ENSOLUM

October 28, 2022

New Mexico Oil Conservation Division
New Mexico Energy, Minerals, and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Closure Request
Windward Federal CTB
Incident Number NAPP2222347897
Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of COG Operating, LLC (COG), has prepared this *Closure Request* to document site assessment and soil sampling activities performed at the Windward Federal CTB (Site). The purpose of the site assessment and soil sampling activities was to address impacts to soil resulting from a release of crude oil at the Site. Based on field observations, field screening activities, and laboratory analytical results from the soil sampling events, COG is submitting this *Closure Request*, describing remediation that has occurred and requesting closure for Incident Number NAPP2222347897.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit D, Section 30, Township 24 South, Range 32 East, in Lea County, New Mexico (32.195278° N, 103.718056° W) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On July 30, 2022, a hole in the flare scrubber drain line resulted in the release of approximately 7.29 barrels (bbls) of crude oil onto the pad. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; approximately 5 bbls of the released fluids were recovered. COG reported the release immediately to the New Mexico Oil Conservation Division (NMOCD) via email on August 1, 2022 and submitted a Release Notification Form C-141 (Form C-141) on August 11, 2022. The release was assigned Incident Number NAPP2222347897.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, (19.15.29.12) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. On September 15, 2022, borehole BH01 (New Mexico Office of the State Engineer (NMOSE) file number C-4665) was advanced to a depth of 120 feet bgs via air rotary drill rig. The borehole was located approximately 0.34 miles east of the Site and is depicted on Figure 1. A field geologist logged and described soils continuously. The borehole lithologic/soil sampling

log is included in Appendix A. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period, groundwater was not observed and it was confirmed that groundwater beneath the Site is greater than 120 feet bgs. The borehole was properly abandoned using hydrated bentonite chips. All wells used for depth to groundwater determination are depicted on Figure 1 and the associated well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is an freshwater pond, located approximately 5,596 feet southeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

Based on the results of the Site Characterization, the following NMOCD Table I Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and TPH-diesel range organics (DRO): 1,000 mg/kg
- Total Petroleum Hydrocarbons (TPH): 2,500 mg/kg
- Chloride: 20,000 mg/kg

SITE ASSESSMENT ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On August 11, 2022, Ensolum personnel visited the Site to evaluate the release extent and conduct site assessment activities. Ensolum personnel collected four soil samples (SS01 through SS04), collected at 0.5 feet bgs around and within the release extent, to assess the lateral extent of the release. The soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The visible release extent and soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following chemicals of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH- GRO, TPH- DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for soil samples SS02 through SS04 indicated all COC concentrations were compliant with the Site Closure Criteria and successfully define the lateral extent of the release. Laboratory analytical results for SS01 indicated TPH-GRO/TPH-DRO and TPH concentrations exceeded the Site Closure Criteria. Based on visible staining in the release extent and laboratory analytical results, excavation activities were warranted.

EXCAVATION AND DELINEATION SOIL SAMPLE ACTIVITIES

On September 8, 2022, Ensolum personnel were onsite to oversee excavation and delineation activities as indicated by visible staining. Excavation activities were performed using track-mounted backhoe and transport vehicles. The excavation areal extent was only 129 square feet and 0.5 feet deep and since composite samples are to be collected every 200 square feet, a composite sample did not appear to be appropriate for this de minimis excavation. As such, discrete soil samples were collected to verify impacted soil was adequately removed. A total of 4 cubic yards of soil were transported to a New Mexico-approved landfill.

Upon completion of excavation activities, one borehole (BH01) was advanced via backhoe within the release extent to assess the vertical extent of impacted soil. The borehole was advanced to a depth of 2 feet bgs. Delineation soil samples were collected from the borehole at depths of 1-foot and 2 feet bgs. Soil from the boreholes was field screened for VOCs and chloride. Field screening results and observations for the borehole were logged on lithologic soil sampling logs, which are included in Appendix B. Soil samples from borehole BH01 were submitted for laboratory analysis of BTEX, TPH, and chloride.

The delineation soil sample location is depicted on Figure 2. Photographic documentation was conducted during the Site visit and is included in Appendix C.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for borehole soil sample BH01 at 1-foot and 2 feet bgs, indicated all COC concentrations were compliant with the Site Closure Criteria. In addition, soil samples SS02 through SS04 were compliant with the Site Closure Criteria and successfully define the lateral extent of the release. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

CLOSURE REQUEST

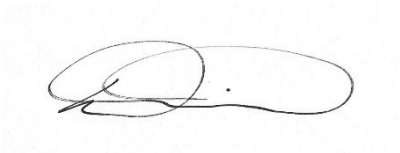
Site assessment and excavation activities were conducted at the Site to address the July 30, 2022, release of crude oil at the Site. Based on excavation activities and laboratory analytical results for the vertical and lateral delineation soil samples indicated all COC concentrations were compliant with the Closure Criteria. Based on the soil sample analytical results, no further remediation was required. COG will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions.

Excavation of impacted soil has mitigated impacts at this Site. COG believes the remedial actions are protective of human health, the environment, and groundwater. As such, COG respectfully requests closure for Incident Number NAPP2222347897. The Final C-141 is included in Appendix E.

If you have any questions or comments, please contact Ms. Kalei Jennings at (817) 683-2503 or kjennings@ensolum.com.

Sincerely,
Ensolum, LLC

Kalei Jennings
Senior Project Manager



Daniel R. Moir, PG
Senior Managing Geologist

cc: Charles Beauvais, COG Operating, LLC
Bureau of Land Management

Appendices:

Figure 1	Site Receptor Map
Figure 2	Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Referenced Well Records
Appendix B	Lithologic/Soil Sampling Log
Appendix C	Photographic Log
Appendix D	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix E	Final C-141

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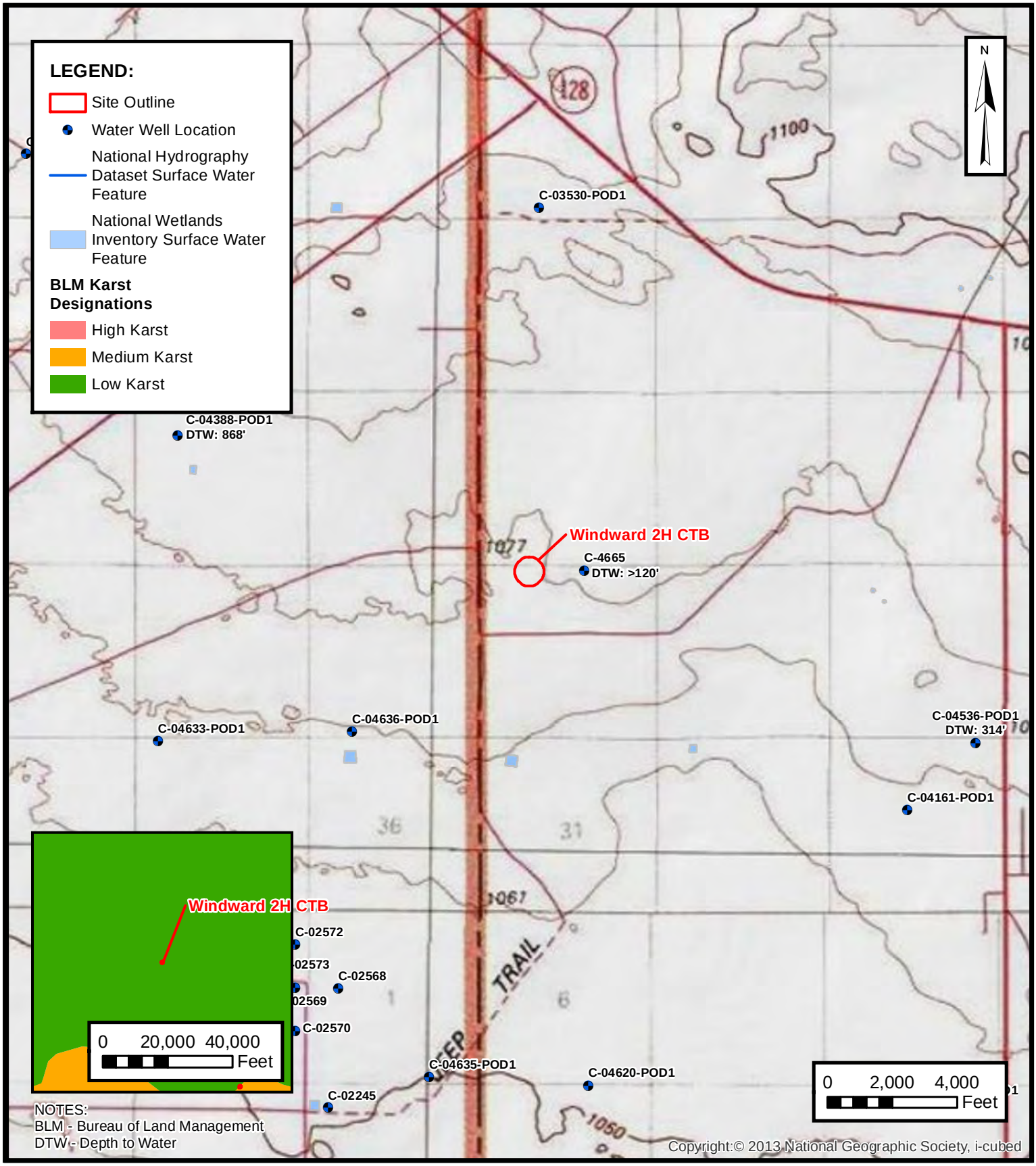
FIGURES



