



CRL Environmental Corporation

28 March 2023

DENR Region 4 - B (MIMAROPA)

5th Floor, DENR By the Bay Bldg., 1515, Roxas Blvd., Ermita, Manila

ATTN: **Dir. Lormelyn E. Claudio**

Project Name: MT. PRINCESS EMPRESS OIL SPILL

Lab. No.: P00136796-01

Enclosed are the results and QC Data for sample received by CRL Environmental Corporation which was subcontracted to ASSET Laboratories, Inc., for testing of the requested parameters in the enclosed chain of custody.

The above Lab. No. has a corresponding Lab. ID PH004876-001A by ASSET Laboratories, Inc., CFZ, Pampanga.

Please note that any unused portion of the sample/s will be discarded 15 days after the date of this report, unless you have requested otherwise.

Thank you for the opportunity to service the needs of your company. Please feel free to call us at (045) 599-3943 or (02) 552-5100 if we can be of further service to you.

Very truly yours,

MARIA CARMELA Q. CAPULE, Ph.D.

Chief Operating Officer



Analytical Support Services for
Environmental Technologies, Inc.
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Building 02-A, Berthaphil I Compound, Jose Abad Santos Ave.,
Clark Special Economic Zone, Clarkfield, Pampanga
PH: (+6345) 499-3038 USA: +1 (702) 347-7996
www.ph.assetlaboratories.com

Date: 27-Mar-23

CLIENT: CRLEN01
Project: P00136796
Lab Order: PH004876

CASE NARRATIVE

SAMPLE RECEIPT: Sample was received intact with proper chain of custody documentation.

HOLDING TIMES: Sample was received within holding time.

PRESERVATION: Sample requiring preservation was verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria except as noted in the report with data qualifiers.

Analytical Comment for EPA 8015C TPH_S: Batch 5482

%REC of n-octacosane in PH004876-001 exceeded acceptance criteria. Possibly due to matrix interference.

%REC of KRO and DRO in LCSD did not meet acceptance criteria. The associated Laboratory Control Sample (LCS) was acceptable.

COMMENTS: Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

DEFINITION OF TERMS:

PQL - Practical Quantitation Limit
DF - Dilution Factor
NR - Not Reported
SPK - Spike Amount
%RPD - Relative Percent Difference
%REC - Percent Recovery
MBLK - Method Blank
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MSD - Matrix Spike Duplicate
C10-C14 - Kerosene Range Organics
C15-C28 - Diesel Range Organics
C29-C36 - Oil/Residual Range Organics



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Date: 27-Mar-23

CLIENT: CRL Environmental Corporation

Project: P00136796

Lab Order: PH004876

Contract No:

WORK ORDER SAMPLE SUMMARY

Lab Sample ID	Client Samp ID	Matrix	Collection Date	Date Received	Date Reported
PH004876-001	P00136796-01	Other Solid	03/10/2023 10:40AM	03/15/2023 4:40PM	03/27/2023 3:42PM
PH004876-002	TPH-MB	Other Solid	03/14/2023 12:00AM	03/15/2023 4:40PM	03/27/2023 3:42PM
PH004876-003	MO-KERO QCS1	Other Solid	03/14/2023 12:00AM	03/15/2023 4:40PM	03/27/2023 3:42PM
PH004876-004	MO-KERO QCS2	Other Solid	03/14/2023 12:00AM	03/15/2023 4:40PM	03/27/2023 3:42PM
PH004876-005	DRO QCS1	Other Solid	03/14/2023 12:00AM	03/15/2023 4:40PM	03/27/2023 3:42PM
PH004876-006	DRO QCS2	Other Solid	03/14/2023 12:00AM	03/15/2023 4:40PM	03/27/2023 3:42PM



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ANALYTICAL SAMPLE RESULTS

Print Date: 27-Mar-23

CLIENT: CRL Environmental Corporation
Lab. Order: PH004876
Project: P00136796
Lab ID: PH004876-001A

Client Sample ID: P00136796-01
Collection Date: 3/10/2023 10:40AM
Matrix: Other Solid

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
NONHALOGENATED ORGANICS BY GAS CHROMATOGRAPHY			TestNo: EPA 8015C TPH			Prep-TestNo: EPA 3550C	
RunID: GC01_230317B	QC Batch: 05482		PrepDate: 03/14/2023			Analyst: ASSB	
C10 - C14	530	0	280		mg/Kg	10	3/17/2023 06:08 PM
C15 - C28	4300	0	280		mg/Kg	10	3/17/2023 06:08 PM
C29 - C36	5500	0	280		mg/Kg	10	3/17/2023 06:08 PM
Surr: n-Octacosane	244		50-150	S	%REC	10	3/17/2023 06:08 PM
Surr: p-Terphenyl	97.0		50-150		%REC	10	3/17/2023 06:08 PM

