ENSOLUM

January 13, 2025

New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Closure Request Addendum
Remuda 500 TB
Incident Numbers NAPP2300441385, NAPP2300448092, and NAPP2300641362
Eddy County, New Mexico

To Whom it May Concern:

Ensolum, LLC (Ensolum) on behalf of XTO Energy, Inc. (XTO), has prepared this *Closure Request Addendum* (*Addendum*) to document assessment and soil sampling activities performed at the Remuda 500 Tank Battery (TB; Site). The purpose of the Site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil resulting from a condensate flare fire, and two crude oil flare fires at the Site. A *Closure Request* was submitted for these releases on March 20, 2023. The New Mexico Oil Conservation Division (NMOCD) denied the request stating additional soil sampling was required. Confirmation soil sampling was completed and the laboratory analytical results are included in this *Addendum*. Based on Site assessment activities and soil sample laboratory analytical results, XTO is submitting this *Addendum*, describing remediation activities that have occurred and requesting no further action for Incident Numbers NAPP2300441385, NAPP2300448092, and NAPP2300641362.

RELEASE BACKGROUND

The Site is located in Unit O, Section 25, Township 23 South, Range 29 East, in Eddy County, New Mexico (32.26974°, -103.93694°) and is associated with oil and gas exploration and production operations on state land managed by the New Mexico State Land Office (SLO; Figure 1).

On December 23, 2022, the low-pressure flare pipeline froze which allowed fluid to build up in the pipeline, causing approximately 0.13 barrels (bbls) of condensate to exit the flare and ignite. The fire extinguished by itself, and no recoverable fluids remained. XTO immediately reported the release via email to the NMOCD on December 23, 2022, and submitted a Release Notification Form C-141 (Form C-141) on January 4, 2023. The release was assigned Incident Number NAPP2300441385.

On December 26, 2022, the low-pressure flare pipeline over-pressured, causing approximately 0.02 bbls of crude oil to exit the flare and ignite. The fire extinguished by itself, and no recoverable fluids remained. XTO reported the release via email to the NMOCD on December 28, 2022, and submitted a Form C-141 on January 4, 2023. The release was assigned Incident Number NAPP2300448092.

On December 27, 2022, the low-pressure flare guppy system malfunctioned, causing approximately 0.05 bbls of crude oil to exit the flare and ignite. The fire extinguished by itself, and no recoverable fluids remained. XTO reported the release via email to the NMOCD on December 28, 2022, and submitted a Form C-141 on January 6, 2023. The release was assigned Incident Number NAPP2300641362.

Please note the location of the release given on the original C-141 for Incident Numbers NAPP2300448092 and NAPP2300641362 has been corrected on the Final Closure C-141. All three release areas overlapped near the low-pressure flare and were addressed concurrently.

As documented in the *Closure Request*, Site assessment and delineation activities were conducted by Ensolum to evaluate the release extent following the flare fire releases. One pothole (PH01) was advanced within the release extent to assess the vertical extent of the release and two discrete delineation soil samples were collected from the pothole at depths of 0.5 feet below ground surface (bgs) and 1-foot bgs. Four discrete delineation soil samples (SS01 through SS04) were collected from a depth of 0.5 feet bgs to assess the lateral extent of the release. Following delineation activities, surface scraping was completed to remove surficial staining caused by the fire releases. Laboratory analytical results indicated contaminants of concern (COC) concentrations for all delineation soil samples were in compliance with the Closure Criteria and the most stringent Table I Closure Criteria. Laboratory analytical results are summarized in Table 1 and soil sample locations are depicted on Figure 2. On August 4, 2023, NMOCD denied the *Closure Request* for all three Incident Numbers for the following reasons:

- *The Closure Report is Denied. The "step-out" samples on pad to verify the edge of the release should only be a maximum of 1-2 feet from the observed edge of the release. Stepping out away from the release area to conduct horizontal delineation samples may tell us whether or not the release left the active well pad, but it does not tell us where the actual edge of the release is located. Please make sure that the edge of the release extent is accurately defined. Additionally, when equipment is located in and around the release area, samples must come from the sidewalls of the release area excavation. The OCD needs to know if the release went in, around, or under equipment/tanks/pipelines. Not having sidewall samples from the actual excavation won't give us those sampling data points that we need. "Step-out" samples should never be conducted if equipment is in the vicinity of the release area.*

CLOSURE CRITERIA

The *Closure Request* detailed site characterization according to 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). The site characterization results were included in the previously submitted *Closure Request* that is included in Appendix A. The Site is in a medium potential karst designation area; however, the release and all of the remedial activities occurred prior to December 1, 2024, the effective date of the NMOCD published *Karst Potential Occurrence Zones Public Notice.* Based on the results of the site characterization, the following Closure Criteria was applied:

- 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

NMSLO CULTURAL RESOURCES AND BIOLOGICAL REVIEW

Cultural Properties Protection

Since the release occurred on the well pad, the site is exempt from the Cultural Properties Protection Rule (CPP). As such, no additional cultural resource surveys were completed in connection with this release.

Biological Review

Ensolum personnel conducted a desktop review to establish if the Site is within an area of possible threatened, endangered, and sensitive wildlife and plant species, environmentally sensitive areas, surface waters, and sensitive soils.

- The Site is within range of the Lesser Prairie-Chicken habitat. From March 1 through June 15, no remediation activities will occur between the hours of 3 am to 9 am to protect any Lesser Prairie-Chickens within the area.
- A review of the U.S. Fish and Wildlife Services Information for Planning and Consultation (IPaC) resources indicated there are no potential critical habitats at the Site. The release was contained on the pad surface, limiting any contact with potential habitats that may exist in the vicinity the Site.
- No environmentally sensitive receptors were located near the Site, as determined by the Site Characterization.
- The Natural Resources Conservation Service (NRCS) Web Soil Survey classifies the soil type at the Site as Simona-Bippus complex, which is not classified as a sensitive soil. The release occurred on the caliche surface of the well pad limiting contact with native soil.

CONFIRMATION SOIL SAMPLING ACTIVITIES

In response to NMOCD comments on the denied *Closure Request*, three 5-point composite confirmation soil samples (FS01 through FS03) were collected at least every 200 square feet from the surface-scraped, release extent on January 4, 2024. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. 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 composite soil samples were collected on the pad surface and encompassed the entirety of the release extent. While the NMOCD denial response indicates the collection of sidewall samples, no sidewall soil samples could be collected since excavation was not completed and thus, no sidewall had existed. The release extent/surface scrape area and confirmation soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 3. Photographic documentation was completed during the soil sampling activities and a Photgraphic Log is included in Appendix B.

