Total)	EPA 335.4	x	x
Cyanogen Chloride (Screen)	+ 335 Mod (WC-24467)	x	
Diquat and Paraquat	EPA 549.2	x	
DBP and HAA	SM 6251 B	x	
Dissolved Organic Carbon	SM 5310 C	x	
Dissolved Oxygen	SM 4500-O G		x
EDB/DCBP/TCP	EPA 504.1	x	
EDB/DBCP and Disinfection Byproducts	EPA 551.1	x	
EDTA and NTA	+ WC-2454	x	
Endothall	EPA 548.1, +(LCMS-2445)	x	
Fluoride	SM 4500F C	x	x
Glyphosate	EPA 547	x	
Glyphosate and AMPA	+ LCMS-3618	x	
Gross Alpha and Gross Beta	EPA 900.0	x	x

Test(s)	Method(s)	Potable Water *	Waste Water
Gross Alpha coprecipitation	SM 7110 C	x	x
Hardness	SM 2340 B	x	x
Hexavalent Chromium	EPA 218.6,	x	x
Hexavalent Chromium	EPA 218.7,	x	
Hexavalent Chromium	SM 3500-Cr B		x
Inorganic Anions and DBPs	EPA 300.0	x	x
Norganic Anions and DBPs	EPA 300.1	x	
Kjeldahl Nitrogen	EPA 351.2		x
Metals	EPA 200.7, EPA200.8	x	x
Nitrosamines	EEA-Agilent 521.1 (GCMS-24250)	x	
Nitrate/Nitrite Nitrogen	EPA 353.2	x	x
Odor	SM2150B	x	
Organohalide Pesticides and PCB	EPA 505	x	
Ortho Phosphate	SM 4500P E	x	
Oxyhalides Disinfect ion Byproducts	EPA 317.0	x	
Perchlorate	EPA 331.0	x	
Perchlorate (Low and High Levels)	EPA 314.0	x	
Perfluorinated Alkyl Acids	EPA 533, EPA 537, EPA 537.1	x	
PPCP and EDC	+ LCMS-2443	x	
pH	EPA 150.1 SM 4500-H+ B	x	x
Phenolics – Low Level	+WC 2493 (EPA 420.2 and EPA 420.4 MOD)	x	x
Phenylurea Pesticides/Herbicides	+ LCMS-2448	x	
Radium-226, Radium-228	GA Tech (Rad-2374)	x	
Radon-222	SM 7500RN	x	
Residue (Filterable)	SM 2540C	x	x
Residue (Non-Filterable)	SM 2540D		x
Residue (Total)	SM 2540B		x
Residue (Volatile)	EPA 160.4		x
Semi-Volatile Compounds	EPA 525.2	x	
Silica	SM 4500-SiO2 C	x	x
Sulfide	SM 4500-S D		x
Sulfite	SM 4500-SO3 B	x	x
Surfactants	SM 5540C	x	x
Taste and Odor	SM 6040 E	x	
Total Organic Carbon	SM 5310 C	x	x
Total Phenols	EPA 420.1		x
Total Phenols	EPA 420.4	x	x
Triazine Pesticides and their Degradates	+ LCMS-3617	x	
Turbidity	EPA 180.1	x	x
Uranium by ICP/MS	EPA 200.8	x	
UV 254 Organic Constituents	SM 5910B	x	
VOCs	EPA 524.2	x	
VOCs	+(GCMS 2412) by EPA 524.2 modified	x	

(\*) includes: Bottled Water, Drinking Water and Water as Component of Food & Beverage.

