

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

Date of Issue
04/06/2022

Rinda Seddas
EUROFINS EATON
ANALYTICAL, LLC



Utah ELCP CA00006

DEB: Debbie L Frank
Project Manager

Report: 993239
Project: RED-HILL
Group: TPH-8015_RED-HILL (2022) Weekly

* 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 Pseudalart	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 #: 993239
 Project: RED-HILL
 Sample Group: TPH-8015_RED-HILL (2022) Weekly

Project Manager: Debbie L Frank
 Phone: (626) 386-1149
 PO #: C20525101 exp 05312023

The following samples were received from you on **March 16, 2022 at 1239**. 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>202203160765</u>	HALAWA SHAFT-331-241-TP401	03/14/2022 0935
	(SUB)Gas Fraction Hydrocarbons TPH 8015 Diesel and Motor Oil	
<u>202203160766</u>	TB:HALAWA SHAFT-331-241-TP401	03/14/2022 0935
	(SUB)Gas Fraction Hydrocarbons	

Test Description

CHAIN OF CUSTODY RECORD

EUROFINS EATON ANALYTICAL USE ONLY:

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

LOGIN COMMENTS: _____

SAMPLES CHECKED AGAINST COC BY: MS

SAMPLES LOGGED IN BY: MS

SAMPLES REC'D DAY OF COLLECTION? (check for yes)

SAMPLE TEMP RECEIVED AT: _____ °C (Compliance: 4 ± 2 °C)

Colton / No. California / Arizona

Monrovia

CONDITION OF BLUE ICE: Frozen _____ Thawed _____ Wet Ice _____ No Ice _____

Partially Frozen

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

TO BE COMPLETED BY SAMPLER:

COMPANY/AGENCY NAME: BWS HONOLULU

PROJECT CODE: Red Hill

COMPLIANCE SAMPLES **NON-COMPLIANCE SAMPLES** (check for yes)

- Requires state forms **REGULATION INVOLVED:** _____

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

EEA CLIENT CODE: Honolulu

COC ID: _____

SAMPLE GROUP: _____

SEE ATTACHED BOTTLE ORDER FOR ANALYSES (check for yes) **OR** (check for yes)

TAT requested: rush by adv notice only STD ___ 1 wk ___ 3 day ___ 2 day ___ 1 day ___

SAMPLE DATE	SAMPLE TIME	SAMPLE ID	CLIENT LAB ID	MATRIX	FIELD DATA	FIELD DATA	SAMPLER COMMENTS
3-14-22	0835	HALAWA SHAFT	HI0000331-241	CFW			
		Travel Blank		CFW			
		Temperature Blank					
							Temp Blank: 16.0 °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

SIGNED BY:	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
	[Redacted]	Derek Dotson	Honolulu Board of Water Supply	3-14-2022	
RELINQUISHED BY:		Derek Dotson	Honolulu Board of Water Supply	3-15-2022	1200
RECEIVED BY:		<u>Chris Brecher</u>	HDA	3-16-22	1239
RELINQUISHED BY:					
RECEIVED BY:					



Eaton Analytical

INTERNAL CHAIN OF CUSTODY RECORD

EEA Folder Number: 401

SAMPLE TEMP RECEIVED:

Note: 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 = 4.0 °C) (Corr. Factor = -0.2 °C) (Final = 3.8 °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 (1613 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: _____

VOA and Radon Headspace:	No Samples with Headspace:	Samples with Headspace (see below):
Exempt from headspace concerns: Methods 515.4, HAA(6251,552), 505, SPME,@CH, 532LCMS, 556, 536, Anatoxin, LCMS methods using 40 ml vials, International clients: None/<6 mm	Headspace Documentation (use additional VOC and Radon Internal COFC for additional bottles)	International clients: None/<6 mm
Samp ID Bottle # >6mm Test	Samp ID Bottle # >6mm Test	Samp ID Bottle # >6mm Test
mm	mm	mm

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

SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
<u>Chris Bruehr</u>	Chris Bruehr	Eurofins Eaton Analytical	3.16.22	1239
SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
		Eurofins Eaton Analytical		

