



CRL Environmental Corporation

14 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. Nos.: P00136674-01, 03, 05, 07

Enclosed are the results for samples received by CRL Environmental Corporation and tested for the parameters in the enclosed chain of custody.

Our DENR Recognition Certificate with C. R. No. 023/2021, will expire on August 25, 2024.

Likewise, our DOH Accreditation with Accreditation No. 03-001-2325-LW-2, is valid from January 01, 2023 until December 31, 2025.

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

Results of Analyses

DENR Region 4 - B (MIMAROPA)

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

Project Name: MT PRINCESS EMPRESS OIL SPILL

Attention: Dr. Lormelyn E. Claudio

SN: F00105400.003

Date Received: 03/12/2023

Lab No.: P00136674

Test Description	Results	Units	MDL	Test Methods	Date Analyzed	By	Ref
Sample No.: P00136674-01 Sample ID: A1 BRGY. MISONG, POLA, ORIENTAL MINDORO -Air- DateSampled: 03-09-23 13:43 Matrix: Air - Ambient							
Hydrogen Sulfide	ND	µg	0.05	Methylene Blue Colorimetry	03/12/23	RRH	
>>> end of result set for Sample No.:P00136674-01 <<<							
Sample No.: P00136674-03 Sample ID: A2 BRGY. BUHAY NA TUBIG, POLA, ORIENTAL MINDORO -Air- DateSampled: 03-10-23 10:32 Matrix: Air - Ambient							
Hydrogen Sulfide	ND	µg	0.05	Methylene Blue Colorimetry	03/12/23	RRH	
>>> end of result set for Sample No.:P00136674-03 <<<							
Sample No.: P00136674-05 Sample ID: A3 BRGY. CALIMA, POLA, ORIENTAL MINDORO -Air- DateSampled: 03-10-23 18:17 Matrix: Air - Ambient							
Hydrogen Sulfide	ND	µg	0.05	Methylene Blue Colorimetry	03/12/23	RRH	
>>> end of result set for Sample No.:P00136674-05 <<<							
Sample No.: P00136674-07 Sample ID: FIELD BLANK -Air- DateSampled: 03-10-23 11:02 Matrix: Air - Ambient							
Hydrogen Sulfide	ND	µg	0.05	Methylene Blue Colorimetry	03/12/23	RRH	
>>> end of result set for Sample No.:P00136674-07 <<<							

>>> end of result set for Lab No.:P00136674; Total no. of samples analyzed: 4 <<<

ND = Not Detected (Below MDL)

MDL = Method Detection Limit/s

Results are reported "as received basis".

Code of Federal Regulations (40 CFR), Part 50 to 51, Revised as of July 1, 2016.

Methods of Air Sampling and Analysis by James P. Lodge, Jr., Third Edition



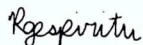
Analyzed by:



Ronaldo R. Hubilla
PRC License No.: 2665
Chemical Testing

Date: 03/14/2023

Certified by:



Ronald G. Espiritu
PRC License No.: 9248
Chemical Testing

Date: 03/14/2023



Juliana C. Oriña
PRC License No.: 8774
Chemical Testing

Date: 03/14/2023



Chas C. Arroyo
PRC License No.: 6701
Chemical Testing

Date: 03/14/2023



SN: F00105400.003

Disclaimer: This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the customer to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purpose without authorization is prohibited. This analytical report is NOT VALID without the official dry seal of CRL Environmental Corporation.



Calibration Date: **March 12, 2023**
MDL: 0.05 µg

CRL-FM-AA-015 Rev.2 04/04/09
CRL Environmental Corporation



CRL Environmental Corporation

29 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. Nos.: P00136674-02, 04, 06, 08

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

The above Lab. Nos. have a corresponding Lab. IDs PH004869-001A/004A 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: 21-Mar-23

CLIENT: CRLEN01
Project: P00136674
Lab Order: PH004869

CASE NARRATIVE

SAMPLE RECEIPT: Samples were received intact with proper chain of custody documentation.