(+) In-House Method

**Acknowledgement of Samples Received**

Addr: **Honolulu Board of Water Supply**  
630 South Beretania Street  
Public Service Bldg." Room 308  
Honolulu, HI 96843

Attn: Erwin Kawata  
Phone: 808-748-5091

Client ID: HONOLULU  
Folder #: 997299  
Project: RED-HILL  
Sample Group: Weekly TPH-8015\_RED-HILL (2022)  
- EMAX  
Project Manager: Debbie L Frank  
Phone: (626) 386-1149  
PO #: C20525101 exp 05312023

The following samples were received from you on **April 06, 2022 at 1404**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #	Sample ID	Sample Date
<u>202204061401</u>	Halawa Shaft Viewing Pool	04/04/2022 0925
	(SUB)Gas Fraction Hydrocarbons      TPH 8015 Diesel and Motor Oil	
<u>202204061402</u>	rush	04/04/2022 0925
	RU H	

**Test Description**



Eaton Analytical

# CHAIN OF CUSTODY RECORD

997259

EUROFINS EATON ANALYTICAL USE ONLY:

LOGIN COMMENTS: \_\_\_\_\_

SAMPLES CHECKED AGAINST COC BY: GR

SAMPLES LOGGED IN BY: SM

SAMPLE TEMP RECEIVED AT: \_\_\_\_\_ (check for yes)

Colton / No. California / Arizona      °C ( Compliance: 4 ± 2 °C )

Monrovia      3.7 °C ( Compliance: 4 ± 2 °C )

CONDITION OF BLUE ICE: Frozen \_\_\_\_\_ Thawed \_\_\_\_\_ Wet Ice \_\_\_\_\_ No Ice \_\_\_\_\_

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

750 Royal Oaks Drive, Suite 100  
 Monrovia, CA 91016-3629  
 Phone: 626 386 1100  
 Fax: 626 386 1101  
 800 566 LABS (800 566 5227)

TO BE COMPLETED BY SAMPLER: \_\_\_\_\_ (check for yes)

COMPANY/AGENCY NAME: BWS HONOLULU

PROJECT CODE: Red Hill

SAMPLE GROUP: \_\_\_\_\_

EEA CLIENT CODE: Honolulu

COC ID: \_\_\_\_\_

TAT requested: rush by adv notice only      STD \_\_\_ 1 wk \_\_\_ X \_\_\_ 3 day \_\_\_ 2 day \_\_\_ 1 day \_\_\_

COMPLIANCE SAMPLES  NON-COMPLIANCE SAMPLES  (check for yes)

- Requires state forms REGULATION INVOLVED: \_\_\_\_\_

Type of samples (circle one): ROUTINE  SPECIAL  CONFIRMATION (eg. SDWA, Phase V, NPDES, FDA,...)

SEE ATTACHED BOTTLE ORDER FOR ANALYSES \_\_\_\_\_ (check for yes), OR \_\_\_\_\_

list ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)

SAMPLE DATE	SAMPLE TIME	SAMPLE ID	CLIENT LAB ID	MATRIX	FIELD DATA	FIELD DATA	8015 Gas C	TPH 8015	8015 Gas C	SAMPLER COMMENTS
4-4-2022	0725	Halawa Shaft Viewing Pool		RGW			X	X		
		Travel Blank		CFW			X			NO TB RECOVERED - GR
		Temperature Blank								Temp Blank: 15.5 °C

\* MATRIX TYPES: RSW = Raw Surface Water      CFW = Chlor(am)inated Finished Water      SEAW = Sea Water      BW = Bottled Water      SO = Soil      O = Other - Please Identify

RGW = Raw Ground Water      FW = Other Finished Water      WW = Waste Water      SW = Storm Water      SL = Sludge

SAMPLED BY:	RELINQUISHED BY:	RECEIVED BY:	RECEIVED BY:	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
[Redacted]	Derek Dotson	[Redacted]	Derek Dotson	[Redacted]	Derek Dotson	Honolulu Board of Water Supply	4-4-2022	
		[Redacted]	Derek Dotson	[Redacted]	Derek Dotson	Honolulu Board of Water Supply	4-5-2022	1200
		[Redacted]	G. REINDE	[Redacted]	G. REINDE	FEA	04-06-2022	14:04