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 procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following 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

Laboratory analytical results indicated COC concentrations for all delineation and confirmation soil samples collected were in compliance with the Closure Criteria and the most stringent Table I Closure Criteria. These results include confirmation soil samples FS01 through FS03 collected within the entirety of the release extent/surface scraped area, fully defining the release area as requested by NMOCD in the denial response and confirms the absence of any impacted or waste-containing soil at the Site. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included in Appendix C.

CLOSURE REQUEST

Site assessment, surficial soil scraping, and confirmation soil sampling activities were conducted at the Site to assess for the presence or absence of impacted soil resulting from a release of condensate that occurred on December 23, 2022, and two releases of crude oil occurring on December 26, 2022, and December 27, 2022, all of which resulted in a flare fire. Laboratory analytical results for all delineation and confirmation soil samples indicated COC concentrations were compliant with the Closure Criteria and the most stringent Table I Closure Criteria.

Depth to groundwater has been estimated to be greater than 100 feet bgs and no other sensitive receptors were identified near the release extents. Based on laboratory analytical results compliant with Closure Criteria, no further remediation is required. As such, XTO respectfully requests closure for Incident Numbers NAPP2300441385, NAPP2300448092, and NAPP2300641362.

If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or tmorrissey@ensolum.com.

Sincerely,
Ensolum, LLC

Katherine Kahn, P.G.
Senior Managing Geologist

Ashley L. Ager, M.S., P.G.
Principal

cc: Kaylan Dirkx, XTO
Dale Woodall, XTO
SLO

Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Figure 3	Confirmation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	March 20, 2023, *Closure Request*
Appendix B	Photographic Log
Appendix C	Laboratory Analytical Reports & Chain-of-Custody Documentation

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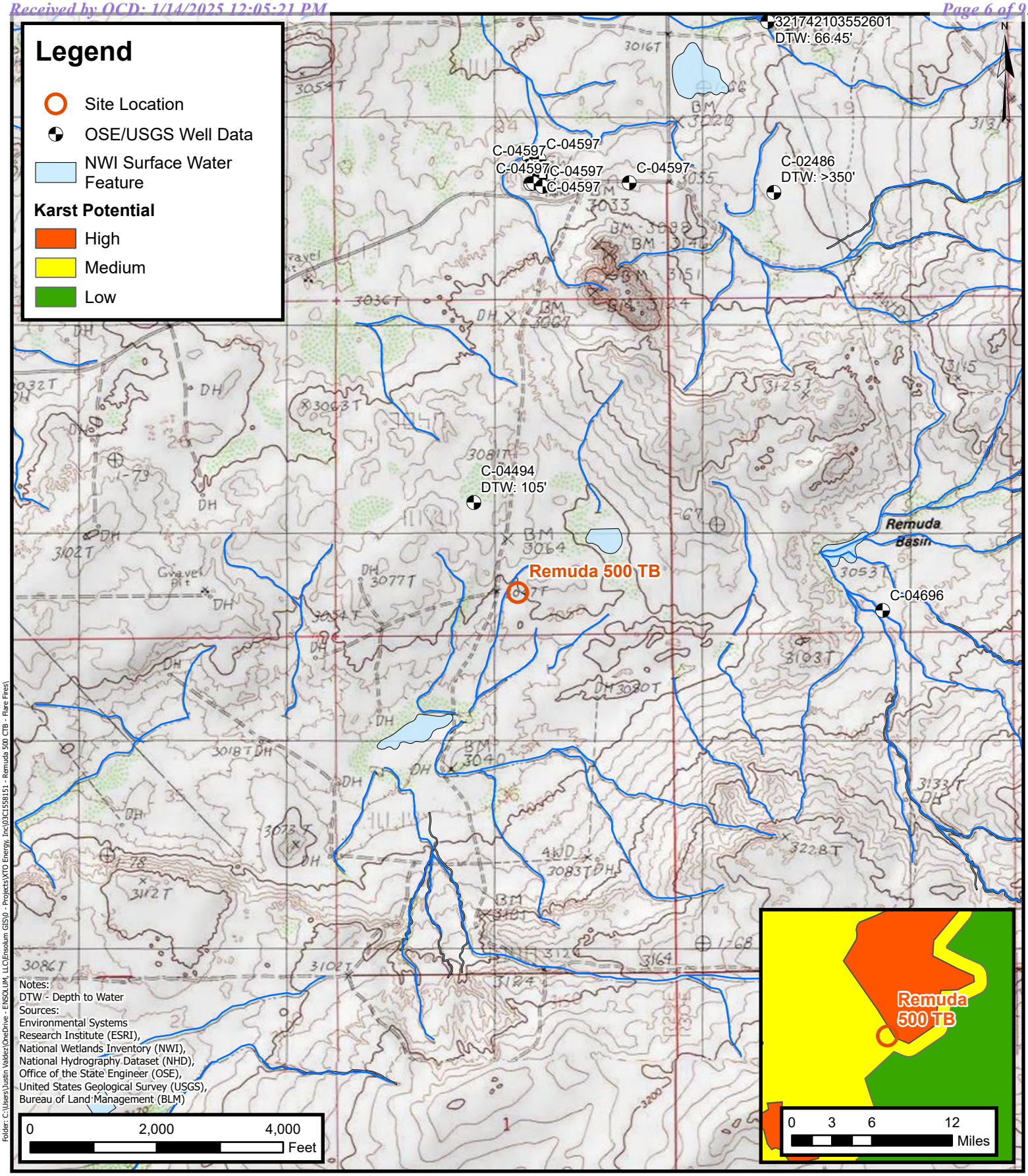
FIGURES