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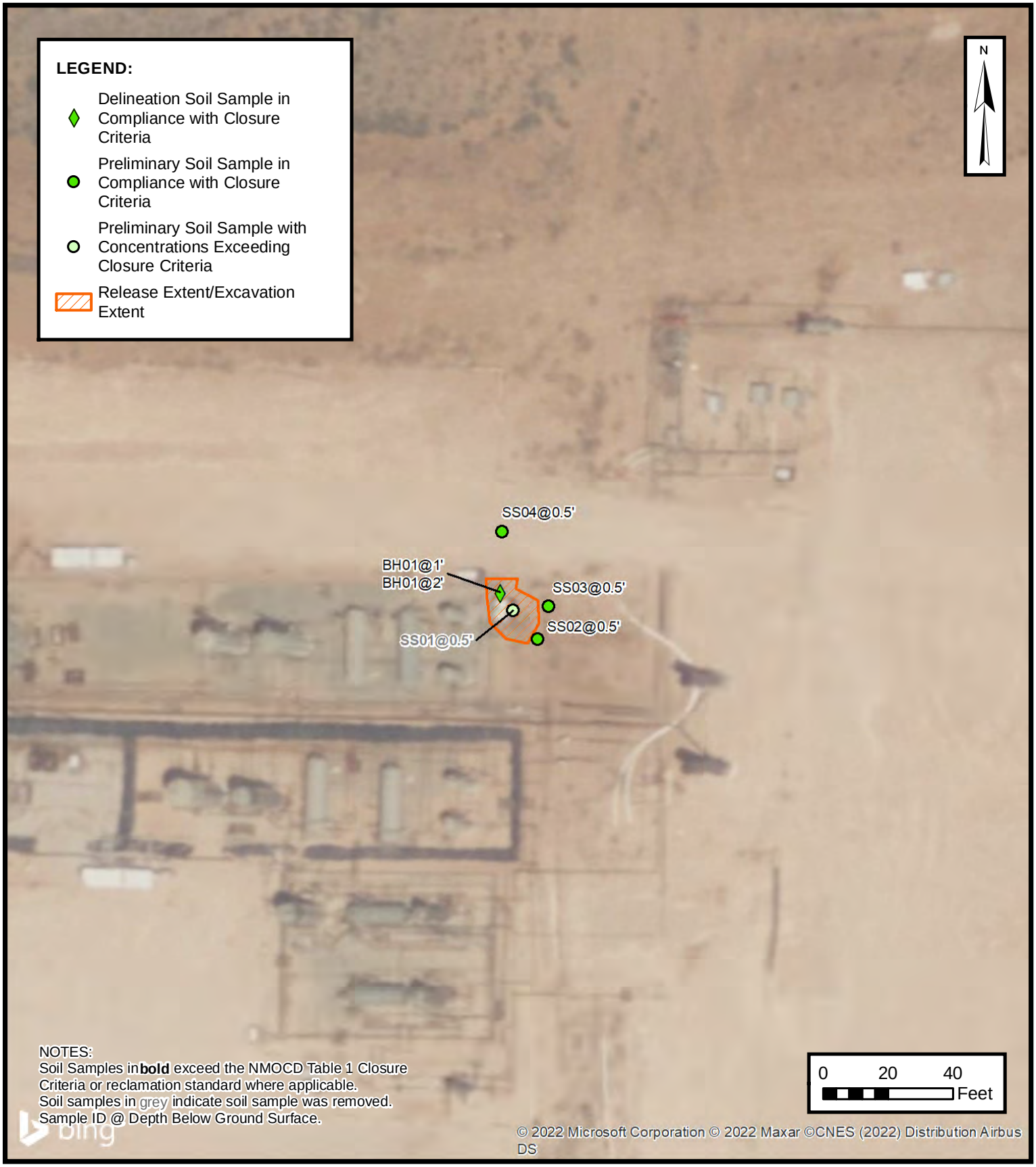
Environmental, Engineering and Hydrogeologic Consultants

SITE RECEPTOR MAP

COG OPERATING, LLC
Windward 2H Federal CTB
NAPP2222347897
Unit D, Sec 30 T24S R32E Lea County, New Mexico

FIGURE
1



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SOIL SAMPLE LOCATIONS

COG OPERATING, LLC
WINDWARD FEDERAL CTB
NAPP2222347897
Unit D, Sec 30 T24S R32E
Lea County, New Mexico

FIGURE

2

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Windward Federal CTB
COG Operating, LLC
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Preliminary Assessment Soil Samples										
SS01	08/11/2022	0.5	<0.401	**148**	3,070	8,910	1,730	**11,980**	**13,700**	109
SS02	08/11/2022	0.5	<0.00201	0.0174	<49.9	<49.9	<49.9	<49.9	<49.9	12.0
SS03	08/11/2022	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	41.0
SS04	08/11/2022	0.5	<0.00202	<0.00404	<49.9	<49.9	80.3	80.3	80.3	18.7
Delineation Soil Samples										
BH01	09/08/2022	1	<0.00201	<0.00402	<49.9	80.5	131	81	212	22.1
BH01	09/08/2022	2	<0.00200	<0.00399	<49.8	<49.8	95.0	<49.8	95.0	25.3

Notes:

bgs: below ground surface
mg/kg: milligrams per kilogram
NMOCD: New Mexico Oil Conservation Division
BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes
Concentrations in bold exceed the NMOCD Table 1 Closure Criteria or reclamation standard where applicable.

GRO: Gasoline Range Organics
DRO: Diesel Range Organics
ORO: Oil Range Organics
TPH: Total Petroleum Hydrocarbon

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APPENDIX A

Referenced Well Records

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Client: CONOCO PHILLIPS
Project Name: KING TUT FEDERAL 003H
Project Location: LEA COUNTY, NM
Project Manager: KALEI JENNINGS

BORING LOG NUMBER
BH01
Project No. 03D2024082

Date Sampled: 09/15/2022
Drilled by: WTWWS
Driller: RUSSELL SOUTHERLAND
Logged by: HADLIE GREEN
Sampler: HADLIE GREEN

Ground Surface Elevation:
Top of Casing Elevation:
North Coordinate:
West Coordinate:
Bench Mark Elevation:
At Completion
At Well Stabilization

Borehole Diameter: 6"
Casing Diameter: –
Well Materials: –
Surface Completion: –
Boring Method: AIR ROTARY

DEPTH (ft)	SAMPLE INTERVAL	SAMPLE ID	RECOVERY (%)	FID/PID READING (ppm)	POTENTIOMETRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION	BORING / WELL COMPLETION (GRAPHIC DEPICTION)
							pg. 1 of 2	
0						0' CCHE	CALICHE, light tan, fine to medium grain, up to 1" limestone clasts, slightly moist, no stain/odor.	
						10' SM	SILTY SAND, pinkish red, fine grain, 1-2 cm limestone clasts, well sorted, moderate grade, slightly consolidated, no stain/odor.	
20'								
40'						SM	SAA, reddish brown, trace limestone clasts (1-2 cm).	
60'						SM	SAA, abundant subrounded mud clasts up to 1".	
80'						SM	90': SAA, some green mud clasts (1-3 mm), slightly consolidated.	
100'								

ENSOLUM

Client: CONOCO PHILLIPS
Project Name: KING TUT FEDERAL 003H
Project Location: LEA COUNTY, NM
Project Manager: KALEI JENNINGS

BORING LOG NUMBER
BH01
Project No. 03D2024082

Date Sampled: 09/15/2022
Drilled by: WTWWS
Driller: RUSSELL SOUTHERLAND
Logged by: HADLIE GREEN
Sampler: HADLIE GREEN

Ground Surface Elevation:
Top of Casing Elevation:
North Coordinate:
West Coordinate:
Bench Mark Elevation:
At Completion
At Well Stabilization

Borehole Diameter: 6"
Casing Diameter: -
Well Materials:
Surface Completion: -
Boring Method: AIR ROTARY

DEPTH (ft)	SAMPLE INTERVAL	SAMPLE ID	RECOVERY (%)	FID/PID READING (ppm)	POTENTIOMETRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION	BORING / WELL COMPLETION (GRAPHIC DEPICTION)
							pg. 2 of 2	
100'						SM	SILTY SAND, Reddish brown, fine grain, less mud clasts, No green mud clasts, well sorted, slightly consolidated, no stain / odor.	
120'							TD @ 120 feet bgs	

10
15
20
25

New Mexico Office of the State Engineer
Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
22333	C 04388 POD1	3	2	1	23	24S	31E	617546	3564006

Driller License: 1058 **Driller Company:** KEY'S DRILLING & PUMP SERVICE

Driller Name: KEY, GARYR.S AICHARDDENAS

Drill Start Date:	12/18/2019	**Drill Finish Date:**	02/22/2020	**Plug Date:**	
Log File Date:	02/27/2020	**PCW Rcv Date:**		**Source:**	Artesian
Pump Type:		**Pipe Discharge Size:**		**Estimated Yield:**	60 GPM
Casing Size:	4.50	**Depth Well:**	910 feet	**Depth Water:**	868 feet

Water Bearing Stratifications:	Top	Bottom	Description
	866	868	Limestone/Dolomite/Chalk

Casing Perforations:	Top	Bottom
	850	910

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APPENDIX B

Lithologic/Soil Sampling Log

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Sample Name: BH01	Date: 9-8-2022	
Site Name: Windward 2H CTB		
Incident Number: NAPP2222347897		
Job Number: 03D2024079		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: LC	Method: Pothole
Coordinates: 32.195298, -103.718340	Hole Diameter: N/A	Total Depth: 2'

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0	CCHE	Caliche, brown and tan no odor, no stain, dry
D	<168	0	N	BH01	1	1		
D	<168	0	N	BH01	2	2		TD: 2 feet bgs
						3		
						4		

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APPENDIX C

Photographic Log

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Photographic Log
COG Operating, LLC
Windward Federal CTB
Incident Number NAPP2222347897

Photograph 1 Date: July 30, 2022
Description: Initial release photo.

Photograph 2 Date: July 30, 2022
Description: View of release area facing north.

Photograph 3 Date: September 8, 202
Description: View of remediation activities, facing southeast.

Photograph 4 Date: September 8, 2022
Description: View of final excavation facing south.

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APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2742-1
Laboratory Sample Delivery Group: 03D2024079
Client Project/Site: Windward 2H CTB

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Kalei Jennings

JKramer

Authorized for release by:
8/22/2022 3:38:05 PM

Jessica Kramer, Project Manager
(432)704-5440
Jessica.Kramer@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

Client: Ensolum
Project/Site: Windward 2H CTB

Laboratory Job ID: 890-2742-1
SDG: 03D2024079

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2742-1
SDG: 03D2024079

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2742-1
SDG: 03D2024079

Job ID: 890-2742-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2742-1

Receipt
The sample was received on 8/11/2022 3:27 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.4°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-32565 and analytical batch 880-32572 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2742-1
SDG: 03D2024079

Client Sample ID: SS04

Date Collected: 08/11/22 12:15
Date Received: 08/11/22 15:27
Sample Depth: 0.5

Lab Sample ID: 890-2742-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		08/20/22 11:55	08/22/22 11:48	1
Toluene	<0.00202	U	0.00202		mg/Kg		08/20/22 11:55	08/22/22 11:48	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		08/20/22 11:55	08/22/22 11:48	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		08/20/22 11:55	08/22/22 11:48	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		08/20/22 11:55	08/22/22 11:48	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		08/20/22 11:55	08/22/22 11:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*77*		*70 - 130*	*08/20/22 11:55*	*08/22/22 11:48*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*08/20/22 11:55*	*08/22/22 11:48*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			08/22/22 14:35	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**80.3**		49.9		mg/Kg			08/16/22 09:21	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		08/15/22 10:43	08/15/22 18:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		08/15/22 10:43	08/15/22 18:45	1
Oil Range Organics (Over C28-C36)	**80.3**		49.9		mg/Kg		08/15/22 10:43	08/15/22 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*08/15/22 10:43*	*08/15/22 18:45*	*1*
o-Terphenyl	*95*		*70 - 130*	*08/15/22 10:43*	*08/15/22 18:45*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**18.7**		5.03		mg/Kg			08/16/22 06:25	1

Surrogate Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2742-1
SDG: 03D2024079