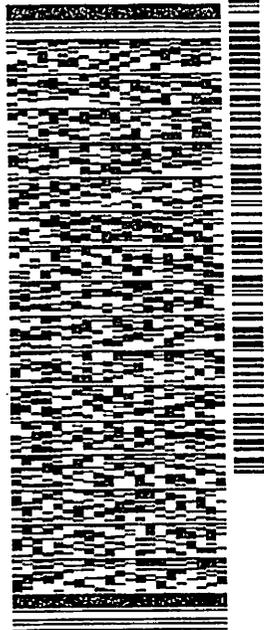
ORIGIN ID:HIKA (808) 748-5940  
 BWS CHEM LAB  
 HONOLULU BOARD OF WATER SUPPLY  
 630 S. BERETANIA ST  
 CHEMICAL LABORATORY  
 HONOLULU, HI 96843  
 UNITED STATES US

SHIP DATE: 05APR22  
 ACTWGT: 58.00 LB  
 CAD: 100205419/NET4460  
 BILL RECIPIENT

TO

EUROFINS EATON ANALYTICAL, INC  
 750 ROYAL OAKS DR  
 SUITE 100  
 MONROVIA CA 91016  
 REF: (629) 386-1178  
 INV: PO: DEPT:

56DJ2/BDF9/FE4A



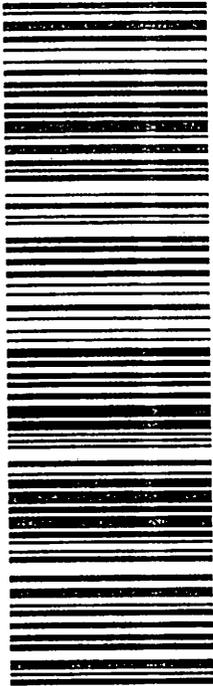
1 of 5

TRK# 7764 9990 6518  
 0201  
 ## MASTER ##

WED - 06 APR 10:30A  
 PRIORITY OVERNIGHT

WZ WHPA

CA-US  
 BUR  
 91016



After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

**Warning:** Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number. Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Tel: (626) 386-1100  
Fax: (866) 988-3757  
1 800 566 LABS (1 800 566 5227)

**Laboratory Comments**

**Report:** 997299  
**Project:** RED-HILL  
**Group:** Weekly TPH-8015\_RED-HILL (2022)  
- EMAX

Honolulu Board of Water Supply  
Erwin Kawata  
630 South Beretania Street  
Public Service Bldg." Room 308  
Honolulu, HI 96843

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**Folder Comments**

Analytical results for TPH Gas, Diesel, and Motor Oil are submitted by EMAX Laboratories, Inc., Torrance, CA

ND reporting (subcontract lab reports)

MDL is listed due to report format restrictions; it is not used in reporting. Analytical results reported as ND, are ND at the RL.

COC Deviation

Testing performed per updated weekly project specification.

Travel Blank was not received.



Eaton Analytical

Tel: (626) 386-1100  
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1 800 566 LABS (1 800 566 5227)

Laboratory Hits

Report: 997299  
Project: RED-HILL  
Group: Weekly TPH-8015\_RED-HILL (2022)  
- EMAX

**Honolulu Board of Water Supply**  
Erwin Kawata  
630 South Beretania Street  
Public Service Bldg." Room 308  
Honolulu, HI 96843

Samples Received on:  
04/06/2022 1404

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Analyzed	Analyte	Sample ID	Result	HI Limit	Units	MRL
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**SUMMARY OF POSITIVE DATA ONLY**

Tel: (626) 386-1100  
 Fax: (626) 988-3757  
 1 800 566 LABS (1 800 566 5227)

Laboratory Data

**Report:** 997299  
**Project:** RED-HILL  
**Group:** Weekly TPH-8015\_RED-HILL (2022)  
 - EMAX

**Honolulu Board of Water Supply**  
 Erwin Kawata  
 630 South Beretania Street  
 Public Service Bldg." Room 308  
 Honolulu, HI 96843