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

SHIP DATE: 15MAR22
ACTWGT: 64.00 LB
CAD: 100205419/NET4460

BILL RECIPIENT

TO C CHUCK

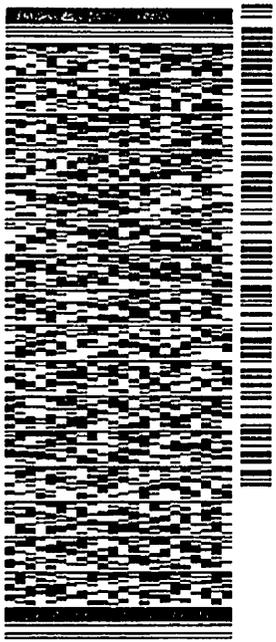
EUROFINS EATON ANALYTICAL, INC
750 ROYAL OAKS DR
SUITE 100

MONROVIA CA 91016

(626) 386-1178 REF
INV

DEPT

PO



J221022010501uv

56DJ5/EB02#FE4A

WED - 16 MAR 10:30A

PRIORITY OVERNIGHT

3 of 3

MPS# 7763 0422 8370
0263

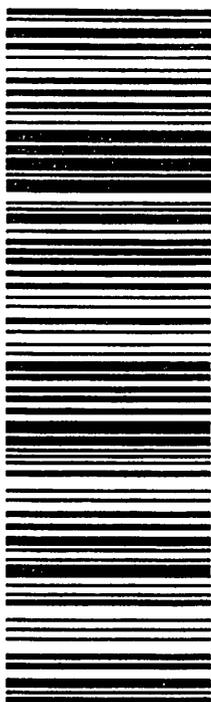
Mstr# 7763 0422 8186

0201

WZ WHPA

CA-US

91016
BUR



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 ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Debbie L Frank is your Eurofins Eaton Analytical, LLC Service Manager

750 Royal Oaks Drive, Suite 100
 Monrovia, California 91016-3629
 (626) 386-1100 FAX (866) 988-3757

Created Date & Time: 1/3/2022 12:06:33AM

Note: Sampler Please return this paper with your samples

Kit #: 309377

Client ID: HONOLULU

Created By: - [AutoGenerated]
 Deliver By: 02/02/2022
 STG: Bottle Orders
 Ice Type: G
 Pre Registered

Project Code: RED-HILL Bottle Orders
 Group Name: Red-Hill Expanded List (Albuquerque+)
 PO#/JOB#: C20525101 exp 05312023
 Description: AIEA WELLS PUMPS 1&2 (260) - 1

Ship Sample Kits to
 Honolulu Board of Water Supply
 630 South Beretania Street
 Chemistry Lab
 Honolulu, HI 96843
 Attn: Ron Fenslemacher
 Phone: 808-748-5841
 Fax: 808-550-5572

Send Report to
 Honolulu Board of Water Supply
 630 South Beretania Street
 Public Service Bldg., Room 308
 Honolulu, HI 96843
 Attn: Erwin Kawata
 Phone: 808-748-5091
 Fax: 808-550-5018

Billing Address
 Honolulu Board of Water Supply
 630 South Beretania Street
 Public Service Bldg., Room 308
 Honolulu, HI 96843
 Attn: Erwin Kawata
 Phone: 808-748-5091
 Fax: 808-550-5018

# of	Sample Tests	Bottle Qty - Type [preservative information]	Total	UN DOT #
1	TPH 8015 Diesel and Motor Oil_C, TPH 8015 Jet Fuel 5_C, TPH 8015 Jet Fuel 6_C	6 - 1L amber glass [1 ml Thio 8%]	6	
1	8015 Gas_C	3 - 40ml amber glass vial [1 drop Thio (8%)]	3	
1	@504MOD TB C, 8015 Gas_C TB	2 - 40ml amber glass vial [1 drop Thio (8%) + H2O]	2	
Sum Tests: 3			Sum Bottles: 11	

Comments

AIEA WELLS PUMPS 1&2 (260) (204-209-TP100)

SAMPLER:
 Four 1 LITER AMBER GLASS BOTTLES FOR 625 SERIES AND Six 1 LITER AMBER GLASS BOTTLES FOR TPH 8015 SERIES.