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-18292-A-1-D MS	Matrix Spike	111	95										
880-18292-A-1-E MSD	Matrix Spike Duplicate	88	97										
890-2742-1	SS04	77	103										
LCS 880-32565/1-A	Lab Control Sample	106	104										
LCSD 880-32565/2-A	Lab Control Sample Dup	109	94										
MB 880-32563/5-A	Method Blank	79	116										
MB 880-32565/5-A	Method Blank	79	115										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-18058-A-1-B MS	Matrix Spike	92	86										
880-18058-A-1-C MSD	Matrix Spike Duplicate	92	88										
890-2742-1	SS04	86	95										
LCS 880-32158/2-A	Lab Control Sample	123	129										
LCSD 880-32158/3-A	Lab Control Sample Dup	119	123										
MB 880-32158/1-A	Method Blank	91	103										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2742-1
SDG: 03D2024079

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-32563/5-A
Matrix: Solid
Analysis Batch: 32572

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32563

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/20/22 11:38	08/21/22 15:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/20/22 11:38	08/21/22 15:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/20/22 11:38	08/21/22 15:32	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/20/22 11:38	08/21/22 15:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/20/22 11:38	08/21/22 15:32	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/20/22 11:38	08/21/22 15:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*	*08/20/22 11:38*	*08/21/22 15:32*	*1*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*08/20/22 11:38*	*08/21/22 15:32*	*1*

Lab Sample ID: MB 880-32565/5-A
Matrix: Solid
Analysis Batch: 32572

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32565

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/20/22 11:55	08/22/22 03:08	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/20/22 11:55	08/22/22 03:08	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/20/22 11:55	08/22/22 03:08	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/20/22 11:55	08/22/22 03:08	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/20/22 11:55	08/22/22 03:08	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/20/22 11:55	08/22/22 03:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*	*08/20/22 11:55*	*08/22/22 03:08*	*1*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*	*08/20/22 11:55*	*08/22/22 03:08*	*1*

Lab Sample ID: LCS 880-32565/1-A
Matrix: Solid
Analysis Batch: 32572

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32565

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09644		mg/Kg		96	70 - 130		
Toluene			0.100	0.1021		mg/Kg		102	70 - 130		
Ethylbenzene			0.100	0.1024		mg/Kg		102	70 - 130		
m-Xylene & p-Xylene			0.200	0.1900		mg/Kg		95	70 - 130		
o-Xylene			0.100	0.1026		mg/Kg		103	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: LCSD 880-32565/2-A
Matrix: Solid
Analysis Batch: 32572

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32565

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08950		mg/Kg		89	70 - 130	7	35

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2742-1
SDG: 03D2024079

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-32565/2-A
Matrix: Solid
Analysis Batch: 32572

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32565

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1074		mg/Kg		107	70 - 130	5	35
Ethylbenzene			0.100	0.1108		mg/Kg		111	70 - 130	8	35
m-Xylene & p-Xylene			0.200	0.2083		mg/Kg		104	70 - 130	9	35
o-Xylene			0.100	0.1122		mg/Kg		112	70 - 130	9	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*

Lab Sample ID: 880-18292-A-1-D MS
Matrix: Solid
Analysis Batch: 32572

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32565

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U F1	0.101	0.08144		mg/Kg		81	70 - 130
Toluene	<0.00199	U	0.101	0.09736		mg/Kg		97	70 - 130
Ethylbenzene	<0.00199	U F2	0.101	0.1011		mg/Kg		100	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.201	0.1900		mg/Kg		94	70 - 130
o-Xylene	<0.00199	U F1 F2	0.101	0.1002		mg/Kg		100	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: 880-18292-A-1-E MSD
Matrix: Solid
Analysis Batch: 32572

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 32565

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.0998	0.05964	F1	mg/Kg		60	70 - 130	31	35
Toluene	<0.00199	U	0.0998	0.06975		mg/Kg		70	70 - 130	33	35
Ethylbenzene	<0.00199	U F2	0.0998	0.07051	F2	mg/Kg		71	70 - 130	36	35
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.200	0.1254	F1 F2	mg/Kg		62	70 - 130	41	35
o-Xylene	<0.00199	U F1 F2	0.0998	0.06585	F1 F2	mg/Kg		66	70 - 130	41	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-32158/1-A
Matrix: Solid
Analysis Batch: 32121

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32158

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/15/22 10:43	08/15/22 10:50	1

QC Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2742-1
SDG: 03D2024079

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-32158/1-A
Matrix: Solid
Analysis Batch: 32121

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32158

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/15/22 10:43	08/15/22 10:50	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/15/22 10:43	08/15/22 10:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*08/15/22 10:43*	*08/15/22 10:50*	*1*
o-Terphenyl	*103*		*70 - 130*	*08/15/22 10:43*	*08/15/22 10:50*	*1*

Lab Sample ID: LCS 880-32158/2-A
Matrix: Solid
Analysis Batch: 32121

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32158

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1127		mg/Kg		113	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1099		mg/Kg		110	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*123*		*70 - 130*
o-Terphenyl	*129*		*70 - 130*

Lab Sample ID: LCSD 880-32158/3-A
Matrix: Solid
Analysis Batch: 32121

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32158

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1094		mg/Kg		109	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	1054		mg/Kg		105	70 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*119*		*70 - 130*
o-Terphenyl	*123*		*70 - 130*

Lab Sample ID: 880-18058-A-1-B MS
Matrix: Solid
Analysis Batch: 32121

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32158

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1002		mg/Kg		100	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	999	874.4		mg/Kg		88	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*92*		*70 - 130*
o-Terphenyl	*86*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2742-1
SDG: 03D2024079

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-18058-A-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 32121 — **Prep Batch: 32158**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1014		mg/Kg		102	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	905.8		mg/Kg		91	70 - 130	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*92*		*70 - 130*
o-Terphenyl	*88*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-32160/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 32201

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.98	U	4.98		mg/Kg			08/16/22 02:34	1

Lab Sample ID: LCS 880-32160/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 32201

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	254.1		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-32160/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 32201

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			251	243.5		mg/Kg		97	90 - 110	4	20

Lab Sample ID: 880-18061-A-1-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 32201

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	207		250	472.1		mg/Kg		106	90 - 110		

Lab Sample ID: 880-18061-A-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 32201

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	207		250	472.9		mg/Kg		106	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2742-1
SDG: 03D2024079

GC VOA

Prep Batch: 32563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-32563/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 32565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2742-1	SS04	Total/NA	Solid	5035	
MB 880-32565/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-32565/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-32565/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-18292-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
880-18292-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 32572

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2742-1	SS04	Total/NA	Solid	8021B	32565
MB 880-32563/5-A	Method Blank	Total/NA	Solid	8021B	32563
MB 880-32565/5-A	Method Blank	Total/NA	Solid	8021B	32565
LCS 880-32565/1-A	Lab Control Sample	Total/NA	Solid	8021B	32565
LCSD 880-32565/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	32565
880-18292-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	32565
880-18292-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	32565

Analysis Batch: 32700

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2742-1	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 32121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2742-1	SS04	Total/NA	Solid	8015B NM	32158
MB 880-32158/1-A	Method Blank	Total/NA	Solid	8015B NM	32158
LCS 880-32158/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32158
LCSD 880-32158/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32158
880-18058-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	32158
880-18058-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	32158

Prep Batch: 32158

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2742-1	SS04	Total/NA	Solid	8015NM Prep	
MB 880-32158/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32158/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32158/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-18058-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-18058-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 32209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2742-1	SS04	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2742-1
SDG: 03D2024079

HPLC/IC

Leach Batch: 32160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2742-1	SS04	Soluble	Solid	DI Leach	
MB 880-32160/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32160/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32160/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-18061-A-1-E MS	Matrix Spike	Soluble	Solid	DI Leach	
880-18061-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 32201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2742-1	SS04	Soluble	Solid	300.0	32160
MB 880-32160/1-A	Method Blank	Soluble	Solid	300.0	32160
LCS 880-32160/2-A	Lab Control Sample	Soluble	Solid	300.0	32160
LCSD 880-32160/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32160
880-18061-A-1-E MS	Matrix Spike	Soluble	Solid	300.0	32160
880-18061-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	32160

Lab Chronicle

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2742-1
SDG: 03D2024079

Client Sample ID: SS04

Date Collected: 08/11/22 12:15
Date Received: 08/11/22 15:27

Lab Sample ID: 890-2742-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.95 g	5 mL	32565	08/20/22 11:55	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	32572	08/22/22 11:48	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32700	08/22/22 14:35	SM	EET MID
Total/NA	Analysis	8015 NM		1			32209	08/16/22 09:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	32158	08/15/22 10:43	DM	EET MID
Total/NA	Analysis	8015B NM		1			32121	08/15/22 18:45	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	32160	08/15/22 11:22	KS	EET MID
Soluble	Analysis	300.0		1			32201	08/16/22 06:25	CH	EET MID

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2742-1
SDG: 03D2024079

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2742-1
SDG: 03D2024079

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2742-1
SDG: 03D2024079

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2742-1	SS04	Solid	08/11/22 12:15	08/11/22 15:27	0.5

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennigns
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	kjennings@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Windward 2H CTB	Turn Around	
Project Number:	03D2024079	☑ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:	Conner Shore	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	TPM007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	5.6	
Total Containers:		Corrected Temperature:	5.4	

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2S0_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)	Sample Comments
SS04	S	08.11.22	1215	0.5'	G	1		x	x	x	

890-2742 Chain of Custody

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of $85.00 will be applied to each project and a charge of $5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		8.11.221527	4		
3			6		
5					

Revised Date: 08/25/2020 Rev 2020 2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2742-1
SDG Number: 03D2024079

Login Number: 2742
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2742-1
SDG Number: 03D2024079

Login Number: 2742
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 08/15/22 08:36 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2743-1
Laboratory Sample Delivery Group: 03d2024079
Client Project/Site: Windward 2H CTB

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Kalei Jennings

JKramer

Authorized for release by:
8/22/2022 9:38:18 AM

Jessica Kramer, Project Manager
(432)704-5440
Jessica.Kramer@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

Client: Ensolum
Project/Site: Windward 2H CTB

Laboratory Job ID: 890-2743-1
SDG: 03d2024079

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2743-1
SDG: 03d2024079

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2743-1
SDG: 03d2024079

Job ID: 890-2743-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2743-1

Receipt
The sample was received on 8/11/2022 3:27 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.4°C

GC VOA
Method 8021B: Surrogate recovery for the following samples were outside control limits: SS03 (890-2743-1), (CCV 880-32557/20), (CCV 880-32557/33), (CCV 880-32557/51), (LCS 880-32561/1-A), (LCSD 880-32561/2-A), (MB 880-32546/5-A), (MB 880-32561/5-A), (880-18346-A-21-D MS) and (880-18346-A-21-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (880-18346-A-21-F). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2743-1
SDG: 03d2024079