Samples Received on:  
 04/06/2022 1404

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
<b>Halawa Shaft Viewing Pool (202204061401)</b>						<b>Sampled on 04/04/2022 0925</b>			
<b>SW 8015B - (SUB)Gas Fraction Hydrocarbons</b>									
04/11/22	04/11/22 17:35			(SW 8015B)	(SUB)Gas Fraction Hydrocarbons	ND	mg/L	0.02	1
<b>SW 8015B - TPH 8015 Diesel and Motor Oil</b>									
04/11/22	04/12/22 14:53			(SW 8015B)	TPH Diesel	ND	mg/L	0.024	1
04/11/22	04/12/22 14:53			(SW 8015B)	TPH Motor Oil	ND	mg/L	0.048	1

Rounding on totals after summation.  
 (c) - indicates calculated results. Analysis is a calculated result. Reported results are not rounded until the final step before reporting. Therefore methods that use a test result with further calculation may have slight differences in final result than the component analyses.



LABORATORIES, INC.®

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

Date: 04-20-2022  
EMAX Batch No.: 22D085

Attn: Jackie Contreras

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

Subject: Laboratory Report  
Project: 997299

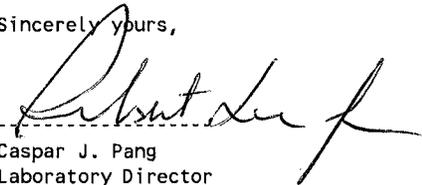
-----  
Enclosed is the Laboratory report for samples received on 04/08/22.  
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
202204061401	D085-01	04/04/22	WATER	TPH GASOLINE TPH DIESEL & MOTOR OIL

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  
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 CA002912021-19  
ANAB Accredited DoD ELAP and ISO/IEC 17025 Certificate Number L2278 Testing  
California ELAP Accredited Certificate Number 2672



Eaton Analytical

Ship To:  
EMAX Laboratories, Inc.  
3051 Fujita St.  
Torrance, CA 90505

Phone: 310-618-8889 Fax: 310-618-0818

Folder #: 997299 Report Due: 04/08/2022

Sample ID: 202204061401 Client Sample ID for reference onl  
Halawa Shaft Viewing Pool

Sample type: Sample Event: Sample ID: Static ID:

Method: SW 8015B EPA 5030C (SUB)Gas Fraction Hydrocarbons  
SW 8015B EPA 3550B TPH 8015 Diesel and Motor Oil

Analysis Requested

Date: 4/7/2022

Submittal Form

22D 085

\*REPORTING REQUIREMENTS: Do Not Combine Reports with any other samples submitted under different Folder Numbers!  
Report & Invoice must have the Folder # 997299 Job # 1000014

Report all quality control data according to Method. Include dates analyzed. Date extracted (if extracted) and Method reference on the report.  
Results must have Complete data & QC with Approval Signature.

Reports: Jackie Contreras Sub-Contracting Administrator  
EMAIL TO: Eaton-MonroviaSubContract@eurofinset.com  
Eurofins Eaton Analytical, LLC 750 Royal Oaks Drive, Suite 100, Monrovia, CA 91016  
Phone (626) 386-1165 Fax (626) 386-1122  
Invoices to: Eurofins Eaton Analytical, LLC  
Accounts Payable 2425 New Holland Pike, Lancaster, PA 17605

Provide in each Report the  
Specified State Certification # and  
Exp Date for requested tests + matrix.  
Samples from: HAWAII

4 or 3 containers per sample for MS/MSD batch QC. Low level RL reporting only

Relinquished by: ASB Sample Control G. REIMER Date 4/7/22 Time \_\_\_\_\_  
Received by: Jason Tapia Date 4/7/22 Time 14:39  
Relinquished by: Jason Tapia Sample Control Date 4/7/22 Time 16:22  
Received by: JR Date 04/08/22 Time 18:03