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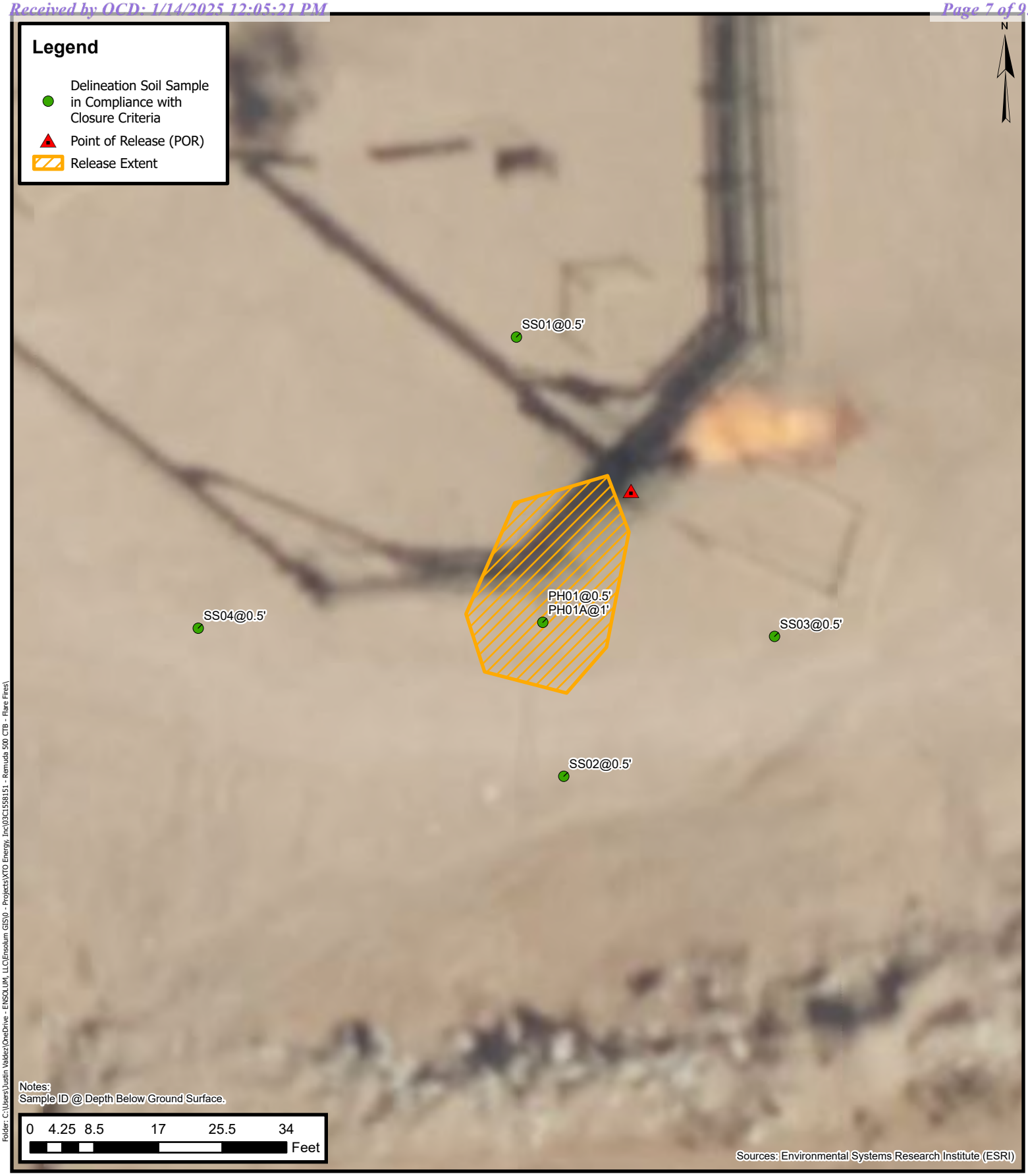
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

XTO Energy, Inc
Remuda 500 TB
Incident Number: NAPP2300441385, NAPP2300448092, NAPP2300641362
Unit O, Section 25, T 23S, R 29E
Eddy County, New Mexico

FIGURE 1



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Delineation Soil Sample Locations

XTO Energy, Inc
Remuda 500 TB
Incident Number: NAPP2300441385, NAPP2300448092, NAPP2300641362
Unit O, Section 25, T 23S, R 29E
Eddy County, New Mexico

FIGURE 2

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Confirmation Soil Sample Locations

XTO Energy, Inc
Remuda 500 TB
Incident Number: NAPP2300441385, NAPP2300448092, NAPP2300641362
Unit O, Section 25, T 23S, R 29E
Eddy County, New Mexico

FIGURE 3

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TABLE

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
REMUDA 500 TB
XTO ENERGY, INC
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 I Closure Criteria (NMAC 19.15.29)			**10**	**50**	**NE**	**NE**	**NE**	**1,000**	**2,500**	**20,000**
Delineation Soil Samples										
SS01	02/10/2023	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	29.5
SS02	02/10/2023	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	24.8
SS03	02/10/2023	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	48.5
SS04	02/10/2023	0.5	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	24.0
PH01	02/10/2023	0.5	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	120
PH01A	02/10/2023	1	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	127
Confirmation Soil Samples										
FS01	01/04/2024	0.5	<0.00201	<0.00402	<49.5	<49.5	<49.5	<49.5	<49.5	68.6
FS02	01/04/2024	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	296
FS03	01/04/2024	0.5	<0.00199	<0.00398	<50.4	<50.4	<50.4	<50.4	<50.4	90.2

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 I Closure Criteria or Reclamation Requirement

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

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APPENDIX A

March 20, 2023, *Closure Request*

ENSOLUM

March 20, 2023

New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Closure Request
Remuda 500 TB
Incident Numbers NAPP2300441385, NAPP2300448092, and NAPP2300641362
Eddy County, New Mexico

To Whom it May Concern:

Ensolum, LLC (Ensolum) on behalf of XTO Energy, Inc. (XTO), has prepared this *Closure Request* to document assessment and soil sampling activities performed at the Remuda 500 Tank Battery (TB; Site). The purpose of the Site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil resulting from a condensate flare fire, and two crude oil flare fires at the Site. Based on Site assessment activities and soil sample laboratory analytical results, XTO is submitting this *Closure Request*, describing remediation activities that have occurred and requesting no further action for Incident Numbers NAPP2300441385, NAPP2300448092, and NAPP2300641362.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit O, Section 25, Township 23 South, Range 29 East, in Eddy County, New Mexico (32.26974°, -103.93694°) and is associated with oil and gas exploration and production operations on state land managed by the New Mexico State Land Office (SLO).

On December 23, 2022, the low-pressure flare pipeline froze which allowed fluid to build up in the pipeline, causing approximately 0.13 barrels (bbls) of condensate to exit the flare and ignite. The fire extinguished by itself, and no recoverable fluids remained. XTO immediately reported the release via email to the New Mexico Oil Conservation Division (NMOCD) on December 23, 2022 and submitted a Release Notification Form C-141 (Form C-141) on January 4, 2023. The release was assigned Incident Number NAPP2300441385.