Qualifiers:

B Analyte detected in the associated Method Blank
E Value above quantitation range
H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit
S Spike/Surrogate outside of limits due to matrix interference
Results are wet unless otherwise specified
DO Surrogate Diluted Out

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Date: 27-Mar-23

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015TPH_S

CLIENT: CRL Environmental Corporation

Work Order: PH004876

Project: P00136796

SampleID: PH004876-002A	MBLK	MBLK	TestCode: 8015TPH_S	Units: mg/Kg	PrepDate: 3/14/2023						
Client ID: MBLK	Batch ID: 05482	05482	TestNo: EPA 8015C TPH	Prep-TestNo: EPA 3550C	Analysis Date: 3/17/2023						
Analyte	Result	PQL	SPK value	SPK RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C10 - C14	0	25									J
C15 - C28	0	25									J
C29 - C36	0	25									J

SampleID: PH004876-003A	SampType: LCS	TestCode: 8015TPH_S	Units: mg/Kg	PrepDate: 3/14/2023							
Client ID: LCS	Batch ID: 05482	TestNo: EPA 8015C TPH	Prep-TestNo: EPA 3550C	Analysis Date: 3/17/2023							
Analyte	Result	PQL	SPK value	SPK RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C10 - C14	39	25	49.88	0	78.3	70	130				
C29 - C36	64	25	49.88	0	128	70	130				
Surr:n-Octacosane	7.48		7.980		93.7	50	150				
Surr:p-Terphenyl	7.57		7.980		94.9	50	150				

Qualifiers: B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
S Spike/Surrogate outside of limits due to matrix interference

E Value above quantitation range
J Analyte detected below quantitation limits
R RPD outside accepted recovery limits
Results are wet unless otherwise specified

PH004876_FINAL_230327 1542H



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Date: 27-Mar-23

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015TPH_S

CLIENT: CRL Environmental Corporation

Work Order: PH004876

Project: P00136796

Sample ID:	PH004876-005A	Batch ID:	05482	TestCode:	8015TPH_S	TestNo:	EPA 8015C TPH	Prep-TestNo:	EPA 3550C	Units:	mg/Kg	PrepDate:	3/14/2023
Client ID:	LCS											Analysis Date:	3/17/2023
Analyte	Result	PQL	SPK value	SPK RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual		
C15 - C28	63	25	49.87	0	125	70	130						
Surr:n-Octacosane	7.12		7.980		89.2	50	150						
Surr:p-Terphenyl	7.25		7.980		90.8	50	150						

Sample ID:	PH004876-004A	Batch ID:	05482	TestCode:	8015TPH_S	TestNo:	EPA 8015C TPH	Prep-TestNo:	EPA 3550C	Units:	mg/Kg	PrepDate:	3/14/2023
Client ID:	LCS											Analysis Date:	3/17/2023
Analyte	Result	PQL	SPK value	SPK RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual		
C10 - C14	35	25	49.87	0	69.3	70	130	39.03	12.2	20	S		
C29 - C36	61	25	49.87	0	123	70	130	63.90	4.46	20			
Surr:n-Octacosane	7.24		7.979		90.7	50	150						
Surr:p-Terphenyl	7.37		7.979		92.3	50	150						

Qualifiers:	B	H	ND	S	E	J	R
Analyte detected in the associated Method Blank							
Holding times for preparation or analysis exceeded							
Not Detected at the Reporting Limit							
Spike/Surrogate outside of limits due to matrix interference							
Value above quantitation range							
Analyte detected below quantitation limits							
RPD outside accepted recovery limits							
Results are wet unless otherwise specified							



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Date: 27-Mar-23

CLIENT: CRL Environmental Corporation

Work Order: PH004876

Project: P00136796

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015TPH_S

SampleID: PH004876-006A	SampleType: LCSD	TestCode: 8015TPH_S	Units: mg/Kg	PrepDate: 3/14/2023							
Client ID: LCSD	Batch ID: 05482	TestNo: EPA 8015C TPH	Prep-TestNo: EPA 3550C	Analysis Date: 3/17/2023							
Analyte	Result	PQL	SPK value	SPK RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
C15 - C28	66	25	49.86	0	132	70	130	62.53	4.87	20	S
Surr:n-Octacosane	7.82		7.978		98.1	50	150				
Surr:p-Terphenyl	7.92		7.978		99.3	50	150				