NOTIFICATION REQUIRED IF RECEIVED OUTSIDE OF 0-6 CELSIUS

An Acknowledgement of Receipt is requested to attn. Jackie Contreras

Temp: 04/4/3.9  
3.0/2.5

Type of Delivery <input type="checkbox"/> Fedex <input type="checkbox"/> UPS <input type="checkbox"/> GSO <input type="checkbox"/> Others <input checked="" type="checkbox"/> EMAX Courier <input checked="" type="checkbox"/> Client Delivery	Airbill / Tracking Number	ECN <u>22D085</u> Recipient <u>Tyler K.</u> Date <u>04/10/22</u> Time <u>18:03</u>
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**COC INSPECTION**

<input checked="" type="checkbox"/> Client Name	<input checked="" type="checkbox"/> Client PM/FC	<input type="checkbox"/> Sampler Name	<input checked="" type="checkbox"/> Sampling Date/Time	<input checked="" type="checkbox"/> Sample ID	<input checked="" type="checkbox"/> Matrix
<input checked="" type="checkbox"/> Address	<input checked="" type="checkbox"/> Tel # / Fax #	<input type="checkbox"/> Courier Signature	<input checked="" type="checkbox"/> Analysis Required	<input type="checkbox"/> Preservative (if any)	<input type="checkbox"/> TAT
Safety Issues (if any)	<input type="checkbox"/> High concentrations expected	<input type="checkbox"/> From Superfund Site	<input type="checkbox"/> Rad screening required		

Note: \_\_\_\_\_

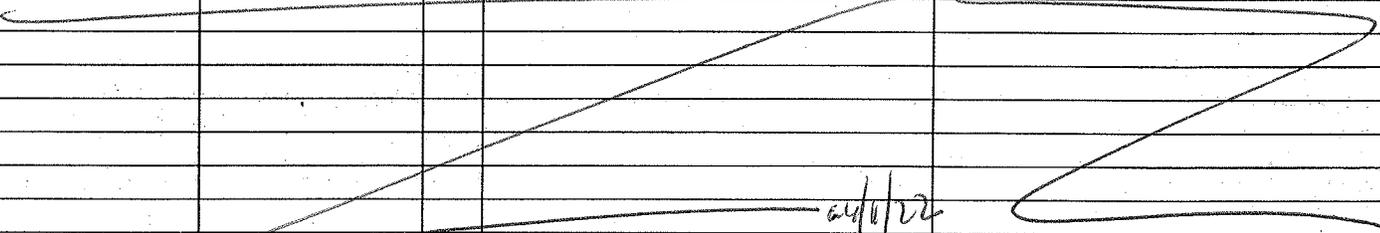
**PACKAGING INSPECTION**

Container	<input checked="" type="checkbox"/> Cooler	<input type="checkbox"/> Box	<input type="checkbox"/> Other
Condition	<input type="checkbox"/> Custody Seal	<input type="checkbox"/> Intact	<input type="checkbox"/> Damaged
Packaging	<input checked="" type="checkbox"/> Bubble Pack	<input type="checkbox"/> Styrofoam	<input type="checkbox"/> Popcorn
Temperatures (Cool, ≤6 °C but not frozen)	<input checked="" type="checkbox"/> Cooler 1 <u>4.4/39</u> °C	<input type="checkbox"/> Cooler 2 _____ °C	<input type="checkbox"/> Cooler 3 _____ °C
	<input type="checkbox"/> Cooler 6 _____ °C	<input type="checkbox"/> Cooler 7 _____ °C	<input type="checkbox"/> Cooler 8 _____ °C
Thermometer:	A - S/N <u>210533479</u>	B - S/N _____	C - S/N <u>210271399</u>
			D - S/N _____
			<input checked="" type="checkbox"/> Cooler 4 _____ °C
			<input checked="" type="checkbox"/> Cooler 5 <u>30/25</u> °C
			<input type="checkbox"/> Cooler 9 _____ °C
			<input type="checkbox"/> Cooler 10 _____ °C

Comments:  Temperature is out of range. PM was informed IMMEDIATELY.