SHIPPING:
 Travel Blanks - TBA/MTBE, VOASDWA - Prepare TBs in the VOA LAB.
 Label Cooler on TOP and right below both Handles with Site description of contents (use extra Container Labels)

ASM: Be sure to coordinate Follow-up as needed for any new detections in Field samples.
 Acetone - follow-ups need to use EPA 624

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

Laboratory Comments

Report: 993239
Project: RED-HILL
Group: TPH-8015_RED-HILL (2022) Weekly

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

Folder Comments

Results for Gasoline, Diesel and Motor Oil are submitted by Emax Laboratories



Eaton Analytical

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

Laboratory Hits

Report: 993239
Project: RED-HILL
Group: TPH-8015_RED-HILL (2022) Weekly

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

Samples Received on:
03/16/2022 1239

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: 993239
 Project: RED-HILL
 Group: TPH-8015_RED-HILL (2022) Weekly

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

Samples Received on:
 03/16/2022 1239

Prepped	Analyzed	Prep Batch	Analytical Batch	Method	Analyte	Result	Units	MRL	Dilution
<u>HALAWA SHAFT-331-241-TP401 (202203160765)</u>						Sampled on 03/14/2022 0935			
SW 8015B - (SUB)Gas Fraction Hydrocarbons									
03/19/22	03/19/22 01:51			(SW 8015B)	(SUB)Gas Fraction Hydrocarbons	ND	mg/L	0.02	1
SW 8015B - TPH 8015 Diesel and Motor Oil									
03/21/22	03/22/22 20:56			(SW 8015B)	TPH Diesel	ND	mg/L	0.025	1
03/21/22	03/22/22 20:56			(SW 8015B)	TPH Motor Oil	ND	mg/L	0.051	1
<u>TB:HALAWA SHAFT-331-241-TP401 (202203160766)</u>						Sampled on 03/14/2022 0935			
SW 8015B - (SUB)Gas Fraction Hydrocarbons									
03/19/22	03/19/22 02:25			(SW 8015B)	(SUB)Gas Fraction Hydrocarbons	ND	mg/L	0.02	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.



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

Date: 03-28-2022
EMAX Batch No.: 22C222

Attn: Jackie Contreras

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

Subject: Laboratory Report
Project: 993239

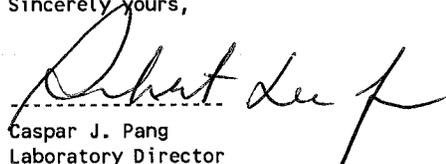
Enclosed is the Laboratory report for samples received on 03/18/22.
The data reported relate only to samples listed below :

Sample ID	Control #	Col Date	Matrix	Analysis
202203160765	C222-01	03/14/22	WATER	TPH GASOLINE TPH DIESEL & MOTOR OIL
202203160766	C222-02	03/14/22	WATER	TPH GASOLINE

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 #: 993239 Report Due: 03/23/2022

Sample ID: 202203160765 Client Sample ID for reference onl
HALAWA SHAFT-331-241-TP401

Sample type: SW 8015B Method: EPA 5030C

Prep Method: EPA 3550B Analysis Requested: (SUB)Gas Fraction Hydrocarbons
TPH 8015 Diesel and Motor Oil

Sample ID: 202203160766 Client Sample ID for reference onl
TB:HALAWA SHAFT-331-241-TP401

Sample type: SW 8015B Method: EPA 5030C

Prep Method: EPA 3550B Analysis Requested: (SUB)Gas Fraction Hydrocarbons

22C222

Submittal Form

Date: 3/18/2022

*REPORTING REQUIREMENTS: Do Not Combine Reports with any other samples submitted under different Folder Numbers!
Report & Invoice must have the Folder # 993239 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

2-3 day rush

Sample Date & Time Matrix: 03/14/22 0935 DW PWSID: JLS

Static ID:

Sample Date & Time Matrix: 03/14/22 0935 DW PWSID: JLS

Static ID:

Relinquished by: *[Signature]* Sample Control Date: 3/18/22 Time: 1:26
Received by: *[Signature]* Sample Control Date: 3/18/22 Time: 1:26
Relinquished by: Sample Control Date: Time:
Received by: Sample Control Date: Time:

NOTIFICATION REQUIRED IF RECEIVED OUTSIDE OF 0-6 CELSIUS
An Acknowledgement of Receipt is requested to attn: Jackie Contreras
Temp: ① 5.2°/4.7° ② 2.3°/1.8°
CF: 0.5

Type of Delivery	Airbill / Tracking Number	ECN <u>22C222</u>
<input type="checkbox"/> Fedex <input type="checkbox"/> UPS <input type="checkbox"/> GSO <input type="checkbox"/> Others		Recipient <u>Alan Ramus</u>
<input type="checkbox"/> EMAX Courier <input checked="" type="checkbox"/> Client Delivery		Date <u>03/10/22</u> Time <u>11:26</u>

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 checked="" 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 <u>Correction factor - 0.5</u>	<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>5.2/4.7 °C</u>	<input checked="" type="checkbox"/> Cooler 2 <u>2.3/1.0 °C</u>	<input type="checkbox"/> Cooler 3 _____ °C
Thermometer: <u>A - S/N _____</u>	<input type="checkbox"/> Cooler 6 _____ °C	<input type="checkbox"/> Cooler 7 _____ °C	<input type="checkbox"/> Cooler 8 _____ °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	4-9	D2	Jet Fuel 5 is also on label	NS
2	10,11	D7	two dates on label: 03/14/22 and 2/2/22	NS

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 Sample #1 has extra bottles for 8015, no indication for MS/SD

LEGEND:

<p>Code Description- Sample Management</p> <p>D1 Analysis is not indicated in _____</p> <p><u>D2</u> Analysis mismatch COC vs label</p> <p>D3 Sample ID mismatch COC vs label</p> <p>D4 Sample ID is not indicated in _____</p> <p>D5 Container -[improper] [leaking] [broken]</p> <p>D6 Date/Time is not indicated in _____</p> <p><u>D7</u> Date/Time mismatch COC vs label</p> <p>D8 Sample listed in COC is not received</p> <p>D9 Sample received is not listed in COC</p> <p>D10 No initial/date on corrections in COC/label</p> <p>D11 Container count mismatch COC vs received</p> <p>D12 Container size mismatch COC vs received</p>	<p>Code Description-Sample Management</p> <p>D13 Out of Holding Time</p> <p>D14 Bubble is >6mm</p> <p>D15 No trip blank in cooler</p> <p>D16 Preservation not indicated in _____</p> <p>D17 Preservation mismatch COC vs label</p> <p>D18 Insufficient chemical preservative</p> <p>D19 Insufficient Sample</p> <p>D20 No filtration info for dissolved analysis</p> <p>D21 No sample for moisture determination</p> <p>D22 _____</p> <p>D23 _____</p> <p>D24 _____</p>	<p><input type="checkbox"/> Continue to next page.</p> <p>Code Description-Sample Management</p> <p>R1 Proceed as indicated in <input type="checkbox"/> COC <input type="checkbox"/> Label</p> <p>R2 Refer to attached instruction</p> <p>R3 Cancel the analysis</p> <p>R4 Use vial with smallest bubble first</p> <p>R5 Log-in with latest sampling date and time+1 min</p> <p>R6 Adjust pH as necessary</p> <p>R7 Filter and preservative as necessary</p> <p>R8 <u>Informed Client</u></p> <p>R9 _____</p> <p>R10 _____</p> <p>R11 _____</p> <p>R12 _____</p>
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REVIEWS:

Sample Labeling <u>Jocelyn Ramus</u>	SRF <u>Alcira</u>	PM <u>NS</u>
Date <u>03/10/22</u>	Date <u>3/18/22</u>	Date <u>3/18/22</u>

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

993239

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

SDG#: 22C222

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 993239

SDG : 22C222

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

A total of two(2) water samples were received on 03/18/22 to be analyzed for Total Petroleum Hydrocarbons by Purge and Trap in accordance with Method 5030B/8015B and project specific requirements.