On December 26, 2022, the low-pressure flare pipeline over-pressured, causing approximately 0.02 bbls of crude oil to exit the flare and ignite. The fire extinguished by itself, and no recoverable fluids remained. XTO reported the release via email to the NMOCD on December 28, 2022 and submitted a Form C-141 on January 4, 2023. The release was assigned Incident Number NAPP2300448092.

On December 27, 2022, the low-pressure flare guppy system malfunctioned, causing approximately 0.05 bbls of crude oil to exit the flare and ignite. The fire extinguished by itself, and no recoverable fluids remained. XTO reported the release via email to the NMOCD on December 28, 2022 and submitted a Form C-141 on January 6, 2023. The release was assigned Incident Number NAPP2300641362.

Please note the location of the release given on the original C-141 for Incident Numbers NAPP2300448092 and NAPP2300641362 has been corrected on the Final Closure C-141. All three release areas overlapped near the low-pressure flare and were addressed concurrently.

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 desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on a recent soil boring drilled for determination of regional groundwater depth. On January 5, 2021, a soil boring permitted by New Mexico Office of the State Engineer (NMOSE file number C-04494) was completed approximately 0.35 miles northwest of the Site utilizing the combination of a truck-mounted hollow-stem auger rig and a sonic drilling rig. Soil boring C-04494 was drilled to a depth of 105 feet bgs. A field geologist logged and described soils continuously. No moisture or groundwater was encountered during drilling activities. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater beneath the Site is greater than 105 feet bgs. The borehole was properly abandoned with drill cuttings and hydrated bentonite chips. The Well Log is included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a seasonal dry wash, located approximately 323 feet south 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 (medium potential karst designation area). All 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
- TPH: 2,500 mg/kg
- Chloride: 20,000 mg/kg

SITE ASSESSMENT AND DELINEATION ACTIVITIES

On February 10, 2023, Site assessment and delineation activities were conducted by Ensolum to evaluate the release extent based on information provided on the Form C-141 and visual observations. One pothole (PH01) was advanced by use of heavy equipment within the release extent to assess the vertical extent of the release. Two discrete delineation soil samples were collected from the pothole at depths of 0.5 feet bgs and 1-foot bgs. Four discrete delineation soil samples (SS01 through SS04) were collected from a depth of 0.5 feet bgs to assess 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. The release extent and delineation soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Field screening results on all delineation soil samples collected indicated no impacts to soil; however, surficial staining from the fire was scraped and removed from the Site by use of heavy equipment and hand tools. Field screening results and observations for the pothole

was logged on lithologic/soil sampling log, which is included in Appendix B. Photographic documentation was completed during the Site visit and 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 procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following constituents of concern (COC): 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. Soil samples delivered to the laboratory the same day they were collected may not have equilabrated to 6 degrees Celcius required for shipment and long term storage, but are considered to have been received in acceptable condition by the laboratory.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results indicated COC concentrations for all delineation soil samples were in compliance with the Site Closure Criteria and the most stringent Table I Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

CLOSURE REQUEST

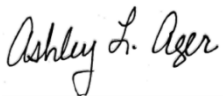
Site assessment and delineation activities were conducted at the Site to assess for the presence or absence of impacted soil resulting from a release of condensate that occurred on December 23, 2022, and two releases of crude oil occurring on December 26, 2022 and December 27, 2022, all of which resulted in a flare fire. Laboratory analytical results for all delineation soil samples indicated COC concentrations were compliant with the Site Closure Criteria and the most stringent Table I Closure Criteria. Following delineation activities, surface scraping was completed to remove surficial staining caused by the fires.

Depth to groundwater has been estimated to be greater than 100 feet bgs and no other sensitive receptors were identified near the release extents. Based on laboratory analytical results compliant with Closure Criteria, no further remediation was required. As such, XTO respectfully requests closure for Incident Numbers NAPP2300441385, NAPP2300448092, and NAPP2300641362.

If you have any questions or comments, please contact Ms. Tacoma Morrissey at (337) 257-8307 or tmorrissey@ensolum.com.

Sincerely,
Ensolum, LLC

Benjamin J. Belill
Project Geologist



Ashley L. Ager, M.S., P.G.
Principal

cc: Garrett Green, XTO
Shelby Pennington, XTO
SLO

Appendices:

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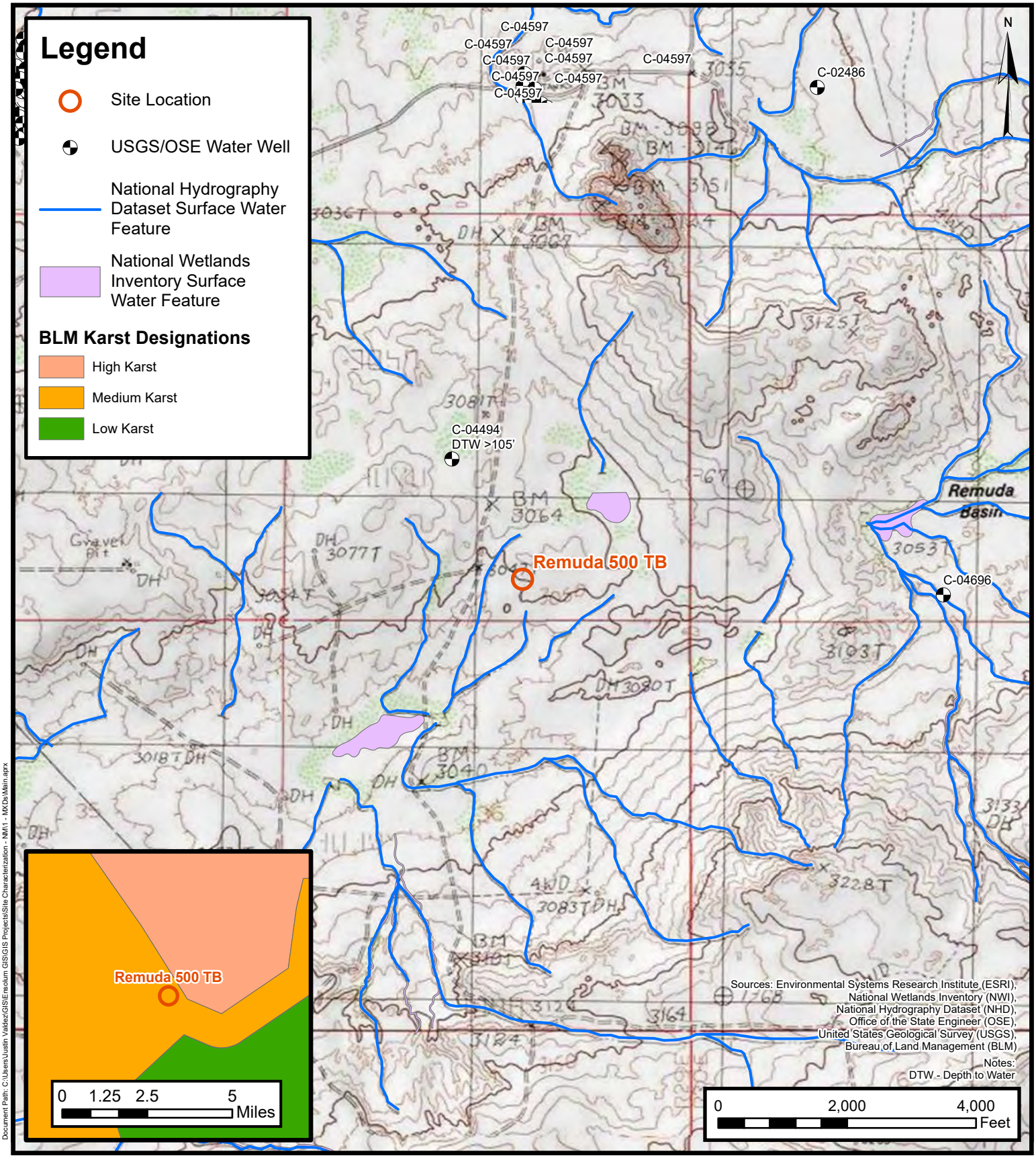
FIGURES