Client Sample ID: SS03

Date Collected: 08/11/22 12:10
Date Received: 08/11/22 15:27
Sample Depth: 0.5

Lab Sample ID: 890-2743-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		08/20/22 10:39	08/21/22 08:43	1
Toluene	<0.00201	U	0.00201		mg/Kg		08/20/22 10:39	08/21/22 08:43	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		08/20/22 10:39	08/21/22 08:43	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		08/20/22 10:39	08/21/22 08:43	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		08/20/22 10:39	08/21/22 08:43	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		08/20/22 10:39	08/21/22 08:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*207*	*S1+*	*70 - 130*	*08/20/22 10:39*	*08/21/22 08:43*	*1*
1,4-Difluorobenzene (Surr)	*76*		*70 - 130*	*08/20/22 10:39*	*08/21/22 08:43*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			08/22/22 10:17	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			08/16/22 09:21	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/15/22 10:43	08/15/22 19:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/15/22 10:43	08/15/22 19:07	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/15/22 10:43	08/15/22 19:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*08/15/22 10:43*	*08/15/22 19:07*	*1*
o-Terphenyl	*95*		*70 - 130*	*08/15/22 10:43*	*08/15/22 19:07*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**41.0**		5.04		mg/Kg			08/16/22 06:34	1

Surrogate Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2743-1
SDG: 03d2024079

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-18346-A-21-D MS	Matrix Spike	202 S1+	95										
880-18346-A-21-E MSD	Matrix Spike Duplicate	207 S1+	100										
890-2743-1	SS03	207 S1+	76										
LCS 880-32561/1-A	Lab Control Sample	209 S1+	99										
LCSD 880-32561/2-A	Lab Control Sample Dup	196 S1+	97										
MB 880-32546/5-A	Method Blank	137 S1+	70										
MB 880-32561/5-A	Method Blank	152 S1+	70										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-18058-A-1-B MS	Matrix Spike	92	86										
880-18058-A-1-C MSD	Matrix Spike Duplicate	92	88										
890-2743-1	SS03	90	95										
LCS 880-32158/2-A	Lab Control Sample	123	129										
LCSD 880-32158/3-A	Lab Control Sample Dup	119	123										
MB 880-32158/1-A	Method Blank	91	103										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2743-1
SDG: 03d2024079

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-32546/5-A
Matrix: Solid
Analysis Batch: 32557

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32546

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/19/22 19:05	08/20/22 13:06	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/19/22 19:05	08/20/22 13:06	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/19/22 19:05	08/20/22 13:06	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/19/22 19:05	08/20/22 13:06	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/19/22 19:05	08/20/22 13:06	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/19/22 19:05	08/20/22 13:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*137*	*S1+*	*70 - 130*	*08/19/22 19:05*	*08/20/22 13:06*	*1*
1,4-Difluorobenzene (Surr)	*70*		*70 - 130*	*08/19/22 19:05*	*08/20/22 13:06*	*1*

Lab Sample ID: MB 880-32561/5-A
Matrix: Solid
Analysis Batch: 32557

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32561

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/20/22 10:39	08/21/22 02:38	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/20/22 10:39	08/21/22 02:38	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/20/22 10:39	08/21/22 02:38	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/20/22 10:39	08/21/22 02:38	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/20/22 10:39	08/21/22 02:38	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/20/22 10:39	08/21/22 02:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*152*	*S1+*	*70 - 130*	*08/20/22 10:39*	*08/21/22 02:38*	*1*
1,4-Difluorobenzene (Surr)	*70*		*70 - 130*	*08/20/22 10:39*	*08/21/22 02:38*	*1*

Lab Sample ID: LCS 880-32561/1-A
Matrix: Solid
Analysis Batch: 32557

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32561

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1162		mg/Kg		116	70 - 130		
Toluene			0.100	0.1167		mg/Kg		117	70 - 130		
Ethylbenzene			0.100	0.1229		mg/Kg		123	70 - 130		
m-Xylene & p-Xylene			0.200	0.2462		mg/Kg		123	70 - 130		
o-Xylene			0.100	0.1247		mg/Kg		125	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*209*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 880-32561/2-A
Matrix: Solid
Analysis Batch: 32557

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32561

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1228		mg/Kg		123	70 - 130	6	35

QC Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2743-1
SDG: 03d2024079

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-32561/2-A
Matrix: Solid
Analysis Batch: 32557

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32561

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1197		mg/Kg		120	70 - 130	3	35
Ethylbenzene			0.100	0.1226		mg/Kg		123	70 - 130	0	35
m-Xylene & p-Xylene			0.200	0.2445		mg/Kg		122	70 - 130	1	35
o-Xylene			0.100	0.1236		mg/Kg		124	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*196*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: 880-18346-A-21-D MS
Matrix: Solid
Analysis Batch: 32557

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32561

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.000402	U	0.0998	0.1219		mg/Kg		122	70 - 130
Toluene	<0.000402	U	0.0998	0.1183		mg/Kg		119	70 - 130
Ethylbenzene	<0.000402	U	0.0998	0.1246		mg/Kg		125	70 - 130
m-Xylene & p-Xylene	<0.000805	U	0.200	0.2501		mg/Kg		125	70 - 130
o-Xylene	<0.000402	U	0.0998	0.1235		mg/Kg		123	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*202*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: 880-18346-A-21-E MSD
Matrix: Solid
Analysis Batch: 32557

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 32561

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.000402	U	0.100	0.1204		mg/Kg		120	70 - 130	1	35
Toluene	<0.000402	U	0.100	0.1173		mg/Kg		117	70 - 130	1	35
Ethylbenzene	<0.000402	U	0.100	0.1207		mg/Kg		120	70 - 130	3	35
m-Xylene & p-Xylene	<0.000805	U	0.200	0.2380		mg/Kg		119	70 - 130	5	35
o-Xylene	<0.000402	U	0.100	0.1215		mg/Kg		121	70 - 130	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*207*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-32158/1-A
Matrix: Solid
Analysis Batch: 32121

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32158

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/15/22 10:43	08/15/22 10:50	1

QC Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2743-1
SDG: 03d2024079

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-32158/1-A
Matrix: Solid
Analysis Batch: 32121

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32158

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/15/22 10:43	08/15/22 10:50	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/15/22 10:43	08/15/22 10:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*08/15/22 10:43*	*08/15/22 10:50*	*1*
o-Terphenyl	*103*		*70 - 130*	*08/15/22 10:43*	*08/15/22 10:50*	*1*

Lab Sample ID: LCS 880-32158/2-A
Matrix: Solid
Analysis Batch: 32121

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32158

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1127		mg/Kg		113	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1099		mg/Kg		110	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*123*		*70 - 130*
o-Terphenyl	*129*		*70 - 130*

Lab Sample ID: LCSD 880-32158/3-A
Matrix: Solid
Analysis Batch: 32121

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32158

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1094		mg/Kg		109	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	1054		mg/Kg		105	70 - 130	4	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*119*		*70 - 130*
o-Terphenyl	*123*		*70 - 130*

Lab Sample ID: 880-18058-A-1-B MS
Matrix: Solid
Analysis Batch: 32121

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32158

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1002		mg/Kg		100	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	999	874.4		mg/Kg		88	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*92*		*70 - 130*
o-Terphenyl	*86*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2743-1
SDG: 03d2024079

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-18058-A-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 32121 — **Prep Batch: 32158**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1014		mg/Kg		102	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	905.8		mg/Kg		91	70 - 130	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*92*		*70 - 130*
o-Terphenyl	*88*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-32160/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 32201

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.98	U	4.98		mg/Kg			08/16/22 02:34	1

Lab Sample ID: LCS 880-32160/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 32201

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	254.1		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-32160/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 32201

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			251	243.5		mg/Kg		97	90 - 110	4	20

Lab Sample ID: 880-18061-A-1-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 32201

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	207		250	472.1		mg/Kg		106	90 - 110		

Lab Sample ID: 880-18061-A-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 32201

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	207		250	472.9		mg/Kg		106	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2743-1
SDG: 03d2024079

GC VOA

Prep Batch: 32546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-32546/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 32557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2743-1	SS03	Total/NA	Solid	8021B	32561
MB 880-32546/5-A	Method Blank	Total/NA	Solid	8021B	32546
MB 880-32561/5-A	Method Blank	Total/NA	Solid	8021B	32561
LCS 880-32561/1-A	Lab Control Sample	Total/NA	Solid	8021B	32561
LCSD 880-32561/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	32561
880-18346-A-21-D MS	Matrix Spike	Total/NA	Solid	8021B	32561
880-18346-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	32561

Prep Batch: 32561

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2743-1	SS03	Total/NA	Solid	5035	
MB 880-32561/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-32561/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-32561/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-18346-A-21-D MS	Matrix Spike	Total/NA	Solid	5035	
880-18346-A-21-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 32622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2743-1	SS03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 32121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2743-1	SS03	Total/NA	Solid	8015B NM	32158
MB 880-32158/1-A	Method Blank	Total/NA	Solid	8015B NM	32158
LCS 880-32158/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32158
LCSD 880-32158/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32158
880-18058-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	32158
880-18058-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	32158

Prep Batch: 32158

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2743-1	SS03	Total/NA	Solid	8015NM Prep	
MB 880-32158/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32158/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32158/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-18058-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-18058-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 32210

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2743-1	SS03	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2743-1
SDG: 03d2024079

HPLC/IC

Leach Batch: 32160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2743-1	SS03	Soluble	Solid	DI Leach	
MB 880-32160/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32160/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32160/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-18061-A-1-E MS	Matrix Spike	Soluble	Solid	DI Leach	
880-18061-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 32201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2743-1	SS03	Soluble	Solid	300.0	32160
MB 880-32160/1-A	Method Blank	Soluble	Solid	300.0	32160
LCS 880-32160/2-A	Lab Control Sample	Soluble	Solid	300.0	32160
LCSD 880-32160/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32160
880-18061-A-1-E MS	Matrix Spike	Soluble	Solid	300.0	32160
880-18061-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	32160

Lab Chronicle

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2743-1
SDG: 03d2024079

Client Sample ID: SS03
Date Collected: 08/11/22 12:10
Date Received: 08/11/22 15:27

Lab Sample ID: 890-2743-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	32561	08/20/22 10:39	MR	EET MID
Total/NA	Analysis	8021B		1			32557	08/21/22 08:43	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32622	08/22/22 10:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			32210	08/16/22 09:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32158	08/15/22 10:43	DM	EET MID
Total/NA	Analysis	8015B NM		1			32121	08/15/22 19:07	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	32160	08/15/22 11:22	KS	EET MID
Soluble	Analysis	300.0		1			32201	08/16/22 06:34	CH	EET MID

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2743-1
SDG: 03d2024079

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2743-1
SDG: 03d2024079

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2743-1
SDG: 03d2024079

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2743-1	SS03	Solid	08/11/22 12:10	08/11/22 15:27	0.5

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennigns
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	kjennings@ensolum.com

Work Order Comments

Program: UST/PST ☐ **PRP** ☐ **Brownfields** ☐ **RRC** ☐ **Superfund** ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Windward 2H CTB	**Turn Around**	
Project Number:	03D2024079	☑ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:	Conner Shore	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	IR#7	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	5.6	
Total Containers:		Corrected Temperature:	5.4	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
SS03	S	08.11.22	1210	0.5'	G	1		x	x	x

890-2743 Chain of Custody

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2S0_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		8.11.22 1527	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev: 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2743-1
SDG Number: 03d2024079

Login Number: 2743
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2743-1
SDG Number: 03d2024079

Login Number: 2743
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 08/15/22 08:36 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