Holding Time

Samples were 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. VGH7C06B - 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. VGH7C06L/VGH7C06C 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 C219-01M/C219-01S. 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

Samples were 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 5030B/8015B
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 03/14/22 09:35
Project     : 993239                     Date Received: 03/18/22
Batch No.   : 22C222                     Date Extracted: 03/19/22 02:25
Sample ID   : 202203160766              Date Analyzed: 03/19/22 02:25
Lab Samp ID: C222-02                     Dilution Factor: 1
Lab File ID: AC18028A                    Matrix: WATER
Ext Btch ID: 22VGH7C06                   % Moisture: NA
Calib. Ref.: AC18016A                    Instrument ID: H7
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
GASOLINE	ND	0.020	0.010

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0398	0.0400	99	60-140

Notes:

Parameter H-C Range
Gasoline C6-C10
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.

Sample Amount : 5ml Final Volume : 5ml
Prepared by : SCerva Analyzed by : SCerva

QC SUMMARIES

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

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 03/18/22 20:07
Project     : 993239                     Date Received: 03/18/22
Batch No.   : 22C222                     Date Extracted: 03/18/22 20:07
Sample ID   : MBLK1W                     Date Analyzed: 03/18/22 20:07
Lab Samp ID: VGH7C06B                    Dilution Factor: 1
Lab File ID: AC18017A                    Matrix: WATER
Ext Btch ID: 22VGH7C06                   % Moisture: NA
Calib. Ref.: AC18016A                    Instrument ID: H7
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)	
GASOLINE	ND	0.020	0.010	
SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromofluorobenzene	0.0398	0.0400	100	60-140

Notes:

Parameter H-C Range
Gasoline C6-C10
Reported ND at RL quantitated per pattern recognition.

Detection limits are reported relative to sample result significant figures.
Sample Amount : 5ml Final Volume : 5ml
Prepared by : SCerva Analyzed by : SCerva

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 993239
BATCH NO. : 22C222
METHOD : 5030B/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR:	1	1	1
SAMPLE ID	: MBLK1W	LCS1W	LCD1W
LAB SAMPLE ID	: VGH7C06B	VGH7C06L	VGH7C06C
LAB FILE ID	: AC18017A	AC18018A	AC18019A
DATE PREPARED	: 03/18/22 20:07	03/18/22 20:41	03/18/22 21:16
DATE ANALYZED	: 03/18/22 20:07	03/18/22 20:41	03/18/22 21:16
PREP BATCH	: 22VGH7C06	22VGH7C06	22VGH7C06
CALIBRATION REF:	AC18016A	AC18016A	AC18016A

ACCESSION:

PARAMETERS	MRResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Gasoline	ND	0.500	0.525	105	0.500	0.511	102	3	60-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0478	120	0.0400	0.0472	118	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 : 993222
BATCH NO. : 22C219
METHOD : 5030B/8015B

MATRIX	: WATER		% MOISTURE:NA
DILUTION FACTOR:	1	1	1
SAMPLE ID	: 202203160673	202203160673MS	202203160673MSD
LAB SAMPLE ID	: C219-01	C219-01M	C219-01S
LAB FILE ID	: AC18020A	AC18021A	AC18022A
DATE PREPARED	: 03/18/22 21:50	03/18/22 22:24	03/18/22 22:59
DATE ANALYZED	: 03/18/22 21:50	03/18/22 22:24	03/18/22 22:59
PREP BATCH	: 22VGH7C06	22VGH7C06	22VGH7C06
CALIBRATION REF:	AC18016A	AC18016A	AC18016A

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	0.503	101	0.500	0.520	104	3	50-130	30

SURROGATE PARAMETER	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromofluorobenzene	0.0400	0.0470	118	0.0400	0.0478	120	60-140