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Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

Remuda 500 TB
XTO ENERGY, INC
Incident Numbers: NAPP2300441385, NAPP2300448092, NAPP2300641362
Unit O, Sec 25, T23S, R29E
Eddy County, New Mexico

FIGURE

1

Document Path: C:\Users\Justin Valdez\GIS\Ensolum GIS\GIS Projects\Site Characterization - NM\1 - MXDs\Main.aprx

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Environmental, Engineering and Hydrogeologic Consultants

Delineation Soil Sample Locations Map

Remuda 500 TB
XTO ENERGY, INC
Incident Numbers: NAPP2300441385, NAPP2300448092, NAPP2300641362
Unit O, Sec 25, T23S, R29E
Eddy County, New Mexico

FIGURE
2

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
REMUDA 500 TB
XTO ENERGY, INC
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 I Closure Criteria (NMAC 19.15.29)			**10**	**50**	**NE**	**NE**	**NE**	**1,000**	**2,500**	**20,000**
Delineation Soil Samples										
SS01	02/10/2023	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	29.5
SS02	02/10/2023	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	24.8
SS03	02/10/2023	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	48.5
SS04	02/10/2023	0.5	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	24.0
PH01	02/10/2023	0.5	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<49.9	120
PH01A	02/10/2023	1	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	127

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 I Closure Criteria
GRO: Gasoline Range Organics
DRO: Diesel Range Organics
ORO: Oil Range Organics
TPH: Total Petroleum Hydrocarbon
NMAC: New Mexico Administrative Code

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APPENDIX A

Referenced Well Records

WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220	BH or PH Name: BH01 (C-04494)	Date: 11/18/2020, 12/02/20, 01/05/2021
	Site Name:	Remuda North 25 Observation Well
	RP or Incident Numbe	
	LTE Job Number:	TE012919039
LITHOLOGIC / SOIL SAMPLING LOG	Logged By BB, LAD, FS	Method: Hollow Stem Auger, sonic
Lat/Long:	Field Screening:	Hole Diameter: 6.25", 4.25" / Total Depth: 105'

Comments:
Lithology remarks only. No field screenings: Dry hole

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D			N			1	SP-SC	0-1' : SAND, dry, brown, poorly graded, fine grain, Clay (10% clay), some roots, no stain, no odor
						2		
						3		
						4		1-4' : SAND, dry, reddish-light brown, poorly graded, very fine - fine grain, some rounded caliche pebbles, no stain, no odor
D			N			5	CCHE	
						6		4-9' : CALICHE, dry, light brown-tan, poorly consolidated, sub-rounded caliche pebbles and gravel, very silty, gradational
						7		
						8		9-14' : Abundent sub-round caliche gravel
						9		14-19' : Some sub-angular caliche gravel and pebbles
						10		19-24' : Abundant sub-angular caliche gravel and pebbles, moderately consolidated
						11		
						12		
						13		
						14		
						15		
						16		
						17		
						18		
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						21		
						22		
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						24		
D			N			25	CL	

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: BH01 (C-04494)	Date: 11/18/2020, 12/02/20, 01/05/2021
Site Name: Remuda North 25 Observation Well	
RP or Incident Numbe	
LTE Job Number: TE012919039	
Logged By BB, LAD, FS	Method: Hollow Stem Auger, sonic
Lat/Long:	Field Screening:
Hole Diameter: 6.25", 4.25"	Total Depth: 105'

LITHOLOGIC / SOIL SAMPLING LOG

Comments:
Lithology remarks only. No field screenings: Dry hole

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D			N			26	CL	24-39' : MUDSTONE, dry, reddish-brown, low plasticity, well consolidated, cohesive, trace caliche sub-angular pebbles, no tain, no odor, sharp transition
						27		
						28		
						29		34-39' : Sub-angular calcium carbonate gravel with dissolution features (1-3mm), tan-light brown
						30		At 39' : Begin air rotory (4.25")
						31		39-42' : DOLOMETIC LIMESTONE, tan-light brown, dry, well consolidated, with dissolution features (1-3mm), sharp, no stain, no odor, light to moderate reaction with HCl
						32		
						33		42-45' : Some light gray dolomite with trace dissolution features (>1mm)
						34		At 48' : Stop due to air rotory refusal (11/18/20)
						35		48-56' : Advance borehole with new air rotary bit (12/02/20), DOLOMITE, white, well consolidated, dark gray-black banding, no stain , no odor
						36		
						37		
						38		
						39		
D			N			40	DOL	
						41		
						42		
						43		
						44		
						45		
						46		
						47		
						48		Refusal on 11/18/20
						49		Restart borehole on 12/02/20
						50		

