ENSOLUM

February 5, 2025

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
Nocaster 19 Federal 3H & 4H RB
Incident Number NAPP2435355882
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 assessment and soil sampling activities completed at the Nocaster 19 Federal 3H & 4H RB (Site) following a release of crude oil and produced water within a lined containment. Based on field observations, field screening activities, and laboratory analytical results, COG is submitting this *Closure Request,* describing assessment activities that have occurred and requesting no further action and closure for Incident Number NAPP2435355882.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit P, Section 19, Township 23 South, Range 34 East, in Lea County, New Mexico (32.28383056°, -103.5033805°) and is associated with oil and gas exploration and production operations on State Trust Land (STL) managed by the New Mexico State Land Office (NMSLO).

On December 18, 2024, equipment failure resulted in the release of approximately 38 barrels (bbls) of crude oil and 4 bbls of produced water into a lined containment. A vacuum truck was dispatched to the Site to recover free-standing fluids; approximately all 38 bbls of crude oil and 4 bbls of produced water were recovered. The equipment was repaired, and the lined containment was power washed to remove any residual fluids. COG reported the release to the New Mexico Oil Conservation Division (NMOCD) via a *Notification of Release* (NOR) on December 18, 2024, and subsequently on a *Release Notification Form C-141* (Form C-141) on January 7, 2025. The release was assigned Incident Number NAPP2435355882.

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) of the New Mexico Administrative Code (NMAC). Results from the characterization are summarized below and detailed in the NMOCD permitting portal Form C-141 Site Characterization section.

Depth to groundwater at the Site is is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer (NMOSE) permitted well C-04665, located approximately 0.5 miles east of the Site. The groundwater well was drilled during September 2022 to a

total depth of 120 feet bgs, and no groundwater was encountered. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a streambed, located approximately 1,206 feet southwest 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).

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
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

LINER INTEGRITY INSPECTION AND DELINEATION ACTIVITIES

A 48-hour advanced notice of the liner insepction was submitted to the NMOCD portal on January 2, 2025. A liner integrity inspection was conducted by Ensolum personnel on January 8, 2025. Upon inspection, the liner was determined to be insufficient. Since the release remained on pad, an assessment of cultural properties had already been completed prior to the construction of the well pad and as such, the Cultural Properties Protection Rule (CPP) has been followed. No additional cultural resource surveys were completed in connection with this release.

One borehole (BH01) was advanced via hand auger at the location of the tear in the liner to assess for the presence or absence of impacted soil beneath the liner. Two discrete delineation soil samples were collect from the borehole at 0.5 feet and 1-foot bgs. Four delineation soil samples (SS01 through SS04) were collected around the lined containment at a depth of 0.5 feet bgs to confirm the lateral extent of the release.

The delineation soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips, respectively. Field screening results and observations from the borehole were documented on a lithologic soil sampling log, which is included as Appendix B. Borehole BH01 was backfilled with soil removed and a COG contractor repaired the tear in the liner. The soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was completed during the Site visits. A photographic log is included in Appendix C.

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 under strict chain-of-custody (COC) procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New

Mexico, for analysis of 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

Laboratory analytical results for delineation soil samples BH01, collected at 0.5 feet and 1-foot bgs beneath the tear in the liner, indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria and confirmed the absence of impacted soil beneath the liner. Laboratory analytical results for soil samples SS01 through SS04, collected around the lined containment, indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria and successfully defined the lateral extent of the release. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical report is included as Appendix D.

CLOSURE REQUEST

Following the failed liner integrity inspection at the Site, Ensolum personnel advanced one borehole (BH01) at the location of the tear in the liner to assess for the presence or absence of impacted soil resulting from the December 18, 2024, crude oil and produced water release within lined containment. Laboratory analytical results for delineation soil samples, collected directly beneath and around the lined containment, indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria. The release was contained laterally by the lined containment and all released fluids were recovered during initial response efforts. The tear in the liner was subsequently repaired.

Based on initial response efforts and the absence of impacted soil, COG respectfully requests closure for Incident Number NAPP2435355882.

If you have any questions or comments, please contact Ms. Hadlie Green at (432) 557-8895 or hgreen@ensolum.com.

Sincerely,
Ensolum, LLC

Hadlie Green
Project Geologist

Daniel R. Moir, PG (Licensed in WY & TX)
Senior Managing Geologist

cc: Jacob Laird, COG Operating, LLC
NMSLO

Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation 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

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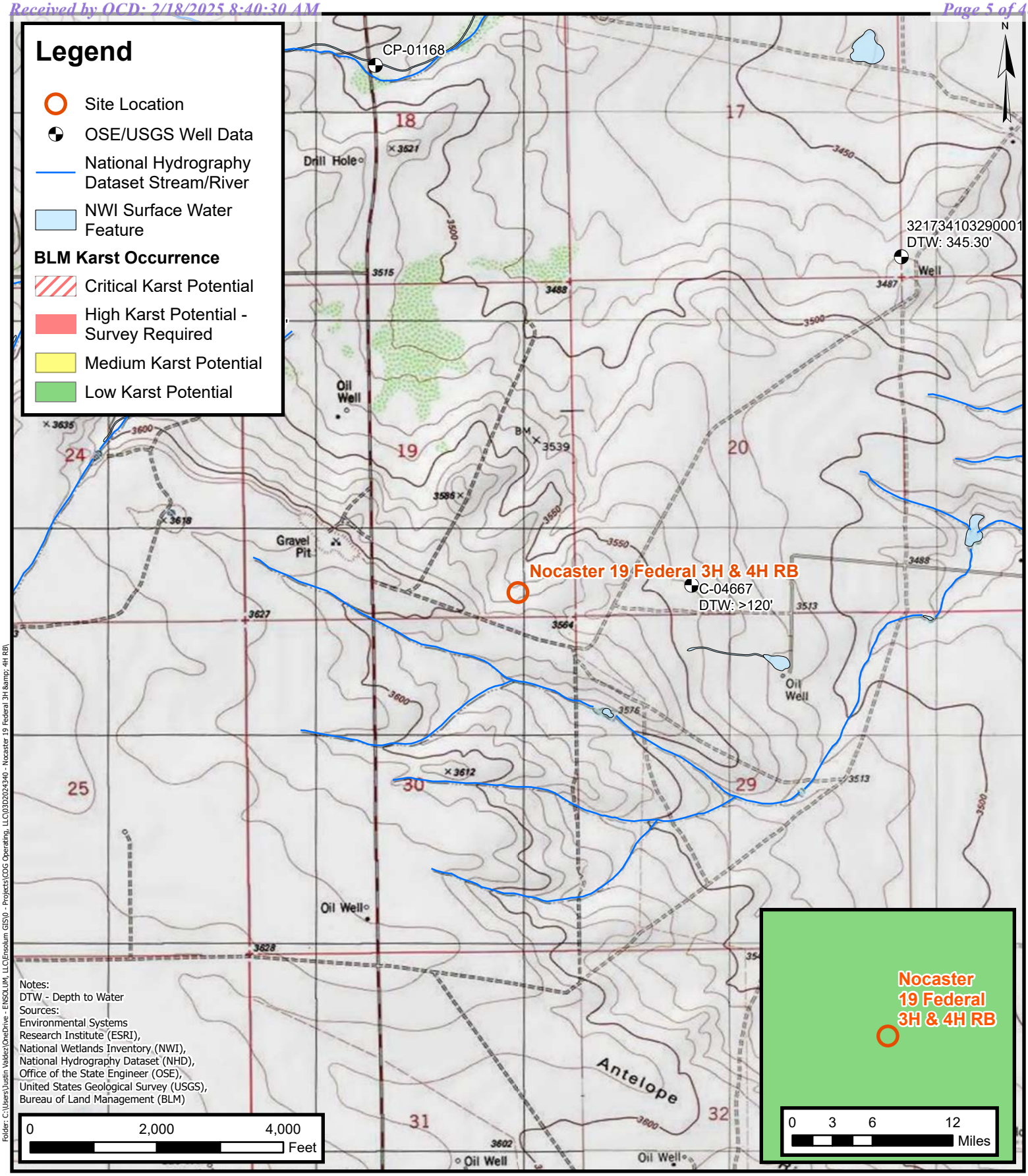
FIGURES