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ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2744-1
Laboratory Sample Delivery Group: 03D2024079
Client Project/Site: Windward 2H CTB

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Kalei Jennings

JKramer

Authorized for release by:
8/25/2022 9:48:18 AM

Jessica Kramer, Project Manager
(432)704-5440
Jessica.Kramer@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

Client: Ensolum
Project/Site: Windward 2H CTB

Laboratory Job ID: 890-2744-1
SDG: 03D2024079

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-2744-1
Project/Site: Windward 2H CTB SDG: 03D2024079

Qualifiers

GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2744-1
SDG: 03D2024079

Job ID: 890-2744-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2744-1

Receipt
The sample was received on 8/11/2022 3:27 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.4°C

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2744-1
SDG: 03D2024079

Client Sample ID: SS02

Date Collected: 08/11/22 12:05
Date Received: 08/11/22 15:27
Sample Depth: 0.5

Lab Sample ID: 890-2744-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		08/23/22 10:42	08/24/22 21:34	1
Toluene	**0.00576**		0.00201		mg/Kg		08/23/22 10:42	08/24/22 21:34	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		08/23/22 10:42	08/24/22 21:34	1
m-Xylene & p-Xylene	**0.00878**		0.00402		mg/Kg		08/23/22 10:42	08/24/22 21:34	1
o-Xylene	**0.00284**		0.00201		mg/Kg		08/23/22 10:42	08/24/22 21:34	1
Xylenes, Total	**0.0116**		0.00402		mg/Kg		08/23/22 10:42	08/24/22 21:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*08/23/22 10:42*	*08/24/22 21:34*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*08/23/22 10:42*	*08/24/22 21:34*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.0174**		0.00402		mg/Kg			08/25/22 09:42	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			08/16/22 09:21	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		08/15/22 10:43	08/15/22 19:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		08/15/22 10:43	08/15/22 19:28	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		08/15/22 10:43	08/15/22 19:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*08/15/22 10:43*	*08/15/22 19:28*	*1*
o-Terphenyl	*87*		*70 - 130*	*08/15/22 10:43*	*08/15/22 19:28*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.0**		5.02		mg/Kg			08/16/22 06:43	1

Surrogate Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2744-1
SDG: 03D2024079

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-18428-A-9-A MS	Matrix Spike	96	101										
880-18428-A-9-B MSD	Matrix Spike Duplicate	99	104										
890-2744-1	SS02	101	98										
LCS 880-32772/1-A	Lab Control Sample	105	98										
LCSD 880-32772/2-A	Lab Control Sample Dup	100	101										
MB 880-32772/5-A	Method Blank	79	118										

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-18058-A-1-B MS	Matrix Spike	92	86										
880-18058-A-1-C MSD	Matrix Spike Duplicate	92	88										
890-2744-1	SS02	80	87										
LCS 880-32158/2-A	Lab Control Sample	123	129										
LCSD 880-32158/3-A	Lab Control Sample Dup	119	123										
MB 880-32158/1-A	Method Blank	91	103										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2744-1
SDG: 03D2024079

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-32772/5-A
Matrix: Solid
Analysis Batch: 32836

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32772

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/23/22 10:42	08/24/22 14:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/23/22 10:42	08/24/22 14:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/23/22 10:42	08/24/22 14:51	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/23/22 10:42	08/24/22 14:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/23/22 10:42	08/24/22 14:51	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/23/22 10:42	08/24/22 14:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*	*08/23/22 10:42*	*08/24/22 14:51*	*1*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*	*08/23/22 10:42*	*08/24/22 14:51*	*1*

Lab Sample ID: LCS 880-32772/1-A
Matrix: Solid
Analysis Batch: 32836

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32772

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09872		mg/Kg		99	70 - 130		
Toluene			0.100	0.1103		mg/Kg		110	70 - 130		
Ethylbenzene			0.100	0.1125		mg/Kg		113	70 - 130		
m-Xylene & p-Xylene			0.200	0.2113		mg/Kg		106	70 - 130		
o-Xylene			0.100	0.1122		mg/Kg		112	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 880-32772/2-A
Matrix: Solid
Analysis Batch: 32836

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32772

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09581		mg/Kg		96	70 - 130	3	35
Toluene			0.100	0.1040		mg/Kg		104	70 - 130	6	35
Ethylbenzene			0.100	0.1058		mg/Kg		106	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.1977		mg/Kg		99	70 - 130	7	35
o-Xylene			0.100	0.1052		mg/Kg		105	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 880-18428-A-9-A MS
Matrix: Solid
Analysis Batch: 32836

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32772

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00202	U	0.0998	0.08869		mg/Kg		89	70 - 130		
Toluene	<0.00202	U	0.0998	0.09107		mg/Kg		91	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2744-1
SDG: 03D2024079

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-18428-A-9-A MS
Matrix: Solid
Analysis Batch: 32836

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32772

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U	0.0998	0.08911		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	<0.00404	U	0.200	0.1640		mg/Kg		82	70 - 130
o-Xylene	<0.00202	U	0.0998	0.08683		mg/Kg		87	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 880-18428-A-9-B MSD
Matrix: Solid
Analysis Batch: 32836

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 32772

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.100	0.09044		mg/Kg		90	70 - 130	2	35
Toluene	<0.00202	U	0.100	0.09690		mg/Kg		97	70 - 130	6	35
Ethylbenzene	<0.00202	U	0.100	0.09457		mg/Kg		94	70 - 130	6	35
m-Xylene & p-Xylene	<0.00404	U	0.201	0.1709		mg/Kg		85	70 - 130	4	35
o-Xylene	<0.00202	U	0.100	0.09105		mg/Kg		91	70 - 130	5	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-32158/1-A
Matrix: Solid
Analysis Batch: 32121

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32158

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/15/22 10:43	08/15/22 10:50	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/15/22 10:43	08/15/22 10:50	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/15/22 10:43	08/15/22 10:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*08/15/22 10:43*	*08/15/22 10:50*	*1*
o-Terphenyl	*103*		*70 - 130*	*08/15/22 10:43*	*08/15/22 10:50*	*1*

Lab Sample ID: LCS 880-32158/2-A
Matrix: Solid
Analysis Batch: 32121

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32158

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1127		mg/Kg		113	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1099		mg/Kg		110	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2744-1
SDG: 03D2024079

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-32158/2-A
Matrix: Solid
Analysis Batch: 32121

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32158

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	123		70 - 130
o-Terphenyl	129		70 - 130

Lab Sample ID: LCSD 880-32158/3-A
Matrix: Solid
Analysis Batch: 32121

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32158

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1094		mg/Kg		109	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	1054		mg/Kg		105	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	119		70 - 130
o-Terphenyl	123		70 - 130

Lab Sample ID: 880-18058-A-1-B MS
Matrix: Solid
Analysis Batch: 32121

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32158

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1002		mg/Kg		100	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	999	874.4		mg/Kg		88	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	86		70 - 130

Lab Sample ID: 880-18058-A-1-C MSD
Matrix: Solid
Analysis Batch: 32121

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 32158

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1014		mg/Kg		102	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	905.8		mg/Kg		91	70 - 130	4	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	88		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2744-1
SDG: 03D2024079

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-32160/1-A
Matrix: Solid
Analysis Batch: 32201

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.98	U	4.98		mg/Kg			08/16/22 02:34	1

Lab Sample ID: LCS 880-32160/2-A
Matrix: Solid
Analysis Batch: 32201

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	254.1		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-32160/3-A
Matrix: Solid
Analysis Batch: 32201

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			251	243.5		mg/Kg		97	90 - 110	4	20

Lab Sample ID: 880-18061-A-1-E MS
Matrix: Solid
Analysis Batch: 32201

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	207		250	472.1		mg/Kg		106	90 - 110		

Lab Sample ID: 880-18061-A-1-F MSD
Matrix: Solid
Analysis Batch: 32201

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	207		250	472.9		mg/Kg		106	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2744-1
SDG: 03D2024079

GC VOA

Prep Batch: 32772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2744-1	SS02	Total/NA	Solid	5035	
MB 880-32772/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-32772/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-32772/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-18428-A-9-A MS	Matrix Spike	Total/NA	Solid	5035	
880-18428-A-9-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 32836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2744-1	SS02	Total/NA	Solid	8021B	32772
MB 880-32772/5-A	Method Blank	Total/NA	Solid	8021B	32772
LCS 880-32772/1-A	Lab Control Sample	Total/NA	Solid	8021B	32772
LCSD 880-32772/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	32772
880-18428-A-9-A MS	Matrix Spike	Total/NA	Solid	8021B	32772
880-18428-A-9-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	32772

Analysis Batch: 32913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2744-1	SS02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 32121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2744-1	SS02	Total/NA	Solid	8015B NM	32158
MB 880-32158/1-A	Method Blank	Total/NA	Solid	8015B NM	32158
LCS 880-32158/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32158
LCSD 880-32158/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32158
880-18058-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	32158
880-18058-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	32158

Prep Batch: 32158

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2744-1	SS02	Total/NA	Solid	8015NM Prep	
MB 880-32158/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32158/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32158/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-18058-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-18058-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 32211

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2744-1	SS02	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 32160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2744-1	SS02	Soluble	Solid	DI Leach	
MB 880-32160/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32160/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32160/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2744-1
SDG: 03D2024079

HPLC/IC (Continued)

Leach Batch: 32160 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-18061-A-1-E MS	Matrix Spike	Soluble	Solid	DI Leach	
880-18061-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 32201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2744-1	SS02	Soluble	Solid	300.0	32160
MB 880-32160/1-A	Method Blank	Soluble	Solid	300.0	32160
LCS 880-32160/2-A	Lab Control Sample	Soluble	Solid	300.0	32160
LCSD 880-32160/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32160
880-18061-A-1-E MS	Matrix Spike	Soluble	Solid	300.0	32160
880-18061-A-1-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	32160

Lab Chronicle

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2744-1
SDG: 03D2024079

Client Sample ID: SS02

Date Collected: 08/11/22 12:05
Date Received: 08/11/22 15:27

Lab Sample ID: 890-2744-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	32772	08/23/22 10:42	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	32836	08/24/22 21:34	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32913	08/25/22 09:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			32211	08/16/22 09:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	32158	08/15/22 10:43	DM	EET MID
Total/NA	Analysis	8015B NM		1			32121	08/15/22 19:28	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	32160	08/15/22 11:22	KS	EET MID
Soluble	Analysis	300.0		1			32201	08/16/22 06:43	CH	EET MID

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2744-1
SDG: 03D2024079

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2744-1
SDG: 03D2024079

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2744-1
SDG: 03D2024079

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2744-1	SS02	Solid	08/11/22 12:05	08/11/22 15:27	0.5

Chain of Custody

eurofins | Environment Testing Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennigns
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	kjennings@ensolum.com

Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Windward 2H CTB	Turn Around	☑ Routine ☐ Rush
Project Number:	03D2024079	Due Date:	
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Conner Shore		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TNM_007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	5.6
Total Containers:		Corrected Temperature:	5.4

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021
SS02	S	08.11.22	1205	0.5'	G	1		x	x	x