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: BH01 (C-04494)	Date: 11/18/2020. 12/02/2020, 1/5/2021
Site Name: Remuda North 25 Observation Well	
RP or Incident Number:	
LTE Job Number: TE012919039	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By BB, LAD, FS / Method: Hollow Stem Auger, sonic
Lat/Long: / Field Screening:	Hole Diameter: 6.25", 4.25" / Total Depth: 105'

Comments:
Lithologic log only, no field screenings

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						51	DOL	48-56' : Advanced borehole with new air rotary bit (12/02/20), DOLOMITE, white, well consolidated, dark gray- banding, no stain no odor
						52		
						53		
						54		
						55		
						56		At 56' : Restarted borehole on 1/5/2021 with sonic rig
						57		56-65' : DOLOMITE, dry, light gray-gray, well consolidated, some calcium crystalline veins (<1mm), some dissolution features (2mm) with fine calcite crystalline, trace orange oxidation staining within dissolution features, no stain, no odor
						58		
						59		62' : Brown-pale yellow coarse crystalline dolomitic limestone stringer (2cm)
						60		63-65' : Abundant calcite crystalline veins (<1mm), pale green-gray, poorly consolidated
						61		
						62		65-69' : MUDSTONE, moist, reddish brown, poorly consolidated, high plasticity, cohesive, abundant coarse crystalline gypsum, few pale green-gray mottling, no stain, no odor
						63		
						64		69-81' : GYPSUM with Anhydrite, dry, greenish gray, some pale yellow, well consolidated, finr crystalline, 20% anhydrite, no stain, no odor
D			N			65	CH-S	
						66		
						67		
						68		
						69	GYP	
D			N			70		
						71		
						72		
						73		
						74		
						75		

WSP USA
508 West Stevens Street
Carlsbad, New Mexico 88220

BH or PH Name: BH01 (C-04494)	Date: 11/18/2020. 12/02/2020, 1/5/2021
Site Name: Remuda North 25 Observation Well	
RP or Incident Number:	
LTE Job Number: TE012919039	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By BB, LAD, FS / Method: Hollow Stem Auger, sonic
Lat/Long: / Field Screening:	Hole Diameter: 6.25", 4.25" / Total Depth: 105'

Comments:
Lithologic log only, no field screenings

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
						76	GYP	69-81' : GYPSUM with Anhydrite, dry, greenish gray, some pale yellow, well consolidated, finr crystalline, 20% anhydrite, no stain, no odor
						77		
						78		81-98' : MUDSTONE, moist, dark reddish brown, moderately consolidated, high plasticity, cohesive, trace coarse crystalline gypsum inclusions, no stain, no odor
						79		
						80		85-86.5' : greenish-gray well consolidated coarse crystalline gypsum/anhydrite stringer
						81		
D			N			82	CH-S	90-98' : Some fine grain brown sand
						83		At 97' : dark gray-gray gyspum stringer (4cm)
						84		98-99.5' : GYPSUM, dark gray-gray, some brown, dry, well consolidated, fine-coarse crystalline, no stain, no odor
						85		99.5-105' : Sandy SILTSTONE, moist, brown, some gray-dark gray, poorly consolidated, 20% very fine grain sand, no stain, no odor
						86		
						87		
						88		
						89		
						90		
						91		
						92		
						93		
						94		
						95		
						96		
						97		
						98		
D			N			99	GYP	
D			N			100	ML-S	

WSP USA 508 West Stevens Street Carlsbad, New Mexico 88220	BH or PH Name: BH01 (C-04494)	Date: 11/18/2020. 12/02/2020, 1/5/2021
	Site Name: Remuda North 25 Observation Well	
	RP or Incident Number:	
	LTE Job Number: TE012919039	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By BB, LAD, FS	Method: Hollow Stem Auger, sonic
Lat/Long:	Field Screening:	Hole Diameter: 6.25", 4.25" / Total Depth: 105'

Comments:
Lithologic log only, no field screenings

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample #	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithology/Remarks
D			N			101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125	ML-S	99.5-105' : Sandy SILTSTONE, moist, brown, some gray-dark gray, poorly consolidated, 20% very fine grain sand, no stain, no odor At 102' : Thin (<1mm) laminated black/gray well consolidated shale stringer (4cm thick) TD @ 105' bgs (1/5/2021)

ENSOLUM

APPENDIX B

Lithologic Soil Sampling Logs

ENSOLUM

Sample Name: PH01	Date: 2/10/2023	
Site Name: Remuda 500 TB		
Incident Number: NAPP2300441385, NAPP2300448092, NAPP2300641362		
Job Number: 03C1558151		
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Connor Whitman	Method: Backhoe
Coordinates: 32.229373,-103.93697	Hole Diameter: N/A	Total Depth: 1' bgs

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 and 40% correction factor added to chloride field screening results.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	<168	0.1	N	PH01	0.5	0	CCHE	0-1', CALICHE, moist, tan-light brown, unconsolidated fill, light brown-brown staining, no odor.
D	<168	0.1	N	PH01A	1	1	TD	Total Depth at 1-foot bgs.

ENSOLUM

APPENDIX C

Photographic Log

ENSOLUM

Photographic Log
XTO Energy, Inc
Remuda 500 TB
NAPP2300441385, NAPP2300448092, & NAPP2300641362

Photograph 1 Date: 02/10/2023
Description: Release extent area.
View: West

Photograph 2 Date: 02/10/2023
Description: Delineation activities, PH01.
View: West

Photograph 3 Date: 02/10/2023
Description: Surface scraping activities.
View: West

Photograph 4 Date: 02/10/2023
Description: Surface scraping activities.
View: East

ENSOLUM

APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ben Belill
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

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JOB DESCRIPTION

Remuda 500 CTB
SDG NUMBER 03C1558151

JOB NUMBER

890-4089-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

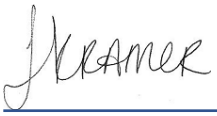
my EOL

Eurofins Carlsbad

Job Notes

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

Client: Ensolum
Project/Site: Remuda 500 CTB

Laboratory Job ID: 890-4089-1
SDG: 03C1558151

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Remuda 500 CTB

Job ID: 890-4089-1
SDG: 03C1558151

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
*1	LCS/LCSD RPD exceeds control limits.
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: Remuda 500 CTB

Job ID: 890-4089-1
SDG: 03C1558151

Job ID: 890-4089-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4089-1

Receipt
The samples were received on 2/13/2023 10:38 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 5.4°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: PH01 (890-4089-1), PH01A (890-4089-2), SS01 (890-4089-3), SS02 (890-4089-4), SS03 (890-4089-5) and SS04 (890-4089-6).