Folder: C:\Users\Justin Valdez\OneDrive - ENSOLUM, LLC\Ensolum GIS\0 - Projects\COG Operating, LLC\03202024340 - Nocaster 19 Federal 3H & 4H RB\

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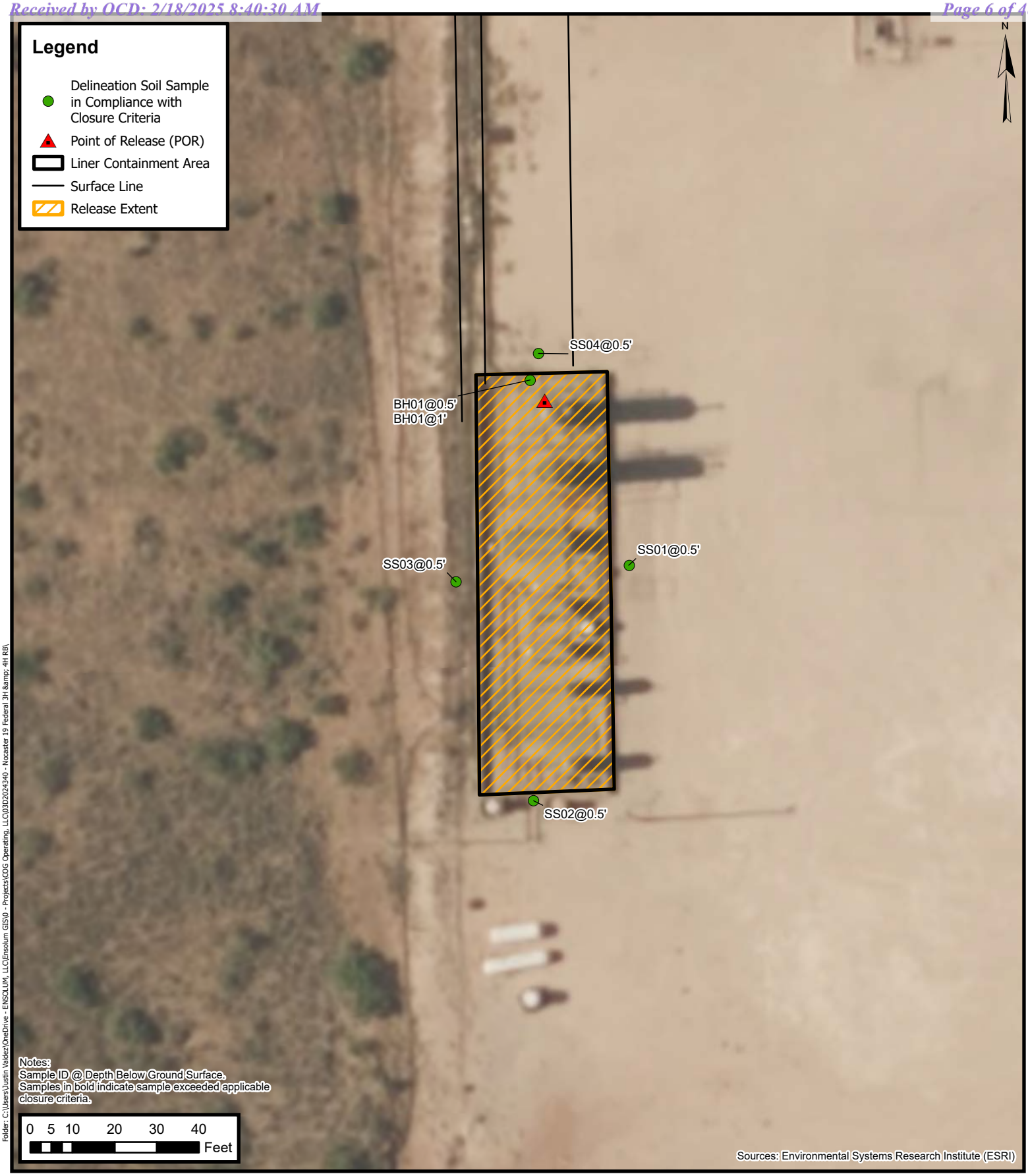
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

COG Operating, LLC
Nocaster 19 Federal 3H and 4H RB
Incident Number: NAPP2435355882
Unit P, Section 19, T 23S, R 34E
Lea County, New Mexico

FIGURE 1



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Environmental, Engineering and Hydrogeologic Consultants

Delineation Soil Sample Locations

COG Operating, LLC
Nocaster 19 Federal 3H and 4H RB
Incident Number: NAPP2435355882
Unit P, Section 19, T 23S, R 34E
Lea County, New Mexico

FIGURE 2

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Nocaster 19 Federal 3H & 4H RB
COG Operating, LLC
Lea County, New Mexico

Sample Designation	Date	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 I Closure Criteria (NMAC 19.15.29)			**10**	**50**	**NE**	**NE**	**NE**	**1,000**	**2,500**	**20,000**
Delineation Soil Samples										
BH01	01/24/2025	0.5	<0.00200	<0.00399	<49.7	<49.7	<49.7	<49.7	<49.7	<9.96
BH01	01/24/2025	1	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	<10.1
SS01	01/24/2025	0.5	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	48.8
SS02	01/24/2025	0.5	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	65.8
SS03	01/24/2025	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	<9.92
SS04	01/24/2025	0.5	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	16.3