ANALYSIS REQUEST / Parameters

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		8.11.22 1502			
3			4		
5			6		

Revised Date 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2744-1
SDG Number: 03D2024079

Login Number: 2744
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2744-1
SDG Number: 03D2024079

Login Number: 2744
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 08/15/22 08:36 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2745-1
Laboratory Sample Delivery Group: 03D2024079
Client Project/Site: Windward 2H CTB

For:
Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Kalei Jennings

JKramer

Authorized for release by:
8/25/2022 3:18:00 PM

Jessica Kramer, Project Manager
(432)704-5440
Jessica.Kramer@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

Client: Ensolum
Project/Site: Windward 2H CTB

Laboratory Job ID: 890-2745-1
SDG: 03D2024079

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2745-1
SDG: 03D2024079

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2745-1
SDG: 03D2024079

Job ID: 890-2745-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2745-1

Receipt
The sample was received on 8/11/2022 3:27 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.4°C

GC VOA
Method 8021B: Surrogate recovery for the following sample was outside control limits: SS01 (890-2745-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-32568 and analytical batch 880-32832 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-32339 and analytical batch 880-32436 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2745-1
SDG: 03D2024079

Client Sample ID: SS01

Date Collected: 08/11/22 12:00
Date Received: 08/11/22 15:27
Sample Depth: 0.5

Lab Sample ID: 890-2745-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.401	U	0.401		mg/Kg		08/20/22 15:24	08/25/22 14:26	200
Toluene	**32.6**		0.401		mg/Kg		08/20/22 15:24	08/25/22 14:26	200
Ethylbenzene	**17.7**		0.401		mg/Kg		08/20/22 15:24	08/25/22 14:26	200
m-Xylene & p-Xylene	**70.8**		0.802		mg/Kg		08/20/22 15:24	08/25/22 14:26	200
o-Xylene	**27.3**		0.401		mg/Kg		08/20/22 15:24	08/25/22 14:26	200
Xylenes, Total	**98.1**		0.802		mg/Kg		08/20/22 15:24	08/25/22 14:26	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*193*	*S1+*	*70 - 130*	*08/20/22 15:24*	*08/25/22 14:26*	*200*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*08/20/22 15:24*	*08/25/22 14:26*	*200*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**148**		0.802		mg/Kg			08/25/22 14:47	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**13700**		249		mg/Kg			08/16/22 09:21	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**3070**		249		mg/Kg		08/15/22 10:43	08/16/22 07:42	5
Diesel Range Organics (Over C10-C28)	**8910**		249		mg/Kg		08/15/22 10:43	08/16/22 07:42	5
Oil Range Organics (Over C28-C36)	**1730**		249		mg/Kg		08/15/22 10:43	08/16/22 07:42	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*118*		*70 - 130*	*08/15/22 10:43*	*08/16/22 07:42*	*5*
o-Terphenyl	*82*		*70 - 130*	*08/15/22 10:43*	*08/16/22 07:42*	*5*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**109**		5.00		mg/Kg			08/19/22 01:26	1

Surrogate Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2745-1
SDG: 03D2024079

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2745-1	SS01	193 S1+	102
890-2750-A-1-H MS	Matrix Spike	119	99
890-2750-A-1-I MSD	Matrix Spike Duplicate	88	90
LCS 880-32568/1-A	Lab Control Sample	114	118
LCSD 880-32568/2-A	Lab Control Sample Dup	130	103
MB 880-32568/5-A	Method Blank	101	90

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-18058-A-1-B MS	Matrix Spike	92	86
880-18058-A-1-C MSD	Matrix Spike Duplicate	92	88
890-2745-1	SS01	118	82
LCS 880-32158/2-A	Lab Control Sample	123	129
LCSD 880-32158/3-A	Lab Control Sample Dup	119	123
MB 880-32158/1-A	Method Blank	91	103

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2745-1
SDG: 03D2024079

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-32568/5-A
Matrix: Solid
Analysis Batch: 32832

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32568

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/20/22 15:24	08/25/22 10:47	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/20/22 15:24	08/25/22 10:47	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/20/22 15:24	08/25/22 10:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/20/22 15:24	08/25/22 10:47	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/20/22 15:24	08/25/22 10:47	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/20/22 15:24	08/25/22 10:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*08/20/22 15:24*	*08/25/22 10:47*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*08/20/22 15:24*	*08/25/22 10:47*	*1*

Lab Sample ID: LCS 880-32568/1-A
Matrix: Solid
Analysis Batch: 32832

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32568

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08421		mg/Kg		84	70 - 130		
Toluene			0.100	0.08069		mg/Kg		81	70 - 130		
Ethylbenzene			0.100	0.08760		mg/Kg		88	70 - 130		
m-Xylene & p-Xylene			0.200	0.1782		mg/Kg		89	70 - 130		
o-Xylene			0.100	0.1040		mg/Kg		104	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*

Lab Sample ID: LCSD 880-32568/2-A
Matrix: Solid
Analysis Batch: 32832

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32568

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09160		mg/Kg		92	70 - 130	8	35
Toluene			0.100	0.09082		mg/Kg		91	70 - 130	12	35
Ethylbenzene			0.100	0.1003		mg/Kg		100	70 - 130	13	35
m-Xylene & p-Xylene			0.200	0.2090		mg/Kg		105	70 - 130	16	35
o-Xylene			0.100	0.1219		mg/Kg		122	70 - 130	16	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*130*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-2750-A-1-H MS
Matrix: Solid
Analysis Batch: 32832

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32568

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U F1 F2	0.0998	0.05443	F1	mg/Kg		55	70 - 130		
Toluene	<0.00201	U F1 F2	0.0998	0.05913	F1	mg/Kg		59	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2745-1
SDG: 03D2024079

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-2750-A-1-H MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 32832 — **Prep Batch: 32568**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U F1 F2	0.0998	0.06688	F1	mg/Kg		67	70 - 130
m-Xylene & p-Xylene	<0.00402	U F1 F2	0.200	0.1288	F1	mg/Kg		65	70 - 130
o-Xylene	<0.00201	U F1 F2	0.0998	0.07445		mg/Kg		75	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*119*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 890-2750-A-1-I MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 32832 — **Prep Batch: 32568**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F1 F2	0.0994	0.01901	F1 F2	mg/Kg		19	70 - 130	96	35
Toluene	<0.00201	U F1 F2	0.0994	0.02694	F1 F2	mg/Kg		27	70 - 130	75	35
Ethylbenzene	<0.00201	U F1 F2	0.0994	0.02636	F1 F2	mg/Kg		27	70 - 130	87	35
m-Xylene & p-Xylene	<0.00402	U F1 F2	0.199	0.04893	F1 F2	mg/Kg		25	70 - 130	90	35
o-Xylene	<0.00201	U F1 F2	0.0994	0.03111	F1 F2	mg/Kg		31	70 - 130	82	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-32158/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 32121 — **Prep Batch: 32158**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		08/15/22 10:43	08/15/22 10:50	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		08/15/22 10:43	08/15/22 10:50	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		08/15/22 10:43	08/15/22 10:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*08/15/22 10:43*	*08/15/22 10:50*	*1*
o-Terphenyl	*103*		*70 - 130*	*08/15/22 10:43*	*08/15/22 10:50*	*1*

Lab Sample ID: LCS 880-32158/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 32121 — **Prep Batch: 32158**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1127		mg/Kg		113	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1099		mg/Kg		110	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2745-1
SDG: 03D2024079

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-32158/2-A
Matrix: Solid
Analysis Batch: 32121

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32158

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	123		70 - 130
o-Terphenyl	129		70 - 130

Lab Sample ID: LCSD 880-32158/3-A
Matrix: Solid
Analysis Batch: 32121

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32158

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1094		mg/Kg		109	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	1054		mg/Kg		105	70 - 130	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	119		70 - 130
o-Terphenyl	123		70 - 130

Lab Sample ID: 880-18058-A-1-B MS
Matrix: Solid
Analysis Batch: 32121

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32158

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1002		mg/Kg		100	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	999	874.4		mg/Kg		88	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	86		70 - 130

Lab Sample ID: 880-18058-A-1-C MSD
Matrix: Solid
Analysis Batch: 32121

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 32158

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1014		mg/Kg		102	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	905.8		mg/Kg		91	70 - 130	4	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	88		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2745-1
SDG: 03D2024079

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-32339/1-A
Matrix: Solid
Analysis Batch: 32436

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			08/18/22 22:22	1

Lab Sample ID: LCS 880-32339/2-A
Matrix: Solid
Analysis Batch: 32436

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	244.2		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-32339/3-A
Matrix: Solid
Analysis Batch: 32436

Client Sample ID: Lab Control Sample Dup
Prep Type: Soluble

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	243.2		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 880-17981-A-1-C MS
Matrix: Solid
Analysis Batch: 32436

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	855	F1	248	1192	F1	mg/Kg		136	90 - 110		

Lab Sample ID: 880-17981-A-1-D MSD
Matrix: Solid
Analysis Batch: 32436

Client Sample ID: Matrix Spike Duplicate
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	855	F1	248	1138	F1	mg/Kg		114	90 - 110	5	20

QC Association Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2745-1
SDG: 03D2024079

GC VOA

Prep Batch: 32568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2745-1	SS01	Total/NA	Solid	5035	
MB 880-32568/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-32568/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-32568/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2750-A-1-H MS	Matrix Spike	Total/NA	Solid	5035	
890-2750-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 32832

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2745-1	SS01	Total/NA	Solid	8021B	32568
MB 880-32568/5-A	Method Blank	Total/NA	Solid	8021B	32568
LCS 880-32568/1-A	Lab Control Sample	Total/NA	Solid	8021B	32568
LCSD 880-32568/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	32568
890-2750-A-1-H MS	Matrix Spike	Total/NA	Solid	8021B	32568
890-2750-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	32568

Analysis Batch: 32989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2745-1	SS01	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 32121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2745-1	SS01	Total/NA	Solid	8015B NM	32158
MB 880-32158/1-A	Method Blank	Total/NA	Solid	8015B NM	32158
LCS 880-32158/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32158
LCSD 880-32158/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32158
880-18058-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	32158
880-18058-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	32158

Prep Batch: 32158

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2745-1	SS01	Total/NA	Solid	8015NM Prep	
MB 880-32158/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32158/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32158/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-18058-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-18058-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 32215

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2745-1	SS01	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 32339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2745-1	SS01	Soluble	Solid	DI Leach	
MB 880-32339/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32339/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32339/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2745-1
SDG: 03D2024079

HPLC/IC (Continued)

Leach Batch: 32339 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-17981-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-17981-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 32436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2745-1	SS01	Soluble	Solid	300.0	32339
MB 880-32339/1-A	Method Blank	Soluble	Solid	300.0	32339
LCS 880-32339/2-A	Lab Control Sample	Soluble	Solid	300.0	32339
LCSD 880-32339/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32339
880-17981-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	32339
880-17981-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	32339