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-46342 and analytical batch 880-46568 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.

GC Semi VOA
Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-46409 and analytical batch 880-46479 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

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: Remuda 500 CTB

Job ID: 890-4089-1
SDG: 03C1558151

Client Sample ID: PH01

Date Collected: 02/10/23 09:30
Date Received: 02/13/23 10:38
Sample Depth: 0.5

Lab Sample ID: 890-4089-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U F1 F2	0.00202		mg/Kg		02/14/23 16:34	02/17/23 14:30	1
Toluene	<0.00202	U	0.00202		mg/Kg		02/14/23 16:34	02/17/23 14:30	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		02/14/23 16:34	02/17/23 14:30	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		02/14/23 16:34	02/17/23 14:30	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		02/14/23 16:34	02/17/23 14:30	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		02/14/23 16:34	02/17/23 14:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*02/14/23 16:34*	*02/17/23 14:30*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*02/14/23 16:34*	*02/17/23 14:30*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			02/20/23 14:15	1

Method: SW846 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			02/19/23 12:25	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	<49.9	U	49.9		mg/Kg		02/15/23 11:56	02/17/23 00:15	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9		mg/Kg		02/15/23 11:56	02/17/23 00:15	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/15/23 11:56	02/17/23 00:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*02/15/23 11:56*	*02/17/23 00:15*	*1*
o-Terphenyl	*112*		*70 - 130*	*02/15/23 11:56*	*02/17/23 00:15*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**120**		4.98		mg/Kg			02/15/23 20:49	1

Client Sample ID: PH01A

Date Collected: 02/10/23 13:10
Date Received: 02/13/23 10:38
Sample Depth: 1

Lab Sample ID: 890-4089-2
Matrix: Solid

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		02/14/23 16:34	02/17/23 14:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/14/23 16:34	02/17/23 14:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/14/23 16:34	02/17/23 14:51	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		02/14/23 16:34	02/17/23 14:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/14/23 16:34	02/17/23 14:51	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		02/14/23 16:34	02/17/23 14:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*02/14/23 16:34*	*02/17/23 14:51*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Remuda 500 CTB

Job ID: 890-4089-1
SDG: 03C1558151

Client Sample ID: PH01A

Date Collected: 02/10/23 13:10
Date Received: 02/13/23 10:38
Sample Depth: 1

Lab Sample ID: 890-4089-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*02/14/23 16:34*	*02/17/23 14:51*	*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			02/20/23 14:15	1

Method: SW846 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			02/19/23 12:25	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	<49.9	U	49.9	mg/Kg		02/15/23 11:56	02/17/23 00:37	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9	mg/Kg		02/15/23 11:56	02/17/23 00:37	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		02/15/23 11:56	02/17/23 00:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*02/15/23 11:56*	*02/17/23 00:37*	*1*
o-Terphenyl	*90*		*70 - 130*	*02/15/23 11:56*	*02/17/23 00:37*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**127**		5.00	mg/Kg			02/15/23 20:53	1

Client Sample ID: SS01

Date Collected: 02/10/23 10:05
Date Received: 02/13/23 10:38
Sample Depth: 0.5

Lab Sample ID: 890-4089-3
Matrix: Solid

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		02/14/23 16:34	02/17/23 15:11	1
Toluene	<0.00199	U	0.00199	mg/Kg		02/14/23 16:34	02/17/23 15:11	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		02/14/23 16:34	02/17/23 15:11	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		02/14/23 16:34	02/17/23 15:11	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		02/14/23 16:34	02/17/23 15:11	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		02/14/23 16:34	02/17/23 15:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*02/14/23 16:34*	*02/17/23 15:11*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*02/14/23 16:34*	*02/17/23 15:11*	*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			02/20/23 14:15	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			02/19/23 12:25	1

Client Sample Results

Client: Ensolum
Project/Site: Remuda 500 CTB

Job ID: 890-4089-1
SDG: 03C1558151

Client Sample ID: SS01

Lab Sample ID: 890-4089-3
Matrix: Solid
Date Collected: 02/10/23 10:05
Date Received: 02/13/23 10:38
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	<50.0	U	50.0		mg/Kg		02/15/23 11:56	02/17/23 01:00	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		02/15/23 11:56	02/17/23 01:00	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/15/23 11:56	02/17/23 01:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*71*		*70 - 130*	*02/15/23 11:56*	*02/17/23 01:00*	*1*
o-Terphenyl	*81*		*70 - 130*	*02/15/23 11:56*	*02/17/23 01:00*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**29.5**		5.05		mg/Kg			02/15/23 20:58	1

Client Sample ID: SS02

Lab Sample ID: 890-4089-4
Matrix: Solid
Date Collected: 02/10/23 10:10
Date Received: 02/13/23 10:38
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		02/14/23 16:34	02/17/23 15:32	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/14/23 16:34	02/17/23 15:32	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/14/23 16:34	02/17/23 15:32	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/14/23 16:34	02/17/23 15:32	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/14/23 16:34	02/17/23 15:32	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/14/23 16:34	02/17/23 15:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*02/14/23 16:34*	*02/17/23 15:32*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*02/14/23 16:34*	*02/17/23 15:32*	*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			02/20/23 14:15	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			02/19/23 12:25	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		02/15/23 11:56	02/17/23 01:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0		mg/Kg		02/15/23 11:56	02/17/23 01:45	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/15/23 11:56	02/17/23 01:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*02/15/23 11:56*	*02/17/23 01:45*	*1*
o-Terphenyl	*104*		*70 - 130*	*02/15/23 11:56*	*02/17/23 01:45*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Remuda 500 CTB

Job ID: 890-4089-1
SDG: 03C1558151

Client Sample ID: SS02

Lab Sample ID: 890-4089-4
Matrix: Solid
Date Collected: 02/10/23 10:10
Date Received: 02/13/23 10:38
Sample Depth: 0.5

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	24.8		4.98		mg/Kg			02/15/23 21:02	1

Client Sample ID: SS03

Lab Sample ID: 890-4089-5
Matrix: Solid
Date Collected: 02/10/23 10:15
Date Received: 02/13/23 10:38
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		02/14/23 16:34	02/17/23 15:52	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/14/23 16:34	02/17/23 15:52	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/14/23 16:34	02/17/23 15:52	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/14/23 16:34	02/17/23 15:52	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/14/23 16:34	02/17/23 15:52	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/14/23 16:34	02/17/23 15:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*	*02/14/23 16:34*	*02/17/23 15:52*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*02/14/23 16:34*	*02/17/23 15:52*	*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			02/20/23 14:15	1