HOLDING TIMES: Samples were received within holding time.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

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

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



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www.ph.assetlaboratories.com

Date: 21-Mar-23

CLIENT: CRL Environmental Corporation

Project: P00136674

Lab Order: PH004869

Contract No:

WORK ORDER SAMPLE SUMMARY

Lab Sample ID	Client Samp ID	Matrix	Collection Date	Date Received	Date Reported
PH004869-001	P00136674-02	Air	03/09/2023 2:24PM	03/13/2023 10:22AM	03/21/2023 5:54PM
PH004869-002	P00136674-04	Air	03/09/2023 11:02AM	03/13/2023 10:22AM	03/21/2023 5:54PM
PH004869-003	P00136674-06	Air	03/09/2023 6:17PM	03/13/2023 10:22AM	03/21/2023 5:54PM
PH004869-004	P00136674-08	Air	03/10/2023 11:02AM	03/13/2023 10:22AM	03/21/2023 5:54PM



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ANALYTICAL SAMPLE RESULTS

Print Date: 21-Mar-23

CLIENT: CRL Environmental Corporation
Lab. Order: PH004869
Project: P00136674
Lab ID: PH004869-001A

Client Sample ID: P00136674-02
Collection Date: 3/9/2023 2:24PM
Matrix: Air

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
Aromatic Hydrocarbons by GC-FID			TestNo: NIOSH 1501			Prep-TestNo: GEN PREP	
RunID: GC02_230314A	QC Batch: 05473		PrepDate: 03/14/2023			Analyst: CPLB	
Benzene	ND	0.078	0.22		ug/tube	1	3/14/2023 12:05 PM
Ethyl Benzene	ND	0.075	0.22		ug/tube	1	3/14/2023 12:05 PM
m,p-Xylene	ND	0.15	0.43		ug/tube	1	3/14/2023 12:05 PM
o-Xylene	ND	0.071	0.22		ug/tube	1	3/14/2023 12:05 PM
Toluene	ND	0.075	0.22		ug/tube	1	3/14/2023 12:05 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

PH004869_FINAL_230321 1754H

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ANALYTICAL SAMPLE RESULTS

Print Date: 21-Mar-23

CLIENT: CRL Environmental Corporation
Lab. Order: PH004869
Project: P00136674
Lab ID: PH004869-002A

Client Sample ID: P00136674-04
Collection Date: 3/9/2023 11:02AM
Matrix: Air

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
Aromatic Hydrocarbons by GC-FID			TestNo: NIOSH 1501			Prep-TestNo: GEN PREP	
RunID: GC02_230314A	QC Batch: 05473		PrepDate: 03/14/2023			Analyst: CPLB	
Benzene	ND	0.078	0.22		ug/tube	1	3/14/2023 01:36 PM
Ethyl Benzene	ND	0.075	0.22		ug/tube	1	3/14/2023 01:36 PM
m,p-Xylene	ND	0.15	0.43		ug/tube	1	3/14/2023 01:36 PM
o-Xylene	ND	0.071	0.22		ug/tube	1	3/14/2023 01:36 PM
Toluene	ND	0.075	0.22		ug/tube	1	3/14/2023 01:36 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

PH004869_FINAL_230321 1754H

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ANALYTICAL SAMPLE RESULTS

Print Date: 21-Mar-23

CLIENT: CRL Environmental Corporation
Lab. Order: PH004869
Project: P00136674
Lab ID: PH004869-003A

Client Sample ID: P00136674-06
Collection Date: 3/9/2023 6:17PM
Matrix: Air

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
Aromatic Hydrocarbons by GC-FID			TestNo: NIOSH 1501			Prep-TestNo: GEN PREP	
RunID: GC02_230314A	QC Batch: 05473		PrepDate: 03/14/2023			Analyst: CPLB	
Benzene	ND	0.078	0.22		ug/tube	1	3/14/2023 02:37 PM
Ethyl Benzene	ND	0.075	0.22		ug/tube	1	3/14/2023 02:37 PM
m,p-Xylene	ND	0.15	0.43		ug/tube	1	3/14/2023 02:37 PM
o-Xylene	ND	0.071	0.22		ug/tube	1	3/14/2023 02:37 PM
Toluene	ND	0.075	0.22		ug/tube	1	3/14/2023 02:37 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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ANALYTICAL SAMPLE RESULTS