Notes:

NMOCD: New Mexico Oil Conservation Division

NMAC: New Mexico Administrative Code

mg/kg: milligrams per kilogram

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

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

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
C-4667-POD1		C-04665

WELL OWNER NAME(S)	PHONE (OPTIONAL)
COG OPERATING LLC	575-988-2043

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
2208 W MAIN ST	ARTESIA	NM	88210

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	17	2.55	N
	LONGITUDE	-103	29	40.16	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

KING TUT FEDERAL 001H

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1184	RUSSELL SOUTHERLAND	WEST TEXAS WATER WELL SERVICE

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
9/15/2022	09/15/2022	120		

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT): N/A

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☑ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER – SPECIFY:

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
			NO CASING IN HOLE				

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
			N/A		

OSE DII OCT 3 2022 PM4:37

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/19)

FILE NO. C-04667 POD1	POD NO. 1	TRN NO. 733232	
LOCATION 23S.34E.20.3.4.3		WELL TAG ID NO. NA	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	17		CALICHIE	Y ✔ N	
17	60		SAND	Y ✔ N	
60	120		RED SANDY CLAY	Y ✔ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☑ OTHER – SPECIFY: DRY HOLE

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

WELL TEST: TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

OSE DII OCT 3 2022 PM4:37

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

RUSSELL SOUTHERLAND

6. SIGNATURE

BY SIGNING BELOW, I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED WELL. I ALSO CERTIFY THAT THE WELL TAG, IF REQUIRED, HAS BEEN INSTALLED AND THAT THIS WELL RECORD WILL ALSO BE FILED WITH THE PERMIT HOLDER WITHIN 30 DAYS AFTER THE COMPLETION OF WELL DRILLING.

Russell Southerland Russell Southerland — RUSSELL SOUTHERLAND

SIGNATURE OF DRILLER / PRINT SIGNEE NAME

09/15/2022

DATE

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 04/30/2019)

FILE NO. C-04667	POD NO. 1	TRN NO. 733232	
LOCATION 23S.34E.20.34.		WELL TAG ID NO. NA	PAGE 2 OF 2

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APPENDIX B

Lithologic Soil Sampling Log

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	Sample Name: BH01	Date: 01/24/2025
	Site Name: Nocaster 19 Federal 3H & 4H RB	
	Incident Number: NAPP2435355882	
	Job Number: 03D2024340	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: TG	Method: Hand Auger
Coordinates: 32.2838309, -103.5033806	Hole Diameter: 4"	Total Depth: 1'

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. 40% correction factor included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						0		
D	<168	0.1	N	BH01	0.5	0.5	CCHE	CALICHE, white, large clasts, poorly graded, no staining, no odor.
D	<168	0.0	N	BH01	1	1	CCHE	CALICHE, same as above

TOTAL DEPTH @ 1-FOOT BGS

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APPENDIX C

Photographic Log

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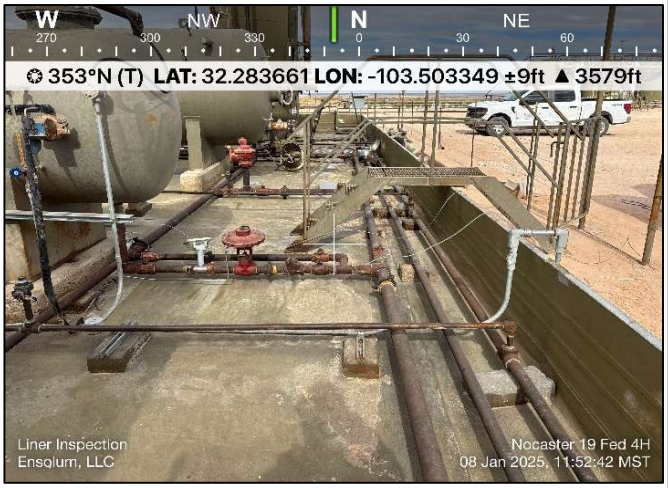
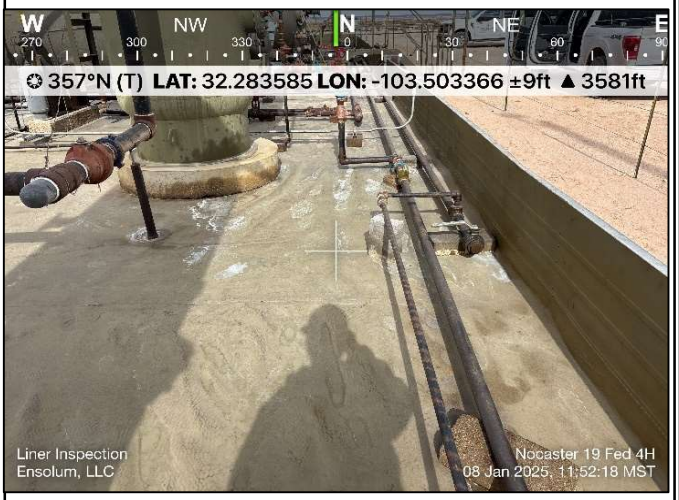
Photographic Log
COG Operating, LLC
Nocaster 19 Federal 3H & 4H RB
NAPP2435355882

Photograph: 1 Date: 1/8/2025
Description: Facility well sign
View: North

Photograph: 2 Date: 1/8/2025
Description: Tank Battery during liner inspection
View: Northeast



Photograph: 3 Date: 1/8/2025
Description: Liner during liner inspection
View: North



Photograph: 4 Date: 1/8/2025
Description: Liner during liner inspection
View: North

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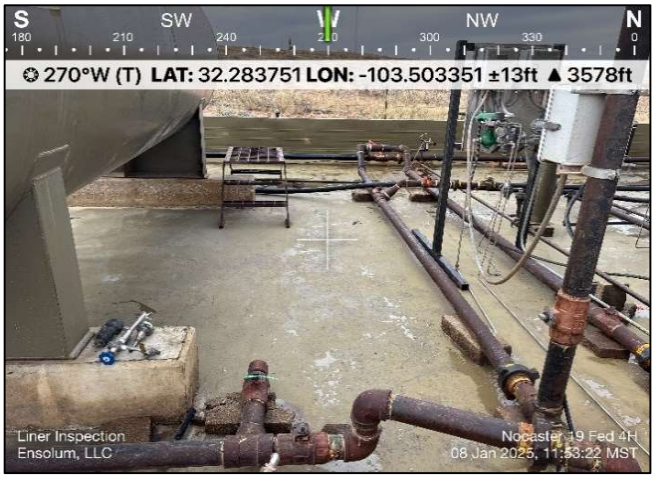
Photographic Log
COG Operating, LLC
Nocaster 19 Federal 3H & 4H RB
NAPP2435355882



Photograph: 5 Date: 1/8/2025
Description: Liner and equipment during inspection
View: West

Photograph: 6 Date: 1/8/2025
Description: Liner tear during liner inspection
View: West

Photograph: 7 Date: 1/24/2025
Description: Liner delineation activities
View: Northwest

Photograph: 8 Date: 1/24/2025
Description: Patched Liner
View: Direct

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APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Hadlie Green
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 1/29/2025 11:19:11 AM

JOB DESCRIPTION

Nocaster 19 Federal 3H & 4H RB
Lea County

JOB NUMBER

880-53654-1

Eurofins Midland
1211 W. Florida Ave
Midland TX 79701

See page two for job notes and contact information.