Note: \_\_\_\_\_

**DISCREPANCIES**

LabSampleID	LabSampleContainerID	Code	ClientSample Label ID / Information	Corrective Action
1	1-9	D13	For 8015 Gas/Diesel	R8
1	4-9	D1	Jet Fuel 5 Analysis indicated on label, not on COC	R1
1	1-3	D10		R8
				

pH holding time requirement for water samples is 15 mins. Water samples for pH analysis are received beyond 15 minutes from sampling time.

**NOTES/OBSERVATIONS:**

SAMPLE MATRIX IS DRINKING WATER?  YES  NO

- LEGEND:**
- |   |   |  |
|---|---|--|
| <p><b>Code Description-Sample Management</b></p> <ul style="list-style-type: none"> <li><u>D1</u> Analysis is not indicated in <u>COC</u></li> <li>D2 Analysis mismatch COC vs label</li> <li>D3 Sample ID mismatch COC vs label</li> <li>D4 Sample ID is not indicated in _____</li> <li>D5 Container -[improper] [leaking] [broken]</li> <li>D6 Date/Time is not indicated in _____</li> <li>D7 Date/Time mismatch COC vs label</li> <li>D8 Sample listed in COC is not received</li> <li>D9 Sample received is not listed in COC</li> <li><u>D10</u> No initial/date on corrections in COC/label</li> <li>D11 Container count mismatch COC vs received</li> <li>D12 Container size mismatch COC vs received</li> </ul> | <p><b>Code Description-Sample Management</b></p> <ul style="list-style-type: none"> <li><u>D13</u> Out of Holding Time</li> <li>D14 Bubble is &gt;6mm</li> <li>D15 No trip blank in cooler</li> <li>D16 Preservation not indicated in _____</li> <li>D17 Preservation mismatch COC vs label</li> <li>D18 Insufficient chemical preservative</li> <li>D19 Insufficient Sample</li> <li>D20 No filtration info for dissolved analysis</li> <li>D21 No sample for moisture determination</li> <li>D22 _____</li> <li>D23 _____</li> <li>D24 _____</li> </ul> | <p><input type="checkbox"/> Continue to next page.</p> <p><b>Code Description-Sample Management</b></p> <ul style="list-style-type: none"> <li>R1 Proceed as indicated in <input checked="" type="checkbox"/> COC <input type="checkbox"/> Label</li> <li>R2 Refer to attached instruction</li> <li>R3 Cancel the analysis</li> <li>R4 Use vial with smallest bubble first</li> <li>R5 Log-in with latest sampling date and time+1 min</li> <li>R6 Adjust pH as necessary</li> <li>R7 Filter and preserved as necessary</li> <li>R8 <u>Informed Client</u></li> <li>R9 _____</li> <li>R10 _____</li> <li>R11 _____</li> <li>R12 _____</li> </ul> |
|---|---|--|

**REVIEWS:**

Sample Labeling <u>Maria Rivera</u>	<u>Jocelyne Solis-Ramirez</u>
Date <u>04/11/22</u>	<u>04/11/22</u>

SRF [Signature]  
Date 4/11/22

PM [Signature]  
Date 4/11/22

## 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

997299

METHOD 5030B/8015B  
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

SDG#: 22D085

## CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 997299

SDG : 22D085

### METHOD 5030B/8015B TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

One(1) water sample was received on 04/08/22 to be analyzed for Total Petroleum Hydrocarbons by Purge and Trap in accordance with Method 5030B/8015B 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. VG55D05B - 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. VG55D05L/VG55D05C were within LCS limits. Refer to LCS summary form for details.