Print Date: 21-Mar-23

CLIENT: CRL Environmental Corporation
Lab. Order: PH004869
Project: P00136674
Lab ID: PH004869-004A

Client Sample ID: P00136674-08
Collection Date: 3/10/2023 11:02AM
Matrix: Air

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
Aromatic Hydrocarbons by GC-FID			TestNo: NIOSH 1501			Prep-TestNo: GEN PREP	
RunID: GC02_230314A	QC Batch: 05473		PrepDate: 03/14/2023			Analyst: CPLB	
Benzene	ND	0.078	0.22		ug/tube	1	3/14/2023 04:40 PM
Ethyl Benzene	ND	0.075	0.22		ug/tube	1	3/14/2023 04:40 PM
m,p-Xylene	ND	0.15	0.43		ug/tube	1	3/14/2023 04:40 PM
o-Xylene	ND	0.071	0.22		ug/tube	1	3/14/2023 04:40 PM
Toluene	ND	0.075	0.22		ug/tube	1	3/14/2023 04:40 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: 21-Mar-23

CLIENT: CRL Environmental Corporation

Work Order: PH004869

Project: P00136674

ANALYTICAL QC SUMMARY REPORT

TestCode: 1501BTEX_A

SampID: MB-05473	SampType: MBLK	TestCode: 1501BTEX_A	Units: ug/tube	PrepDate: 3/14/2023							
Client ID: MBLK	Batch ID: 05473	TestNo: NIOSH 1501	Prep-TestNo: GEN PREP	Analysis Date: 3/14/2023							
Analyte	Result	PQL	SPK value	SPK ReVal	%REC	LowLimit	HighLimit	RPD ReVal	%RPD	RPDLimit	Qual
Benzene	ND	0.22									
Ethyl Benzene	ND	0.22									
m,p-Xylene	ND	0.43									
o-Xylene	ND	0.22									
Toluene	ND	0.22									

SampID: LCS-05473	SampType: LCS	TestCode: 1501BTEX_A	Units: ug/tube	PrepDate: 3/14/2023							
Client ID: LCS	Batch ID: 05473	TestNo: NIOSH 1501	Prep-TestNo: GEN PREP	Analysis Date: 3/14/2023							
Analyte	Result	PQL	SPK value	SPK RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	3.4	0.22	3.510	0	97.6	89	111				
Ethyl Benzene	3.4	0.22	3.460	0	98.3	83	117				
m,p-Xylene	6.6	0.43	6.880	0	96.5	89	111				
o-Xylene	3.2	0.22	3.440	0	94.2	89	111				
Toluene	3.4	0.22	3.460	0	97.9	89	111				

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



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Date: 21-Mar-23

ANALYTICAL QC SUMMARY REPORT

TestCode: 1501BTEx_A

CLIENT: CRL Environmental Corporation

Work Order: PH004869

Project: P00136674

SampleID: LCSD-05473	SampleType: LCSD	TestCode: 1501BTEx_A	Units: ug/tube	PrepDate: 3/14/2023							
Client ID: LCSD	Batch ID: 05473	TestNo: NIOSH 1501	Prep-TestNo: GEN PREP	Analysis Date: 3/14/2023							
Analyte	Result	PQL	SPK value	SPK RefVal	%REC	LowLimit	HighLimit	RPD RefVal	%RPD	RPDLimit	Qual
Benzene	3.6	0.22	3.510	0	102	89	111	3.425	4.62	20	
Ethyl Benzene	3.5	0.22	3.460	0	101	83	117	3.402	2.53	20	
m,p-Xylene	6.8	0.43	6.880	0	99.0	89	111	6.641	2.54	20	
o-Xylene	3.3	0.22	3.440	0	96.7	89	111	3.242	2.56	20	
Toluene	3.5	0.22	3.460	0	100	89	111	3.389	2.48	20	