Released to Imaging: 2/28/2025 1:18:44 PM

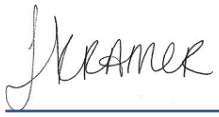
Eurofins Midland

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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1/29/2025 11:19:11 AM

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

Client: Ensolum
Project/Site: Nocaster 19 Federal 3H & 4H RB

Laboratory Job ID: 880-53654-1
SDG: Lea County

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 880-53654-1
Project/Site: Nocaster 19 Federal 3H & 4H RB SDG: Lea County

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
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 Job ID: 880-53654-1
Project: Nocaster 19 Federal 3H & 4H RB

Job ID: 880-53654-1 Eurofins Midland

Job Narrative
880-53654-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 1/24/2025 4:45 PM. 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 2.7°C.

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: BH01 (880-53654-1), BH01 (880-53654-2), SS01 (880-53654-3), SS02 (880-53654-4), SS03 (880-53654-5) and SS04 (880-53654-6).

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

Diesel Range Organics
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-101340 and analytical batch 880-101350 was outside the upper control limits.

Method 8015MOD_NM: An incorrect volume of surrogate spiking solution was inadvertently added the following samples: (890-7605-A-10-A), (890-7605-A-10-B MS) and (890-7605-A-10-C MSD). Percent recoveries are based on the amount spiked.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS02 (880-53654-4), SS03 (880-53654-5) and SS04 (880-53654-6). Evidence of matrix interferences is not obvious.

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 - Soluble: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-101325 and analytical batch 880-101377 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is 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: Nocaster 19 Federal 3H & 4H RB

Job ID: 880-53654-1
SDG: Lea County

Client Sample ID: BH01

Lab Sample ID: 880-53654-1
Matrix: Solid
Date Collected: 01/24/25 09:20
Date Received: 01/24/25 16:45
Sample Depth: 0.5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/27/25 10:24	01/27/25 16:30	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/27/25 10:24	01/27/25 16:30	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/27/25 10:24	01/27/25 16:30	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/27/25 10:24	01/27/25 16:30	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/27/25 10:24	01/27/25 16:30	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/27/25 10:24	01/27/25 16:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*01/27/25 10:24*	*01/27/25 16:30*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*01/27/25 10:24*	*01/27/25 16:30*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/27/25 16:30	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.7	U	49.7		mg/Kg			01/28/25 11:59	1

Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.7	U	49.7		mg/Kg		01/28/25 07:52	01/28/25 11:59	1
Diesel Range Organics (Over C10-C28)	<49.7	U	49.7		mg/Kg		01/28/25 07:52	01/28/25 11:59	1
Oil Range Organics (Over C28-C36)	<49.7	U	49.7		mg/Kg		01/28/25 07:52	01/28/25 11:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*01/28/25 07:52*	*01/28/25 11:59*	*1*
o-Terphenyl	*74*		*70 - 130*	*01/28/25 07:52*	*01/28/25 11:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<9.96	U	9.96		mg/Kg			01/29/25 02:04	1

Client Sample ID: BH01

Lab Sample ID: 880-53654-2
Matrix: Solid
Date Collected: 01/24/25 09:25
Date Received: 01/24/25 16:45
Sample Depth: 1

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/27/25 10:24	01/27/25 16:50	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/27/25 10:24	01/27/25 16:50	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/27/25 10:24	01/27/25 16:50	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/27/25 10:24	01/27/25 16:50	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/27/25 10:24	01/27/25 16:50	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/27/25 10:24	01/27/25 16:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*01/27/25 10:24*	*01/27/25 16:50*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Nocaster 19 Federal 3H & 4H RB

Job ID: 880-53654-1
SDG: Lea County

Client Sample ID: BH01

Lab Sample ID: 880-53654-2
Matrix: Solid
Date Collected: 01/24/25 09:25
Date Received: 01/24/25 16:45
Sample Depth: 1

Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*01/27/25 10:24*	*01/27/25 16:50*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			01/27/25 16:50	1

Method: SW846 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			01/28/25 12:14	1

Method: SW846 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		01/28/25 07:52	01/28/25 12:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/28/25 07:52	01/28/25 12:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/28/25 07:52	01/28/25 12:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*01/28/25 07:52*	*01/28/25 12:14*	*1*
o-Terphenyl	*75*		*70 - 130*	*01/28/25 07:52*	*01/28/25 12:14*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.1	U F1	10.1	mg/Kg			01/29/25 02:10	1

Client Sample ID: SS01

Lab Sample ID: 880-53654-3
Matrix: Solid
Date Collected: 01/24/25 09:56
Date Received: 01/24/25 16:45
Sample Depth: 0.5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/27/25 10:24	01/27/25 17:11	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/27/25 10:24	01/27/25 17:11	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/27/25 10:24	01/27/25 17:11	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/27/25 10:24	01/27/25 17:11	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/27/25 10:24	01/27/25 17:11	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/27/25 10:24	01/27/25 17:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*01/27/25 10:24*	*01/27/25 17:11*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*01/27/25 10:24*	*01/27/25 17:11*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/27/25 17:11	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			01/28/25 12:31	1

Client Sample Results

Client: Ensolum
Project/Site: Nocaster 19 Federal 3H & 4H RB

Job ID: 880-53654-1
SDG: Lea County

Client Sample ID: SS01

Lab Sample ID: 880-53654-3
Matrix: Solid
Date Collected: 01/24/25 09:56
Date Received: 01/24/25 16:45
Sample Depth: 0.5

Method: SW846 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	49.8		mg/Kg		01/28/25 07:52	01/28/25 12:31	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		01/28/25 07:52	01/28/25 12:31	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		01/28/25 07:52	01/28/25 12:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*01/28/25 07:52*	*01/28/25 12:31*	*1*
o-Terphenyl	*79*		*70 - 130*	*01/28/25 07:52*	*01/28/25 12:31*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**48.8**		10.1		mg/Kg			01/29/25 02:28	1