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

LABORATORY REPORT FOR

EUROFINS EATON ANALYTICAL

993239

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 22C222

CASE NARRATIVE

Client : EUROFINS EATON ANALYTICAL

Project: 993239

SDG : 22C222

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

One(1) water sample was received on 03/18/22 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. DSC029WB - 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. DSC029WL/DSC029WC 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. One(1) set of MS/MSD was analyzed. Diesel was within MS QC limits in 22C219-01M/22C219-01S. 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: 03/14/22 09:35
Project     : 993239                     Date Received: 03/18/22
Batch No.   : 22C222                     Date Extracted: 03/21/22 10:15
Sample ID   : 202203160765              Date Analyzed: 03/22/22 20:56
Lab Samp ID : 22C222-01                 Dilution Factor: 1
Lab File ID : LC21108A                  Matrix: WATER
Ext Btch ID : 22DSC029W                 % Moisture: NA
Calib. Ref. : LC21098A                  Instrument ID: D5
=====

```

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Diesel	ND	0.025	0.013
Motor Oil	ND	0.051	0.025

SURROGATE PARAMETERS	RESULT	SPK_AMT	%RECOVERY	QC LIMIT
Bromobenzene	0.460	0.510	90	60-130
Hexacosane	0.145	0.127	114	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 : 980ml Final Volume : 5ml
Prepared by : P0reto Analyzed by : SDeeso

QC SUMMARIES

METHOD 3520C/8015B
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

```

=====
Client      : EUROFINS EATON ANALYTICAL   Date Collected: 03/21/22 10:15
Project     : 993239                     Date Received: 03/21/22
Batch No.   : 22C222                     Date Extracted: 03/21/22 10:15
Sample ID   : MBLK1W                     Date Analyzed: 03/22/22 18:29
Lab Samp ID: DSC029WB                   Dilution Factor: 1
Lab File ID: LC21100A                   Matrix: WATER
Ext Btch ID: 22DSC029W                 % Moisture: NA
Calib. Ref.: LC21098A                   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	0.403	0.500	81	60-130
Hexacosane	0.137	0.125	109	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 : P0reto Analyzed by : SDeeso

EMAX QUALITY CONTROL DATA
LAB CONTROL SAMPLE ANALYSIS

CLIENT : EUROFINS EATON ANALYTICAL
PROJECT : 993239
BATCH NO. : 22C222
METHOD : 3520C/8015B

```
=====
MATRIX      : WATER                               % MOISTURE:NA
DILUTION FACTOR: 1                               1
SAMPLE ID   : MBLK1W                             LCS1W         LCD1W
LAB SAMPLE ID : DSC029WB                         DSC029WL      DSC029WC
LAB FILE ID  : LC21100A                          LC21101A      LC21102A
DATE PREPARED : 03/21/22 10:15                   03/21/22 10:15 03/21/22 10:15
DATE ANALYZED : 03/22/22 18:29                   03/22/22 18:47 03/22/22 19:05
PREP BATCH   : 22DSC029W                         22DSC029W     22DSC029W
CALIBRATION REF: LC21098A                        LC21098A      LC21098A
```

ACCESSION:

PARAMETERS	MBResult (mg/L)	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Diesel	ND	2.50	2.48	99	2.50	2.41	96	3	50-130	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	LCSResult (mg/L)	LCSRec (%)	SpikeAmt (mg/L)	LCDResult (mg/L)	LCDRec (%)	QCLimit (%)
Bromobenzene	0.500	0.450	90	0.500	0.421	84	60-130
Hexacosane	0.125	0.143	114	0.125	0.146	117	60-130

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 : 993222
BATCH NO. : 22C219
METHOD : 3520C/8015B

MATRIX : WATER		% MOISTURE:NA
DILUTION FACTOR: 1	1	1
SAMPLE ID : 202203160673	202203160673MS	202203160673MSD
LAB SAMPLE ID : 22C219-01	22C219-01M	22C219-01S
LAB FILE ID : LC21103A	LC21104A	LC21105A
DATE PREPARED : 03/21/22 10:15	03/21/22 10:15	03/21/22 10:15
DATE ANALYZED : 03/22/22 19:24	03/22/22 19:42	03/22/22 20:00
PREP BATCH : 22DSC029W	22DSC029W	22DSC029W
CALIBRATION REF: LC21098A	LC21098A	LC21098A

ACCESSION:

PARAMETERS	PSResult (mg/L)	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	RPD (%)	QCLimit (%)	MaxRPD (%)
Diesel	ND	2.78	3.04	110	2.65	2.77	105	9	50-130	30

SURROGATE PARAMETERS	SpikeAmt (mg/L)	MSResult (mg/L)	MSRec (%)	SpikeAmt (mg/L)	MSDResult (mg/L)	MSDRec (%)	QCLimit (%)
Bromobenzene	0.555	0.539	97	0.530	0.498	94	60-130
Hexacosane	0.139	0.159	115	0.132	0.138	104	60-130

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