#### Matrix QC Sample

Matrix spike sample was prepared and analyzed at a frequency required by the project. For this SDG, one(1) set of MS/MSD was analyzed. Gasoline was within MS QC limits in D084-01M/D084-01S. Refer to Matrix QC summary form for details.

#### Surrogate

Surrogate was added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms 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.

LAB CHRONICLE  
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

SDG NO. : 22D085  
Instrument ID : GCT055

Client : EUROFINS EATON ANALYTICAL  
Project : 997299

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis Date/Time	Extraction Date/Time	Sample Data FN	Calibration Prep. Data FN	Notes
202204061401	MBLK1W	1	NA	04/11/2213:10	04/11/2213:10	UD11006A	UD11004A	Method Blank
	LCS1W	1	NA	04/11/2213:48	04/11/2213:48	UD11007A	UD11004A	Lab Control Sample (LCS)
	LCD1W	1	NA	04/11/2214:25	04/11/2214:25	UD11008A	UD11004A	LCS Duplicate
	D085-01	1	NA	04/11/2217:35	04/11/2217:35	UD11013A	UD11004A	Field Sample

FN - Filename  
% Moist - Percent Moisture

# **SAMPLE RESULTS**



# QC SUMMARIES



EMAX QUALITY CONTROL DATA  
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL  
PROJECT : 997299  
BATCH NO. : 22D085  
METHOD : 5030B/8015B

```

=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : MBLK1W                             LCS1W           LCD1W
LAB SAMPLE ID : VG55D05B                         VG55D05L       VG55D05C
LAB FILE ID  : UD11006A                         UD11007A       UD11008A
DATE PREPARED : 04/11/22 13:10                 04/11/22 13:48 04/11/22 14:25
DATE ANALYZED : 04/11/22 13:10                 04/11/22 13:48 04/11/22 14:25
PREP BATCH   : 22VG55D05                       22VG55D05     22VG55D05
CALIBRATION REF: UD11004A                       UD11004A       UD11004A
  
```

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Gasoline	ND	0.500	0.487	97	0.500	0.501	100	3	60-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0470	118	0.0400	0.0474	119	70-130

MB: Method Blank sample LCS: Lab Control Sample LCD: Lab Control Sample Duplicate

EMAX QUALITY CONTROL DATA  
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL  
PROJECT : 997287  
BATCH NO. : 22D084  
METHOD : 5030B/8015B

```

=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : 202204061363                      202204061363MSD
LAB SAMPLE ID : D084-01                          D084-01S
LAB FILE ID  : UD11009A                          UD11010A
DATE PREPARED : 04/11/22 15:03                  04/11/22 15:41
DATE ANALYZED : 04/11/22 15:03                  04/11/22 16:19
PREP BATCH   : 22VG55D05                         22VG55D05
CALIBRATION REF: UD11004A                       UD11004A
  
```

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Gasoline	ND	0.500	0.462	92	0.500	0.463	93	0	50-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0456	114	0.0400	0.0459	115	60-140

PS: Parent Sample MS: Matrix Spike MSD: Matrix Spike Duplicate

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

997299

METHOD 3520C/8015B  
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 22D085

## CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 997299

SDG : 22D085

### METHOD 3520C/8015B TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 04/08/22 to be analyzed for Total Petroleum Hydrocarbons by Extraction in accordance with Method 3520C/8015B 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. DSD010WB - 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) LCS was analyzed. Percent recovery for Diesel was within LCS QC limits in DSD010WL. Refer to LCS summary form for details.

#### Matrix QC Sample

Matrix spike sample was prepared and analyzed at a frequency required by the project. One(1) set of MS/MSD was analyzed. Diesel was within MS QC limits in 22D084-01M/22D084-01S. Refer to Matrix QC summary form for details.

#### Surrogate

Surrogates were added on QC and field samples. All surrogate recoveries were within QC limits. Refer to sample result summary forms 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.