Client Sample ID: SS02

Lab Sample ID: 880-53654-4
Matrix: Solid
Date Collected: 01/24/25 09:58
Date Received: 01/24/25 16:45
Sample Depth: 0.5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/27/25 10:24	01/27/25 17:31	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/27/25 10:24	01/27/25 17:31	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/27/25 10:24	01/27/25 17:31	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/27/25 10:24	01/27/25 17:31	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/27/25 10:24	01/27/25 17:31	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/27/25 10:24	01/27/25 17:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*01/27/25 10:24*	*01/27/25 17:31*	*1*
1,4-Difluorobenzene (Surr)	*80*		*70 - 130*	*01/27/25 10:24*	*01/27/25 17:31*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/27/25 17:31	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			01/28/25 11:59	1

Method: SW846 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	49.8		mg/Kg		01/28/25 08:12	01/28/25 11:59	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		01/28/25 08:12	01/28/25 11:59	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		01/28/25 08:12	01/28/25 11:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*148*	*S1+*	*70 - 130*	*01/28/25 08:12*	*01/28/25 11:59*	*1*
o-Terphenyl	*122*		*70 - 130*	*01/28/25 08:12*	*01/28/25 11:59*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Nocaster 19 Federal 3H & 4H RB

Job ID: 880-53654-1
SDG: Lea County

Client Sample ID: SS02

Lab Sample ID: 880-53654-4
Matrix: Solid
Date Collected: 01/24/25 09:58
Date Received: 01/24/25 16:45
Sample Depth: 0.5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	65.8		9.94		mg/Kg			01/29/25 02:34	1

Client Sample ID: SS03

Lab Sample ID: 880-53654-5
Matrix: Solid
Date Collected: 01/24/25 10:00
Date Received: 01/24/25 16:45
Sample Depth: 0.5

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/27/25 10:24	01/27/25 17:52	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/27/25 10:24	01/27/25 17:52	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/27/25 10:24	01/27/25 17:52	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		01/27/25 10:24	01/27/25 17:52	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/27/25 10:24	01/27/25 17:52	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		01/27/25 10:24	01/27/25 17:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*01/27/25 10:24*	*01/27/25 17:52*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*01/27/25 10:24*	*01/27/25 17:52*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			01/27/25 17:52	1

Method: SW846 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			01/28/25 12:14	1

Method: SW846 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		01/28/25 08:12	01/28/25 12:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/28/25 08:12	01/28/25 12:14	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/28/25 08:12	01/28/25 12:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*146*	*S1+*	*70 - 130*	*01/28/25 08:12*	*01/28/25 12:14*	*1*
o-Terphenyl	*118*		*70 - 130*	*01/28/25 08:12*	*01/28/25 12:14*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<9.92	U	9.92		mg/Kg			01/29/25 02:51	1

Client Sample Results

Client: Ensolum
Project/Site: Nocaster 19 Federal 3H & 4H RB

Job ID: 880-53654-1
SDG: Lea County

Client Sample ID: SS04

Date Collected: 01/24/25 10:02
Date Received: 01/24/25 16:45
Sample Depth: 0.5

Lab Sample ID: 880-53654-6

Matrix: Solid

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		01/27/25 10:24	01/27/25 18:12	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/27/25 10:24	01/27/25 18:12	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/27/25 10:24	01/27/25 18:12	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/27/25 10:24	01/27/25 18:12	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/27/25 10:24	01/27/25 18:12	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/27/25 10:24	01/27/25 18:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*01/27/25 10:24*	*01/27/25 18:12*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*01/27/25 10:24*	*01/27/25 18:12*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			01/27/25 18:12	1

Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			01/28/25 12:31	1

Method: SW846 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	49.8		mg/Kg		01/28/25 08:12	01/28/25 12:31	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		01/28/25 08:12	01/28/25 12:31	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		01/28/25 08:12	01/28/25 12:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*151*	*S1+*	*70 - 130*	*01/28/25 08:12*	*01/28/25 12:31*	*1*
o-Terphenyl	*122*		*70 - 130*	*01/28/25 08:12*	*01/28/25 12:31*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16.3**		9.94		mg/Kg			01/29/25 07:53	1

Surrogate Summary

Client: Ensolum
Project/Site: Nocaster 19 Federal 3H & 4H RB

Job ID: 880-53654-1
SDG: Lea County

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)
880-53654-1	BH01	103	98
880-53654-2	BH01	113	98
880-53654-3	SS01	106	98
880-53654-4	SS02	95	80
880-53654-5	SS03	105	98
880-53654-6	SS04	105	99
LCS 880-101248/1-A	Lab Control Sample	102	99
LCSD 880-101248/2-A	Lab Control Sample Dup	99	100
MB 880-101248/5-A	Method Blank	101	95

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)
880-53654-1	BH01	77	74
880-53654-2	BH01	80	75
880-53654-3	SS01	86	79
880-53654-4	SS02	148 S1+	122
880-53654-5	SS03	146 S1+	118
880-53654-6	SS04	151 S1+	122
LCS 880-101336/2-A	Lab Control Sample	87	90
LCS 880-101340/2-A	Lab Control Sample	122	112
LCSD 880-101336/3-A	Lab Control Sample Dup	87	92
LCSD 880-101340/3-A	Lab Control Sample Dup	124	114
MB 880-101336/1-A	Method Blank	115	107
MB 880-101340/1-A	Method Blank	164 S1+	135 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Nocaster 19 Federal 3H & 4H RB

Job ID: 880-53654-1
SDG: Lea County

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-101248/5-A
Matrix: Solid
Analysis Batch: 101242

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 101248

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/27/25 08:36	01/27/25 11:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/27/25 08:36	01/27/25 11:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/27/25 08:36	01/27/25 11:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/27/25 08:36	01/27/25 11:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/27/25 08:36	01/27/25 11:21	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/27/25 08:36	01/27/25 11:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*01/27/25 08:36*	*01/27/25 11:21*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*01/27/25 08:36*	*01/27/25 11:21*	*1*

Lab Sample ID: LCS 880-101248/1-A
Matrix: Solid
Analysis Batch: 101242

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 101248

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08463		mg/Kg		85	70 - 130		
Toluene			0.100	0.08720		mg/Kg		87	70 - 130		
Ethylbenzene			0.100	0.09055		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.1707		mg/Kg		85	70 - 130		
o-Xylene			0.100	0.08683		mg/Kg		87	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: LCSD 880-101248/2-A
Matrix: Solid
Analysis Batch: 101242

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 101248

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08861		mg/Kg		89	70 - 130	5	35
Toluene			0.100	0.09188		mg/Kg		92	70 - 130	5	35
Ethylbenzene			0.100	0.09454		mg/Kg		95	70 - 130	4	35
m-Xylene & p-Xylene			0.200	0.1780		mg/Kg		89	70 - 130	4	35
o-Xylene			0.100	0.09050		mg/Kg		90	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Nocaster 19 Federal 3H & 4H RB