Lab Chronicle

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2745-1
SDG: 03D2024079

Client Sample ID: SS01

Date Collected: 08/11/22 12:00
Date Received: 08/11/22 15:27

Lab Sample ID: 890-2745-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	32568	08/20/22 15:24	MR	EET MID
Total/NA	Analysis	8021B		200	5 mL	5 mL	32832	08/25/22 14:26	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32989	08/25/22 14:47	SM	EET MID
Total/NA	Analysis	8015 NM		1			32215	08/16/22 09:21	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	32158	08/15/22 10:43	DM	EET MID
Total/NA	Analysis	8015B NM		5			32121	08/16/22 07:42	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	32339	08/17/22 09:34	CH	EET MID
Soluble	Analysis	300.0		1			32436	08/19/22 01:26	CH	EET MID

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2745-1
SDG: 03D2024079

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2745-1
SDG: 03D2024079

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2745-1
SDG: 03D2024079

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2745-1	SS01	Solid	08/11/22 12:00	08/11/22 15:27	0.5

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Kalei Jennings	Bill to: (if different)	Kalei Jennigns
Company Name:	Ensolum, LLC	Company Name:	Ensolum, LLC
Address:	601 N Marienfeld St Suite 400	Address:	601 N Marienfeld St Suite 400
City, State ZIP:	Midland, TX 79701	City, State ZIP:	Midland, TX 79701
Phone:	817-683-2503	Email:	kjennings@ensolum.com

Work Order Comments

Program: UST/PST ☐ **PRP** ☐ **Brownfields** ☐ **RRC** ☐ **Superfund** ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Windward 2H CTB	**Turn Around**	Pres. Code
Project Number:	03D2024079	☑ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:	Conner Shore	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT	Temp Blank: Yes No	Wet Ice: Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	TMH-007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	5.6
Total Containers:		Corrected Temperature:	5.4

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
SS01	S	08.11.22	1200	0.5'	G	1	x	x	x

890-2745 Chain of Custody

Preservative Codes

None: NO	DI Water: H_2O
Cool: Cool	MeOH: Me
HCL: HC	HNO_3: HN
H_2S0_4: H_2	NaOH: Na
H_3PO_4: HP	
$NaHSO_4$: NABIS	
$Na_2S_2O_3$: $NaSO_3$	
Zn Acetate+NaOH: Zn	
NaOH+Ascorbic Acid: SAPC	

Sample Comments

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		8.11.22 1527	4		
3			6		
5					

Revised Date: 08/25/2020 Rev: 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2745-1
SDG Number: 03D2024079

Login Number: 2745
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2745-1
SDG Number: 03D2024079

Login Number: 2745
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 08/15/22 08:36 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	N/A	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	

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ANALYTICAL REPORT

Eurofins Carlsbad
1089 N Canal St.
Carlsbad, NM 88220
Tel: (575)988-3199

Laboratory Job ID: 890-2913-1
Laboratory Sample Delivery Group: Lea County NM
Client Project/Site: Windward 2H CTB

For:
Ensolum
2351 W. Northwest Hwy
Suite 1203
Dallas, Texas 75220

Attn: Joe Gable

JKramer

Authorized for release by:
9/21/2022 5:14:33 PM

Jessica Kramer, Project Manager
(432)704-5440
Jessica.Kramer@et.eurofinsus.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

Client: Ensolum
Project/Site: Windward 2H CTB

Laboratory Job ID: 890-2913-1
SDG: Lea County NM

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-2913-1
Project/Site: Windward 2H CTB SDG: Lea County NM

Qualifiers

GC VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2913-1
SDG: Lea County NM

Job ID: 890-2913-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2913-1

Receipt
The samples were received on 9/9/2022 9:22 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.2°C

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-34858 and analytical batch 880-34895 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (LCS 880-34181/2-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-34181 and analytical batch 880-34171 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-34181 and analytical batch 880-34171 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2913-1
SDG: Lea County NM

Client Sample ID: BH01

Lab Sample ID: 890-2913-1
Matrix: Solid
Date Collected: 09/08/22 12:00
Date Received: 09/09/22 09:22
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		09/19/22 15:06	09/21/22 13:20	1
Toluene	<0.00201	U	0.00201		mg/Kg		09/19/22 15:06	09/21/22 13:20	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		09/19/22 15:06	09/21/22 13:20	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		09/19/22 15:06	09/21/22 13:20	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		09/19/22 15:06	09/21/22 13:20	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		09/19/22 15:06	09/21/22 13:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*	*09/19/22 15:06*	*09/21/22 13:20*	*1*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*	*09/19/22 15:06*	*09/21/22 13:20*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			09/21/22 15:17	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**212**		49.9		mg/Kg			09/13/22 10:25	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		09/12/22 08:48	09/12/22 14:36	1
Diesel Range Organics (Over C10-C28)	**80.5**		49.9		mg/Kg		09/12/22 08:48	09/12/22 14:36	1
Oil Range Organics (Over C28-C36)	**131**		49.9		mg/Kg		09/12/22 08:48	09/12/22 14:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*09/12/22 08:48*	*09/12/22 14:36*	*1*
o-Terphenyl	*83*		*70 - 130*	*09/12/22 08:48*	*09/12/22 14:36*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**22.1**		4.99		mg/Kg			09/14/22 22:47	1

Client Sample ID: BH01

Lab Sample ID: 890-2913-2
Matrix: Solid
Date Collected: 09/08/22 12:10
Date Received: 09/09/22 09:22
Sample Depth: 2

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/19/22 15:06	09/21/22 13:40	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/19/22 15:06	09/21/22 13:40	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/19/22 15:06	09/21/22 13:40	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		09/19/22 15:06	09/21/22 13:40	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/19/22 15:06	09/21/22 13:40	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		09/19/22 15:06	09/21/22 13:40	1

Client Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2913-1
SDG: Lea County NM

Client Sample ID: BH01

Date Collected: 09/08/22 12:10
Date Received: 09/09/22 09:22
Sample Depth: 2

Lab Sample ID: 890-2913-2

Matrix: Solid

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*86*		*70 - 130*	*09/19/22 15:06*	*09/21/22 13:40*	*1*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*	*09/19/22 15:06*	*09/21/22 13:40*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			09/21/22 15:17	1

Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**95.0**		49.8		mg/Kg			09/13/22 10:25	1

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U *1	49.8		mg/Kg		09/12/22 08:48	09/12/22 14:57	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		09/12/22 08:48	09/12/22 14:57	1
Oil Range Organics (Over C28-C36)	**95.0**		49.8		mg/Kg		09/12/22 08:48	09/12/22 14:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*85*		*70 - 130*	*09/12/22 08:48*	*09/12/22 14:57*	*1*
o-Terphenyl	*87*		*70 - 130*	*09/12/22 08:48*	*09/12/22 14:57*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**25.3**		5.02		mg/Kg			09/14/22 23:01	1

Surrogate Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2913-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-19019-A-1-E MS	Matrix Spike	117	114
880-19019-A-1-F MSD	Matrix Spike Duplicate	92	112
890-2913-1	BH01	91	112
890-2913-2	BH01	86	111
LCS 880-34858/1-A	Lab Control Sample	91	102
LCSD 880-34858/2-A	Lab Control Sample Dup	94	103
MB 880-34692/5-A	Method Blank	102	116
MB 880-34858/5-A	Method Blank	104	116

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)
DFBZ = 1,4-Difluorobenzene (Surr)

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2907-A-1-C MS	Matrix Spike	98	93
890-2907-A-1-D MSD	Matrix Spike Duplicate	99	93
890-2913-1	BH01	81	83
890-2913-2	BH01	85	87
LCS 880-34181/2-A	Lab Control Sample	144 S1+	151 S1+
LCSD 880-34181/3-A	Lab Control Sample Dup	122	130
MB 880-34181/1-A	Method Blank	105	109

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2913-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-34692/5-A
Matrix: Solid
Analysis Batch: 34895

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34692

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/16/22 16:15	09/20/22 17:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/16/22 16:15	09/20/22 17:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/16/22 16:15	09/20/22 17:37	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/16/22 16:15	09/20/22 17:37	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/16/22 16:15	09/20/22 17:37	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/16/22 16:15	09/20/22 17:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*09/16/22 16:15*	*09/20/22 17:37*	*1*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*09/16/22 16:15*	*09/20/22 17:37*	*1*

Lab Sample ID: MB 880-34858/5-A
Matrix: Solid
Analysis Batch: 34895

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34858

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		09/19/22 15:06	09/21/22 05:13	1
Toluene	<0.00200	U	0.00200		mg/Kg		09/19/22 15:06	09/21/22 05:13	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		09/19/22 15:06	09/21/22 05:13	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		09/19/22 15:06	09/21/22 05:13	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		09/19/22 15:06	09/21/22 05:13	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		09/19/22 15:06	09/21/22 05:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*09/19/22 15:06*	*09/21/22 05:13*	*1*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*09/19/22 15:06*	*09/21/22 05:13*	*1*

Lab Sample ID: LCS 880-34858/1-A
Matrix: Solid
Analysis Batch: 34895

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34858

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09802		mg/Kg		98	70 - 130		
Toluene			0.100	0.08583		mg/Kg		86	70 - 130		
Ethylbenzene			0.100	0.08534		mg/Kg		85	70 - 130		
m-Xylene & p-Xylene			0.200	0.1780		mg/Kg		89	70 - 130		
o-Xylene			0.100	0.08903		mg/Kg		89	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*70 - 130*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*

Lab Sample ID: LCSD 880-34858/2-A
Matrix: Solid
Analysis Batch: 34895

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 34858

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09393		mg/Kg		94	70 - 130	4	35

QC Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2913-1
SDG: Lea County NM

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-34858/2-A
Matrix: Solid
Analysis Batch: 34895

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 34858

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.08451		mg/Kg		85	70 - 130	2	35
Ethylbenzene			0.100	0.08316		mg/Kg		83	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1731		mg/Kg		87	70 - 130	3	35
o-Xylene			0.100	0.08797		mg/Kg		88	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 880-19019-A-1-E MS
Matrix: Solid
Analysis Batch: 34895

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 34858

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U F2 F1	0.0998	0.04876	F1	mg/Kg		49	70 - 130
Toluene	<0.00201	U F2 F1	0.0998	0.04594	F1	mg/Kg		46	70 - 130
Ethylbenzene	<0.00201	U F2 F1	0.0998	0.04536	F1	mg/Kg		45	70 - 130
m-Xylene & p-Xylene	<0.00402	U F2 F1	0.200	0.09537	F1	mg/Kg		48	70 - 130
o-Xylene	<0.00201	U F2 F1	0.0998	0.05511	F1	mg/Kg		55	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*

Lab Sample ID: 880-19019-A-1-F MSD
Matrix: Solid
Analysis Batch: 34895

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 34858

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U F2 F1	0.0990	0.1026	F2	mg/Kg		104	70 - 130	71	35
Toluene	<0.00201	U F2 F1	0.0990	0.08240	F2	mg/Kg		83	70 - 130	57	35
Ethylbenzene	<0.00201	U F2 F1	0.0990	0.07768	F2	mg/Kg		78	70 - 130	53	35
m-Xylene & p-Xylene	<0.00402	U F2 F1	0.198	0.1614	F2	mg/Kg		82	70 - 130	51	35
o-Xylene	<0.00201	U F2 F1	0.0990	0.08266	F2	mg/Kg		83	70 - 130	40	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-34181/1-A
Matrix: Solid
Analysis Batch: 34171