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified



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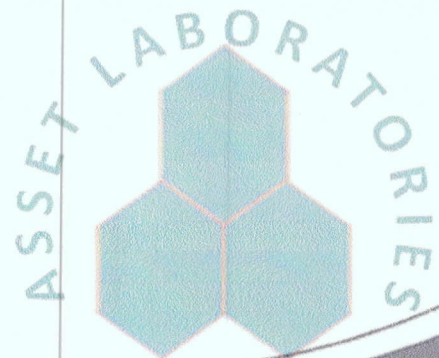
Analyzed by:

Algebra Shyla S. Buan
Chemical Technician
PRC License No. 006584

Certified by:

Kristiene S. Ferrer
Laboratory Supervisor
PRC License No. 0012899

Maria Carmela Q. Capule Ph.D.
Laboratory Director
PRC License No. 0007663



CHAIN OF CUSTODY RECORD

FOR LABORATORY USE ONLY:

CRL Environmental Corporation 1010 2nd Street, Suite 101, Berkeley, CA 94704 Tel: (415) 898-3943 Fax: (415) 898-3943		Lab. No. <u>P0013679C</u> P.O.# _____ Logged By: <u>EAL</u> Date: <u>3/15/23</u> Time: <u>11:20 H</u>		Method of Transport ☐ Walk-in ☐ Courier ☐ UPS ☒ FED. EXP. ☐ CRL Sample Condition Upon Receipt ☒ 1. CHILLED ☐ 4. SEALED ☐ Y ☐ N ☐ 2. HEADSPACE (VOA) ☐ 5. # OF SPLS MATCH COC ☒ Y ☐ N ☒ 3. CONTAINER INTACT ☐ 6. PRESERVED ☐ Y ☐ N	
Customer: <u>DENV - MINARORA</u> Attn: _____ Project # _____		State: _____ Zip Code: _____ City: _____		Tel: () _____ Fax: () _____ Signature: _____	
Relinquished by: (Signature and Printed Name) <u>Ma. Teresa Riziel I. Cayo</u> Date: <u>3/11/23</u> Time: _____		Received by: (Signature and Printed Name) <u>Ma. Teresa Riziel I. Cayo</u> Date: <u>3/12/23</u> Time: <u>3:28 PM</u>		Relinquished by: (Signature and Printed Name) <u>[Signature]</u> Date: <u>3/12/23</u> Time: <u>1:10 AM</u>	
Relinquished by: (Signature and Printed Name) <u>[Signature]</u> Date: _____ Time: _____		Received by: (Signature and Printed Name) <u>[Signature]</u> Date: _____ Time: _____		Relinquished by: (Signature and Printed Name) <u>[Signature]</u> Date: _____ Time: _____	

SHIP TO LAB: (SUB CONTRACT) _____ TEST: _____ DATE: _____ CUSTOMER I.D. _____		Project Mgr. / Submitter: <u>Ma. Teresa Riziel I. Cayo</u> Date: <u>3/11/23</u> Print Name _____ Signature _____		Send Report To: Attn: _____ Co: _____ Address: _____ City: _____ State: _____ Zip: _____ Write Analytical Requested _____	
Sample Archive / Disposal: ☐ Laboratory Standard ☐ Others ☐ Return To: *\$10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL		Sample Description <u>-11 Caidiguan River</u> <u>P0013679C-01</u> <u>Water in Tubing</u>		Sampling Date <u>3/10/23</u> <u>7:44 PM</u> <u>3/12/23</u> <u>11:10 AM</u>	

Unless otherwise requested, all remaining samples will be disposed of 15 days after the release of report LAB USE ONLY Lab No. <u>P0013679C-01</u>		Sample I.D. <u>-11 Caidiguan River</u> <u>P0013679C-01</u>		Sampling Date <u>3/10/23</u> <u>7:44 PM</u> <u>3/12/23</u> <u>11:10 AM</u>	
Sample Archive / Disposal: ☐ Laboratory Standard ☐ Others ☐ Return To: *\$10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL		Sample Description <u>-11 Caidiguan River</u> <u>P0013679C-01</u> <u>Water in Tubing</u>		Sampling Date <u>3/10/23</u> <u>7:44 PM</u> <u>3/12/23</u> <u>11:10 AM</u>	

TAT: A = _____ TAT starts 8 a.m. the following day if sample received beyond 12 noon at the laboratory		Emergency Alert B = _____ V=VOA L=Liter P=Pin B=Bedlar		Critical 2 C = _____ Urgent 3 Workdays	
Routine 7 Workdays E = _____ P=Plastic M=Metal		G=Glass J=Jar		Preservatives: H=HCl N=HNO ₃ S=H ₂ SO ₄ C=6% Z=Zn(Ac) ₂ O=NaOH T=Na ₂ S ₂ O ₃	

DISTRIBUTION: White with report, Yellow to folder, Pink to submitter