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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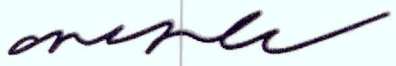
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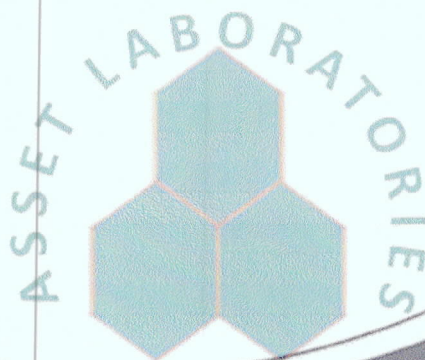
Analyzed by:


Christian Pol L. Bonde
Analyst II
PRC License No. 0002529

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

Failure to complete all sections of this form may delay analysis. Please fill out this form LEGIBLY and ACCURATELY.

Page 1 of 1

 CRL Calabarquez Corporation		FOR LABORATORY USE ONLY:	
Customer: DENR - MMAROPA Address: 5th Floor, DENR By the Bay Bldg, 15th Ave, Divd. Ermita, Manila City: _____ State: _____ Tel. No. () _____ Fax No. () _____		Method of Transport Walk-in ☐ Courier ☐ UPS ☐ FED. EXP. ☒ CRL ☐ Date: 12/13/23 Time: 18:54H	
Project Name: MT Pines Express Oil Spill Relinquished by: (Signature and Printed Name) _____ Date: 3/12/23 Time: 4:10 AM Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____ Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____		Sample: (Printed Name) _____ Received by: (Signature and Printed Name) _____ Date: 3-12-23 Time: 1:10 AM Received by: (Signature and Printed Name) _____ Date: 3-12-23 Time: 08:06H	
SHIP TO LAB: (SUB CONTRACT) _____ TEST: _____ DATE: 3/11/23 CUSTOMER I.D.: _____		Special Instructions/Comments: DENR-MMAROPA Designation: Regional Greenhouse Gases Email Address: _____ City: _____ State: _____ Zip: _____	
I hereby authorize CRL to perform the work indicated below. Project Manager/ Submitter: Mr. Teresa R. Rizal Printed Name and Signature _____ Date: 3/11/23		Write Analysis(es) Requested VOC CHL (C)	
Sample Archive/Disposal: ☐ Laboratory Standard ☐ Others _____ ☐ Return To: _____ *\$10.00 FEE PER HAZARDOUS SAMPLE DISPOSAL		CIRCLE APPROPRIATE MATRIX	
LAB USE ONLY: LAB. No. _____		Container(s) Type _____ TAT # _____ REMARKS _____	
Unless otherwise requested, all remaining samples will be disposed 15 days after the release of report		Write Analysis(es) Requested: VOC CHL (C)	
Sample Description: A1 - pola - circular metal tubular A2 - pola - circular metal tubular A3 - pola - circular metal tubular A4 - pola - circular metal tubular A5 - pola - circular metal tubular A6 - pola - circular metal tubular		Sample I.D. _____ Sampling Date _____ Sampling Time _____	
TAT: A= _____ B= _____ C= _____ D= _____ E= _____ F= _____ G= _____ H= _____ I= _____ J= _____ K= _____ L= _____ M= _____ N= _____ O= _____ P= _____ Q= _____ R= _____ S= _____ T= _____ U= _____ V= _____ W= _____ X= _____ Y= _____ Z= _____		TAT: A= _____ B= _____ C= _____ D= _____ E= _____ F= _____ G= _____ H= _____ I= _____ J= _____ K= _____ L= _____ M= _____ N= _____ O= _____ P= _____ Q= _____ R= _____ S= _____ T= _____ U= _____ V= _____ W= _____ X= _____ Y= _____ Z= _____	
TAT starts 8 A.M. the following day if sample received beyond 12 noon at the laboratory.		Preservatives: H=HCl N=HNO ₃ S=H ₂ SO ₄ C=<6°C Z=Zn(AC) ₂ O=NaOH T=Na ₂ S ₂ O ₃	

DISTRIBUTION: WHITE with report, YELLOW to folder, PINK to submitter