# **SAMPLE RESULTS**

METHOD 3520C/8015B  
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 04/04/22 09:25
Project     : 997299                     Date Received: 04/08/22
Batch No.   : 22D085                     Date Extracted: 04/11/22 11:15
Sample ID   : 202204061401              Date Analyzed: 04/12/22 14:53
Lab Samp ID : 22D085-01                  Dilution Factor: 1
Lab File ID : LD12013A                   Matrix: WATER
Ext Btch ID : 22DSD010W                  % Moisture: NA
Calib. Ref.: LD12004A                    Instrument ID: D5
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
Diesel	ND	0.024	0.012	
Motor Oil	ND	0.048	0.024	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.433	0.475	91	60-130
Hexacosane	0.115	0.119	96	60-130

Notes:

Parameter H-C Range  
Diesel C10-C24  
Motor Oil C24-C36

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 1050ml                      Final Volume : 5ml  
Prepared by : JMuert                              Analyzed by : SDeeso

# QC SUMMARIES

METHOD 3520C/8015B  
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 04/11/22 11:15
Project     : 997299                      Date Received: 04/11/22
Batch No.   : 22D085                      Date Extracted: 04/11/22 11:15
Sample ID   : MBLK1W                      Date Analyzed: 04/12/22 13:21
Lab Samp ID: DSD010WB                    Dilution Factor: 1
Lab File ID: LD12008A                    Matrix: WATER
Ext Btch ID: 22DSD010W                   % Moisture: NA
Calib. Ref.: LD12004A                    Instrument ID: D5
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
Diesel	ND	0.025	0.012	
Motor Oil	ND	0.050	0.025	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.396	0.500	79	60-130
Hexacosane	0.117	0.125	94	60-130

Notes:

Parameter      H-C Range  
Diesel            C10-C24  
Motor Oil        C24-C36

Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount    : 1000ml                      Final Volume : 5ml  
Prepared by       : JMuert                            Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA  
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL  
PROJECT : 997299  
BATCH NO. : 22D085  
METHOD : 3520C/8015B

=====

MATRIX	: WATER	% MOISTURE:NA
DILUTION FACTOR:	1	1
SAMPLE ID	: MBLK1W	LCS1W
LAB SAMPLE ID	: DSD010WB	DSD010WL
LAB FILE ID	: LD12008A	LD12009A
DATE PREPARED	: 04/11/22 11:15	04/11/22 11:15
DATE ANALYZED	: 04/12/22 13:21	04/12/22 13:40
PREP BATCH	: 22DSD010W	22DSD010W
CALIBRATION REF:	LD12004A	LD12004A

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
-----	-----	-----	-----	-----	-----
Diesel	ND	2.50	2.54	102	50-130

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	QCLimit (%)
-----	-----	-----	-----	-----
Bromobenzene	0.500	0.433	87	60-130
Hexacosane	0.125	0.132	106	60-130

=====

MB: Method Blank sample    LCS: Lab Control Sample

EMAX QUALITY CONTROL DATA  
MS/MSD ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL  
PROJECT : 997287  
BATCH NO. : 22D084  
METHOD : 3520C/8015B

```

=====
MATRIX      : WATER                                % MOISTURE:NA
DILUTION FACTOR: 1                                1
SAMPLE ID   : 202204061363                        202204061363MSD
LAB SAMPLE ID : 22D084-01                          22D084-01S
LAB FILE ID  : LD13027A                            LD12012A
DATE PREPARED : 04/11/22 11:15                    04/11/22 11:15
DATE ANALYZED : 04/13/22 20:30                    04/12/22 14:35
PREP BATCH   : 22DSD010W                          22DSD010W
CALIBRATION REF: LD13017A                          LD12004A
    
```

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Diesel	ND	2.58	2.60	101	2.60	2.78	107	7	50-130	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.515	0.393	76	0.520	0.422	81	60-130
Hexacosane	0.129	0.139	108	0.130	0.149	115	60-130

PS: Parent Sample MS: Matrix Spike MSD: Matrix Spike Duplicate