Job ID: 880-53654-1
SDG: Lea County

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

Lab Sample ID: MB 880-101336/1-A
Matrix: Solid
Analysis Batch: 101348

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 101336

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		01/28/25 07:52	01/28/25 01:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/28/25 07:52	01/28/25 01:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/28/25 07:52	01/28/25 01:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*115*		*70 - 130*	*01/28/25 07:52*	*01/28/25 01:04*	*1*
o-Terphenyl	*107*		*70 - 130*	*01/28/25 07:52*	*01/28/25 01:04*	*1*

Lab Sample ID: LCS 880-101336/2-A
Matrix: Solid
Analysis Batch: 101348

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 101336

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	813.2		mg/Kg		81	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	806.4		mg/Kg		81	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*87*		*70 - 130*
o-Terphenyl	*90*		*70 - 130*

Lab Sample ID: LCSD 880-101336/3-A
Matrix: Solid
Analysis Batch: 101348

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 101336

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	785.9		mg/Kg		79	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	826.4		mg/Kg		83	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*87*		*70 - 130*
o-Terphenyl	*92*		*70 - 130*

Lab Sample ID: MB 880-101340/1-A
Matrix: Solid
Analysis Batch: 101350

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 101340

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		01/28/25 08:12	01/28/25 01:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/28/25 08:12	01/28/25 01:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/28/25 08:12	01/28/25 01:04	1

QC Sample Results

Client: Ensolum
Project/Site: Nocaster 19 Federal 3H & 4H RB

Job ID: 880-53654-1
SDG: Lea County

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

Lab Sample ID: MB 880-101340/1-A
Matrix: Solid
Analysis Batch: 101350

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 101340

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	164	S1+	70 - 130	01/28/25 08:12	01/28/25 01:04	1
o-Terphenyl	135	S1+	70 - 130	01/28/25 08:12	01/28/25 01:04	1

Lab Sample ID: LCS 880-101340/2-A
Matrix: Solid
Analysis Batch: 101350

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 101340

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1076		mg/Kg		108	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1063		mg/Kg		106	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	122		70 - 130
o-Terphenyl	112		70 - 130

Lab Sample ID: LCSD 880-101340/3-A
Matrix: Solid
Analysis Batch: 101350

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 101340

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1111		mg/Kg		111	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	1070		mg/Kg		107	70 - 130	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	124		70 - 130
o-Terphenyl	114		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-101325/1-A
Matrix: Solid
Analysis Batch: 101377

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<10.0	U	10.0	mg/Kg			01/29/25 00:30	1

Lab Sample ID: LCS 880-101325/2-A
Matrix: Solid
Analysis Batch: 101377

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	269.2		mg/Kg		108	90 - 110

QC Sample Results

Client: Ensolum
Project/Site: Nocaster 19 Federal 3H & 4H RB

Job ID: 880-53654-1
SDG: Lea County

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-101325/3-A
Matrix: Solid
Analysis Batch: 101377

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	269.0		mg/Kg		108	90 - 110	0	20

Lab Sample ID: 880-53654-2 MS
Matrix: Solid
Analysis Batch: 101377

Client Sample ID: BH01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	<10.1	U F1	252	287.9	F1	mg/Kg		112	90 - 110		

Lab Sample ID: 880-53654-2 MSD
Matrix: Solid
Analysis Batch: 101377

Client Sample ID: BH01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	<10.1	U F1	252	288.4	F1	mg/Kg		112	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Nocaster 19 Federal 3H & 4H RB

Job ID: 880-53654-1
SDG: Lea County

GC VOA

Analysis Batch: 101242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53654-1	BH01	Total/NA	Solid	8021B	101248
880-53654-2	BH01	Total/NA	Solid	8021B	101248
880-53654-3	SS01	Total/NA	Solid	8021B	101248
880-53654-4	SS02	Total/NA	Solid	8021B	101248
880-53654-5	SS03	Total/NA	Solid	8021B	101248
880-53654-6	SS04	Total/NA	Solid	8021B	101248
MB 880-101248/5-A	Method Blank	Total/NA	Solid	8021B	101248
LCS 880-101248/1-A	Lab Control Sample	Total/NA	Solid	8021B	101248
LCSD 880-101248/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	101248

Prep Batch: 101248

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53654-1	BH01	Total/NA	Solid	5035	
880-53654-2	BH01	Total/NA	Solid	5035	
880-53654-3	SS01	Total/NA	Solid	5035	
880-53654-4	SS02	Total/NA	Solid	5035	
880-53654-5	SS03	Total/NA	Solid	5035	
880-53654-6	SS04	Total/NA	Solid	5035	
MB 880-101248/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-101248/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-101248/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

Analysis Batch: 101381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53654-1	BH01	Total/NA	Solid	Total BTEX	
880-53654-2	BH01	Total/NA	Solid	Total BTEX	
880-53654-3	SS01	Total/NA	Solid	Total BTEX	
880-53654-4	SS02	Total/NA	Solid	Total BTEX	
880-53654-5	SS03	Total/NA	Solid	Total BTEX	
880-53654-6	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 101336

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53654-1	BH01	Total/NA	Solid	8015NM Prep	
880-53654-2	BH01	Total/NA	Solid	8015NM Prep	
880-53654-3	SS01	Total/NA	Solid	8015NM Prep	
MB 880-101336/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-101336/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-101336/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

Prep Batch: 101340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53654-4	SS02	Total/NA	Solid	8015NM Prep	
880-53654-5	SS03	Total/NA	Solid	8015NM Prep	
880-53654-6	SS04	Total/NA	Solid	8015NM Prep	
MB 880-101340/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-101340/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-101340/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: Nocaster 19 Federal 3H & 4H RB

Job ID: 880-53654-1
SDG: Lea County

GC Semi VOA

Analysis Batch: 101348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53654-1	BH01	Total/NA	Solid	8015B NM	101336
880-53654-2	BH01	Total/NA	Solid	8015B NM	101336
880-53654-3	SS01	Total/NA	Solid	8015B NM	101336
MB 880-101336/1-A	Method Blank	Total/NA	Solid	8015B NM	101336
LCS 880-101336/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	101336
LCSD 880-101336/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	101336

Analysis Batch: 101350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53654-4	SS02	Total/NA	Solid	8015B NM	101340
880-53654-5	SS03	Total/NA	Solid	8015B NM	101340
880-53654-6	SS04	Total/NA	Solid	8015B NM	101340
MB 880-101340/1-A	Method Blank	Total/NA	Solid	8015B NM	101340
LCS 880-101340/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	101340
LCSD 880-101340/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	101340