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34181

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		09/12/22 08:48	09/12/22 10:56	1

QC Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2913-1
SDG: Lea County NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-34181/1-A
Matrix: Solid
Analysis Batch: 34171

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 34181

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		09/12/22 08:48	09/12/22 10:56	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		09/12/22 08:48	09/12/22 10:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*105*		*70 - 130*	*09/12/22 08:48*	*09/12/22 10:56*	*1*
o-Terphenyl	*109*		*70 - 130*	*09/12/22 08:48*	*09/12/22 10:56*	*1*

Lab Sample ID: LCS 880-34181/2-A
Matrix: Solid
Analysis Batch: 34171

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 34181

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	984.6		mg/Kg		98	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1000		mg/Kg		100	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*144*	*S1+*	*70 - 130*
o-Terphenyl	*151*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-34181/3-A
Matrix: Solid
Analysis Batch: 34171

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 34181

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	765.3	*1	mg/Kg		77	70 - 130	25	20
Diesel Range Organics (Over C10-C28)			1000	859.3		mg/Kg		86	70 - 130	15	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*122*		*70 - 130*
o-Terphenyl	*130*		*70 - 130*

Lab Sample ID: 890-2907-A-1-C MS
Matrix: Solid
Analysis Batch: 34171

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 34181

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.8	U F1 *1	998	611.1	F1	mg/Kg		59	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.8	U	998	859.4		mg/Kg		83	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*98*		*70 - 130*
o-Terphenyl	*93*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2913-1
SDG: Lea County NM

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-2907-A-1-D MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 34171 — **Prep Batch: 34181**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U F1 *1	995	585.4	F1	mg/Kg		57	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	<49.8	U	995	865.7		mg/Kg		84	70 - 130	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*99*		*70 - 130*
o-Terphenyl	*93*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-34288/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 34499

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			09/14/22 22:32	1

Lab Sample ID: LCS 880-34288/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 34499

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	241.4		mg/Kg		97	90 - 110		

Lab Sample ID: LCSD 880-34288/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 34499

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	242.0		mg/Kg		97	90 - 110	0	20

Lab Sample ID: 890-2913-1 MS — **Client Sample ID: BH01**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 34499

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	22.1		250	276.5		mg/Kg		102	90 - 110		

Lab Sample ID: 890-2913-1 MSD — **Client Sample ID: BH01**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 34499

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	22.1		250	277.5		mg/Kg		102	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2913-1
SDG: Lea County NM

GC VOA

Prep Batch: 34692

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-34692/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 34858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2913-1	BH01	Total/NA	Solid	5035	
890-2913-2	BH01	Total/NA	Solid	5035	
MB 880-34858/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-34858/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-34858/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-19019-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
880-19019-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 34895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2913-1	BH01	Total/NA	Solid	8021B	34858
890-2913-2	BH01	Total/NA	Solid	8021B	34858
MB 880-34692/5-A	Method Blank	Total/NA	Solid	8021B	34692
MB 880-34858/5-A	Method Blank	Total/NA	Solid	8021B	34858
LCS 880-34858/1-A	Lab Control Sample	Total/NA	Solid	8021B	34858
LCSD 880-34858/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	34858
880-19019-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	34858
880-19019-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	34858

Analysis Batch: 35090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2913-1	BH01	Total/NA	Solid	Total BTEX	
890-2913-2	BH01	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 34171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2913-1	BH01	Total/NA	Solid	8015B NM	34181
890-2913-2	BH01	Total/NA	Solid	8015B NM	34181
MB 880-34181/1-A	Method Blank	Total/NA	Solid	8015B NM	34181
LCS 880-34181/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	34181
LCSD 880-34181/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	34181
890-2907-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	34181
890-2907-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	34181

Prep Batch: 34181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2913-1	BH01	Total/NA	Solid	8015NM Prep	
890-2913-2	BH01	Total/NA	Solid	8015NM Prep	
MB 880-34181/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-34181/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-34181/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2907-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2907-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2913-1
SDG: Lea County NM

GC Semi VOA

Analysis Batch: 34379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2913-1	BH01	Total/NA	Solid	8015 NM	
890-2913-2	BH01	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 34288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2913-1	BH01	Soluble	Solid	DI Leach	
890-2913-2	BH01	Soluble	Solid	DI Leach	
MB 880-34288/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-34288/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-34288/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2913-1 MS	BH01	Soluble	Solid	DI Leach	
890-2913-1 MSD	BH01	Soluble	Solid	DI Leach	

Analysis Batch: 34499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2913-1	BH01	Soluble	Solid	300.0	34288
890-2913-2	BH01	Soluble	Solid	300.0	34288
MB 880-34288/1-A	Method Blank	Soluble	Solid	300.0	34288
LCS 880-34288/2-A	Lab Control Sample	Soluble	Solid	300.0	34288
LCSD 880-34288/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	34288
890-2913-1 MS	BH01	Soluble	Solid	300.0	34288
890-2913-1 MSD	BH01	Soluble	Solid	300.0	34288

Lab Chronicle

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2913-1
SDG: Lea County NM

Client Sample ID: BH01
Date Collected: 09/08/22 12:00
Date Received: 09/09/22 09:22

Lab Sample ID: 890-2913-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	34858	09/19/22 15:06	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34895	09/21/22 13:20	MR	EET MID
Total/NA	Analysis	Total BTEX		1			35090	09/21/22 15:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			34379	09/13/22 10:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	34181	09/12/22 08:48	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34171	09/12/22 14:36	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	34288	09/12/22 11:50	KS	EET MID
Soluble	Analysis	300.0		1			34499	09/14/22 22:47	CH	EET MID

Client Sample ID: BH01
Date Collected: 09/08/22 12:10
Date Received: 09/09/22 09:22

Lab Sample ID: 890-2913-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	34858	09/19/22 15:06	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	34895	09/21/22 13:40	MR	EET MID
Total/NA	Analysis	Total BTEX		1			35090	09/21/22 15:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			34379	09/13/22 10:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	34181	09/12/22 08:48	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	34171	09/12/22 14:57	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	34288	09/12/22 11:50	KS	EET MID
Soluble	Analysis	300.0		1			34499	09/14/22 23:01	CH	EET MID

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2913-1
SDG: Lea County NM

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2913-1
SDG: Lea County NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Ensolum
Project/Site: Windward 2H CTB

Job ID: 890-2913-1
SDG: Lea County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2913-1	BH01	Solid	09/08/22 12:00	09/09/22 09:22	1
890-2913-2	BH01	Solid	09/08/22 12:10	09/09/22 09:22	2

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Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	Joe Gable	Bill to: (if different)	Joe Gable
Company Name:	Ensolum	Company Name:	Ensolum
Address:	3122 National Parks Hwy.	Address:	3122 National Parks Hwy.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	903-386-8073	Email:	jgable@ensolum.com

Work Order Comments
Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	Windward 2H CTB	Turn Around	
Project Number:	03D2024079	☑ Routine ☐ Rush	
Project Location:	Lea County, NM	Due Date:	5 Day TAT
Sampler's Name:	Liz Cheli	TAT starts the day received by the lab, if received by 4:30pm	
PO #:	N/A		

SAMPLE RECEIPT				
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No	
Samples Received Intact:	(Yes) No	Thermometer ID:	Thermo9	
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	1.4	
Total Containers:		Corrected Temperature:	1.2	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021
BH01	S	9/9/2022	1200	1'	Grab/	1		x	x	x
BH01	S	9/9/2022	1210	2'	Grab/	1		x	x	x

Parameters

890-2913 Chain of Custody

Preservative Codes
None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2S0_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Comments
Incident ID: NAPP2222347197

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		9.9.22 9:22	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2913-1
SDG Number: Lea County NM

Login Number: 2913
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2913-1
SDG Number: Lea County NM

Login Number: 2913
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 09/12/22 09:08 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

ENSOLUM

APPENDIX F

Final C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # *(assigned by OCD)*
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# *(if applicable)*

Unit Letter	Section	Township	Range	County

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release		

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☐ The source of the release has been stopped.
☐ The impacted area has been secured to protect human health and the environment.
☐ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☐ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name _____ Title: _____

Signature: __ _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

L48 Spill Volume Estimate Form

Facility Name & Number:	WINDWARD 2H CTB
Asset Area:	DBEN
Release Discovery Date & Time:	7/30/2022
Release Type:	Oil
Provide any known details about the event:	HOLE IN FLARE SCUBBER DRAINLINE

Spill Calculation - On Pad Surface Pool Spill

Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Deepest point in each of the areas (in.)	No. of boundaries of "shore" in each area	Estimated *Pool* Area (sq. ft.)	Estimated Average Depth (ft.)	Estimated volume of each pool area (bbl.)	Penetration allowance (ft.)	Total Estimated Volume of Spill (bbl.)
Rectangle A	30.0	10.0	6.00	4	300.000	0.125	6.675	0.006	6.717
Rectangle B					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle C					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle D					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle E					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle F					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle G					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle H					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle I					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle J					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
								Total Volume Release:	6.717

L48 Spill Volume Estimate Form

Facility Name & Number:	WINDWARD 2H CTB
Asset Area:	DBEN
Release Discovery Date & Time:	7/30/2022 9:45AM
Release Type:	Oil
Provide any known details about the event:	FLARE FIRE FROM PRODUCTION K.O. DUMP LINE PLUGGED

Spill Calculation - On Pad Surface Pool Spill

Convert Irregular shape into a series of rectangles	Length (ft.)	Width (ft.)	Deepest point in each of the areas (in.)	No. of boundaries of "shore" in each area	Estimated *Pool* Area (sq. ft.)	Estimated Average Depth (ft.)	Estimated volume of each pool area (bbl.)	Penetration allowance (ft.)	Total Estimated Volume of Spill (bbl.)
Rectangle A	80.0	20.0	0.10	4	1600.000	0.002	0.593	0.000	0.593
Rectangle B					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle C					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle D					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle E					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle F					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle G					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle H					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle I					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Rectangle J					0.000	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
								Total Volume Release:	0.593

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2222347897
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2222347897
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: ___Charles Beauvais_____ Title: _Senior Environmental Engineer_____

Signature:__Charles R. Beauvais II_____ Date: __10/28/022_____

email: _Charles.R.Beauvais@conocophillips.com _____ Telephone: ___575-988-2043_____

OCD Only

Received by: __Jocelyn Harimon_____ Date: ___10/31/2022___

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2222347897
District RP	
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Charles Beauvais Title: Senior Environmental Engineer

Signature: Charles R. Beauvais II Date: 10/28/2022

email: Charles.R.Beauvais@conocophillips.com Telephone: 575-988-2043

OCD Only

Received by: Jocelyn Harimon Date: 10/31/2022

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Jennifer Nobui Date: 11/23/2022

Printed Name: Jennifer Nobui Title: Environmental Specialist A

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 154891

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 154891
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved. Please implement 19.15.29.13 NMAC when completing P&A.	11/23/2022