Analysis Batch: 101454

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53654-1	BH01	Total/NA	Solid	8015 NM	
880-53654-2	BH01	Total/NA	Solid	8015 NM	
880-53654-3	SS01	Total/NA	Solid	8015 NM	
880-53654-4	SS02	Total/NA	Solid	8015 NM	
880-53654-5	SS03	Total/NA	Solid	8015 NM	
880-53654-6	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 101325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53654-1	BH01	Soluble	Solid	DI Leach	
880-53654-2	BH01	Soluble	Solid	DI Leach	
880-53654-3	SS01	Soluble	Solid	DI Leach	
880-53654-4	SS02	Soluble	Solid	DI Leach	
880-53654-5	SS03	Soluble	Solid	DI Leach	
880-53654-6	SS04	Soluble	Solid	DI Leach	
MB 880-101325/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-101325/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-101325/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-53654-2 MS	BH01	Soluble	Solid	DI Leach	
880-53654-2 MSD	BH01	Soluble	Solid	DI Leach	

Analysis Batch: 101377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-53654-1	BH01	Soluble	Solid	300.0	101325
880-53654-2	BH01	Soluble	Solid	300.0	101325
880-53654-3	SS01	Soluble	Solid	300.0	101325
880-53654-4	SS02	Soluble	Solid	300.0	101325
880-53654-5	SS03	Soluble	Solid	300.0	101325
880-53654-6	SS04	Soluble	Solid	300.0	101325
MB 880-101325/1-A	Method Blank	Soluble	Solid	300.0	101325
LCS 880-101325/2-A	Lab Control Sample	Soluble	Solid	300.0	101325

QC Association Summary

Client: Ensolum
Project/Site: Nocaster 19 Federal 3H & 4H RB

Job ID: 880-53654-1
SDG: Lea County

HPLC/IC (Continued)

Analysis Batch: 101377 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-101325/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	101325
880-53654-2 MS	BH01	Soluble	Solid	300.0	101325
880-53654-2 MSD	BH01	Soluble	Solid	300.0	101325

Lab Chronicle

Client: Ensolum
Job ID: 880-53654-1
Project/Site: Nocaster 19 Federal 3H & 4H RB
SDG: Lea County

Client Sample ID: BH01
Lab Sample ID: 880-53654-1
Date Collected: 01/24/25 09:20
Matrix: Solid
Date Received: 01/24/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			101248	AA	EET MID	01/27/25 10:24
Total/NA	Analysis	8021B		1	101242	MNR	EET MID	01/27/25 16:30
Total/NA	Analysis	Total BTEX		1	101381	AJ	EET MID	01/27/25 16:30
Total/NA	Analysis	8015 NM		1	101454	AJ	EET MID	01/28/25 11:59
Total/NA	Prep	8015NM Prep			101336	EL	EET MID	01/28/25 07:52
Total/NA	Analysis	8015B NM		1	101348	TKC	EET MID	01/28/25 11:59
Soluble	Leach	DI Leach			101325	SA	EET MID	01/27/25 16:49
Soluble	Analysis	300.0		1	101377	CH	EET MID	01/29/25 02:04

Client Sample ID: BH01
Lab Sample ID: 880-53654-2
Date Collected: 01/24/25 09:25
Matrix: Solid
Date Received: 01/24/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			101248	AA	EET MID	01/27/25 10:24
Total/NA	Analysis	8021B		1	101242	MNR	EET MID	01/27/25 16:50
Total/NA	Analysis	Total BTEX		1	101381	AJ	EET MID	01/27/25 16:50
Total/NA	Analysis	8015 NM		1	101454	AJ	EET MID	01/28/25 12:14
Total/NA	Prep	8015NM Prep			101336	EL	EET MID	01/28/25 07:52
Total/NA	Analysis	8015B NM		1	101348	TKC	EET MID	01/28/25 12:14
Soluble	Leach	DI Leach			101325	SA	EET MID	01/27/25 16:49
Soluble	Analysis	300.0		1	101377	CH	EET MID	01/29/25 02:10

Client Sample ID: SS01
Lab Sample ID: 880-53654-3
Date Collected: 01/24/25 09:56
Matrix: Solid
Date Received: 01/24/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			101248	AA	EET MID	01/27/25 10:24
Total/NA	Analysis	8021B		1	101242	MNR	EET MID	01/27/25 17:11
Total/NA	Analysis	Total BTEX		1	101381	AJ	EET MID	01/27/25 17:11
Total/NA	Analysis	8015 NM		1	101454	AJ	EET MID	01/28/25 12:31
Total/NA	Prep	8015NM Prep			101336	EL	EET MID	01/28/25 07:52
Total/NA	Analysis	8015B NM		1	101348	TKC	EET MID	01/28/25 12:31
Soluble	Leach	DI Leach			101325	SA	EET MID	01/27/25 16:49
Soluble	Analysis	300.0		1	101377	CH	EET MID	01/29/25 02:28

Client Sample ID: SS02
Lab Sample ID: 880-53654-4
Date Collected: 01/24/25 09:58
Matrix: Solid
Date Received: 01/24/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			101248	AA	EET MID	01/27/25 10:24
Total/NA	Analysis	8021B		1	101242	MNR	EET MID	01/27/25 17:31
Total/NA	Analysis	Total BTEX		1	101381	AJ	EET MID	01/27/25 17:31

Eurofins Midland

Lab Chronicle

Client: Ensolum
Job ID: 880-53654-1
Project/Site: Nocaster 19 Federal 3H & 4H RB
SDG: Lea County

Client Sample ID: SS02
Lab Sample ID: 880-53654-4
Date Collected: 01/24/25 09:58
Matrix: Solid
Date Received: 01/24/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8015 NM		1	101454	AJ	EET MID	01/28/25 11:59
Total/NA	Prep	8015NM Prep			101340	EL	EET MID	01/28/25 08:12
Total/NA	Analysis	8015B NM		1	101350	TKC	EET MID	01/28/25 11:59
Soluble	Leach	DI Leach			101325	SA	EET MID	01/27/25 16:49
Soluble	Analysis	300.0		1	101377	CH	EET MID	01/29/25 02:34

Client Sample ID: SS03
Lab Sample ID: 880-53654-5
Date Collected: 01/24/25 10:00
Matrix: Solid
Date Received: 01/24/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			101248	AA	EET MID	01/27/25 10:24
Total/NA	Analysis	8021B		1	101242	MNR	EET MID	01/27/25 17:52
Total/NA	Analysis	Total BTEX		1	101381	AJ	EET MID	01/27/25 17:52
Total/NA	Analysis	8015 NM		1	101454	AJ	EET MID	01/28/25 12:14
Total/NA	Prep	8015NM Prep			101340	EL	EET MID	01/28/25 08:12
Total/NA	Analysis	8015B NM		1	101350	TKC	EET MID	01/28/25 12:14
Soluble	Leach	DI Leach			101325	SA	EET MID	01/27/25 16:49
Soluble	Analysis	300.0		1	101377	CH	EET MID	01/29/25 02:51

Client Sample ID: SS04
Lab Sample ID: 880-53654-6
Date Collected: 01/24/25 10:02
Matrix: Solid
Date Received: 01/24/25 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			101248	AA	EET MID	01/27/25 10:24
Total/NA	Analysis	8021B		1	101242	MNR	EET MID	01/27/25 18:12
Total/NA	Analysis	Total BTEX		1	101381	AJ	EET MID	01/27/25 18:12
Total/NA	Analysis	8015 NM		1	101454	AJ	EET MID	01/28/25 12:31
Total/NA	Prep	8015NM Prep			101340	EL	EET MID	01/28/25 08:12
Total/NA	Analysis	8015B NM		1	101350	TKC	EET MID	01/28/25 12:31
Soluble	Leach	DI Leach			101325	SA	EET MID	01/27/25 16:49
Soluble	Analysis	300.0		1	101377	CH	EET MID	01/29/25 07:53

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Job ID: 880-53654-1
Project/Site: Nocaster 19 Federal 3H & 4H RB
SDG: Lea County

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	06-30-25

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: Nocaster 19 Federal 3H & 4H RB

Job ID: 880-53654-1
SDG: Lea County

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	EPA	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

EPA = US Environmental Protection Agency

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: Nocaster 19 Federal 3H & 4H RB

Job ID: 880-53654-1
SDG: Lea County

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
880-53654-1	BH01	Solid	01/24/25 09:20	01/24/25 16:45	0.5
880-53654-2	BH01	Solid	01/24/25 09:25	01/24/25 16:45	1
880-53654-3	SS01	Solid	01/24/25 09:56	01/24/25 16:45	0.5
880-53654-4	SS02	Solid	01/24/25 09:58	01/24/25 16:45	0.5
880-53654-5	SS03	Solid	01/24/25 10:00	01/24/25 16:45	0.5
880-53654-6	SS04	Solid	01/24/25 10:02	01/24/25 16:45	0.5

Released to Imaging: 2/28/2025 1:18:44 PM
Received by OCD: 2/18/2025 8:40:30 AM

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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: 880-53654 Chain of Custody

www.xenco.com Page 1 of 1

Project Manager:	Hadlie Green	Bill to: (if different)	
Company Name:	Ensolum, LLC	Company Name:	
Address:	601 N Marienfeld St Ste 400	Address:	
City, State ZIP:	Midland, TX 79701	City, State ZIP:	
Phone:	432-557-8895 Email:	hgreen@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:	Nocastor 19 Federal	Turn Around	
Project Number:	3H & 4H RB 03D2024340	☑ Routine ☐ Rush	
Project Location:	Lea County	Due Date:	
Sampler's Name:	Tabitha Guadian	TAT starts the day received by the lab, if received by 4:30pm	
PO #:	03D2024340		

SAMPLE RECEIPT			
Temp Blank:	Yes (No)	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	IR8
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-1
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	2.8
Total Containers:		Corrected Temperature:	2.7

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 Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	TPH 8015	BTEX 8021	Chloride 300	Sample Comments
BH01	S	1/24/25	0920	0.5	G	1		X	X	X	
BH01			0925	1		1		X	X	X	
SS01			0956	0.5		1		X	X	X	
SS02			0958	0.5		1		X	X	X	
SS03			1000	0.5		1		X	X	X	
SS04			1002	0.5		1		X	X	X	

NFE
1/24/25
TNG

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		1/24/25 1615	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 880-53654-1
SDG Number: Lea County

Login Number: 53654
List Number: 1
Creator: Vasquez, Julisa

List Source: Eurofins Midland

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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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 432945

QUESTIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 432945
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2435355882**
Incident Name	**NAPP2435355882 NOCASTER 19 FEDERAL 3H & 4H RB @ 0**
Incident Type	**Release Other**
Incident Status	**Remediation Closure Report Received**
Incident Facility	**[fAPP2203775638] Nocaster 19 Fed #3 & #4 RB**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	Nocaster 19 Federal 3H & 4H RB
Date Release Discovered	12/18/2024
Surface Owner	State

Incident Details	
Please answer all the questions in this group.	
Incident Type	Release Other
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Cause: Equipment Failure | Other (Specify) | Crude Oil | Released: 38 BBL | Recovered: 38 BBL | Lost: 0 BBL.
Produced Water Released (bbls) Details	Cause: Equipment Failure | Other (Specify) | Produced Water | Released: 4 BBL | Recovered: 4 BBL | Lost: 0 BBL.
Is the concentration of chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
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	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**Yes**
Reasons why this would be considered a submission for a notification of a major release	**From paragraph A. "Major release" determine using:** **(1) an unauthorized release of a volume, excluding gases, of 25 barrels or more.**

With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.

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	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*

Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.

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.

I hereby agree and sign off to the above statement	Name: Brittany Esparza Title: Environmental Technician Email: brittany.Esparza@ConocoPhillips.com Date: 01/07/2025

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QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 432945
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). 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 in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	Direct Measurement
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between 100 and 200 (ft.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Greater than 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Greater than 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	Yes
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	12/18/2024
On what date will (or did) the final sampling or liner inspection occur	01/24/2025
On what date will (or was) the remediation complete(d)	01/24/2025
What is the estimated surface area (in square feet) that will be remediated	0
What is the estimated volume (in cubic yards) that will be remediated	0
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 432945
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
Is (or was) there affected material present needing to be removed	Yes
Is (or was) there a power wash of the lined containment area (to be) performed	Yes
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
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.	
I hereby agree and sign off to the above statement	Name: Brittany Esparza Title: Environmental Technician Email: brittany.Esparza@ConocoPhillips.com Date: 02/18/2025
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 432945
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Liner Inspection Information	
Last liner inspection notification (C-141L) recorded	**416483**
Liner inspection date pursuant to Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC	**01/08/2025**
Was all the impacted materials removed from the liner	**Yes**
What was the liner inspection surface area in square feet	**3175**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Was this release entirely contained within a lined containment area	**Yes**
What was the total surface area (in square feet) remediated	0
What was the total volume (cubic yards) remediated	0
Summarize any additional remediation activities not included by answers (above)	Following the failed liner integrity inspection at the Site, Ensolum personnel advanced one borehole (BH01) at the location of the tear in the liner to assess for the presence or absence of impacted soil resulting from the December 18, 2024, crude oil and produced water release within lined containment. Laboratory analytical results for delineation soil samples, collected directly beneath and around the lined containment, indicated all COC concentrations were compliant with the most stringent Table I Closure Criteria. The release was contained laterally by the lined containment and all released fluids were recovered during initial response efforts. The tear in the liner was subsequently repaired.

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 (in .pdf format) 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.

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.

I hereby agree and sign off to the above statement	Name: Brittany Esparza Title: Environmental Technician Email: brittany.Esparza@ConocoPhillips.com Date: 02/18/2025

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CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 432945
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Liner inspection approved, release resolved.	2/28/2025