Method: SW846 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			02/19/23 12:25	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	<49.9	U	49.9		mg/Kg		02/15/23 11:56	02/17/23 02:07	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9		mg/Kg		02/15/23 11:56	02/17/23 02:07	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		02/15/23 11:56	02/17/23 02:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*92*		*70 - 130*	*02/15/23 11:56*	*02/17/23 02:07*	*1*
o-Terphenyl	*103*		*70 - 130*	*02/15/23 11:56*	*02/17/23 02:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	48.5		5.05		mg/Kg			02/15/23 21:17	1

Client Sample Results

Client: Ensolum
Project/Site: Remuda 500 CTB

Job ID: 890-4089-1
SDG: 03C1558151

Client Sample ID: SS04

Date Collected: 02/10/23 10:20
Date Received: 02/13/23 10:38
Sample Depth: 0.5

Lab Sample ID: 890-4089-6

Matrix: Solid

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		02/14/23 16:34	02/17/23 16:38	1
Toluene	<0.00199	U	0.00199		mg/Kg		02/14/23 16:34	02/17/23 16:38	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		02/14/23 16:34	02/17/23 16:38	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		02/14/23 16:34	02/17/23 16:38	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		02/14/23 16:34	02/17/23 16:38	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		02/14/23 16:34	02/17/23 16:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*02/14/23 16:34*	*02/17/23 16:38*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*02/14/23 16:34*	*02/17/23 16:38*	*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			02/20/23 14:15	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			02/19/23 12:25	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		02/15/23 11:56	02/17/23 02:30	1
Diesel Range Organics (Over C10-C28)	<49.8	U *1	49.8		mg/Kg		02/15/23 11:56	02/17/23 02:30	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		02/15/23 11:56	02/17/23 02:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*02/15/23 11:56*	*02/17/23 02:30*	*1*
o-Terphenyl	*90*		*70 - 130*	*02/15/23 11:56*	*02/17/23 02:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**24.0**		4.96		mg/Kg			02/15/23 21:21	1

Surrogate Summary

Client: Ensolum
Project/Site: Remuda 500 CTB

Job ID: 890-4089-1
SDG: 03C1558151

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)
890-4089-1	PH01	94	90
890-4089-1 MS	PH01	126	114
890-4089-1 MSD	PH01	132 S1+	104
890-4089-2	PH01A	88	84
890-4089-3	SS01	97	88
890-4089-4	SS02	97	88
890-4089-5	SS03	98	90
890-4089-6	SS04	97	87
LCS 880-46342/1-A	Lab Control Sample	109	105
LCSD 880-46342/2-A	Lab Control Sample Dup	116	103
MB 880-46342/5-A	Method Blank	76	96

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)
880-24624-A-7-D MS	Matrix Spike	85	91
880-24624-A-7-E MSD	Matrix Spike Duplicate	99	107
890-4089-1	PH01	101	112
890-4089-2	PH01A	81	90
890-4089-3	SS01	71	81
890-4089-4	SS02	93	104
890-4089-5	SS03	92	103
890-4089-6	SS04	83	90
LCS 880-46409/2-A	Lab Control Sample	98	113
LCSD 880-46409/3-A	Lab Control Sample Dup	85	99
MB 880-46409/1-A	Method Blank	85	108

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Remuda 500 CTB

Job ID: 890-4089-1
SDG: 03C1558151

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-46342/5-A
Matrix: Solid
Analysis Batch: 46568

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 46342

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		02/14/23 16:34	02/17/23 14:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		02/14/23 16:34	02/17/23 14:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		02/14/23 16:34	02/17/23 14:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		02/14/23 16:34	02/17/23 14:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		02/14/23 16:34	02/17/23 14:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		02/14/23 16:34	02/17/23 14:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*76*		*70 - 130*	*02/14/23 16:34*	*02/17/23 14:09*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*02/14/23 16:34*	*02/17/23 14:09*	*1*

Lab Sample ID: LCS 880-46342/1-A
Matrix: Solid
Analysis Batch: 46568

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 46342

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1214		mg/Kg		121	70 - 130		
Toluene			0.100	0.1106		mg/Kg		111	70 - 130		
Ethylbenzene			0.100	0.1137		mg/Kg		114	70 - 130		
m-Xylene & p-Xylene			0.200	0.2456		mg/Kg		123	70 - 130		
o-Xylene			0.100	0.1219		mg/Kg		122	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 880-46342/2-A
Matrix: Solid
Analysis Batch: 46568

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 46342

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1054		mg/Kg		105	70 - 130	14	35
Toluene			0.100	0.1042		mg/Kg		104	70 - 130	6	35
Ethylbenzene			0.100	0.1073		mg/Kg		107	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.2301		mg/Kg		115	70 - 130	6	35
o-Xylene			0.100	0.1157		mg/Kg		116	70 - 130	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-4089-1 MS
Matrix: Solid
Analysis Batch: 46568

Client Sample ID: PH01
Prep Type: Total/NA
Prep Batch: 46342

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00202	U F1 F2	0.100	0.1523	F1	mg/Kg		152	70 - 130		
Toluene	<0.00202	U	0.100	0.09819		mg/Kg		98	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Remuda 500 CTB

Job ID: 890-4089-1
SDG: 03C1558151

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

Lab Sample ID: 890-4089-1 MS
Matrix: Solid
Analysis Batch: 46568

Client Sample ID: PH01
Prep Type: Total/NA
Prep Batch: 46342

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U	0.100	0.09453		mg/Kg		94	70 - 130
m-Xylene & p-Xylene	<0.00403	U	0.200	0.2043		mg/Kg		102	70 - 130
o-Xylene	<0.00202	U	0.100	0.1039		mg/Kg		104	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*126*		*70 - 130*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*

Lab Sample ID: 890-4089-1 MSD
Matrix: Solid
Analysis Batch: 46568

Client Sample ID: PH01
Prep Type: Total/NA
Prep Batch: 46342

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U F1 F2	0.0990	0.1032	F2	mg/Kg		104	70 - 130	38	35
Toluene	<0.00202	U	0.0990	0.09209		mg/Kg		93	70 - 130	6	35
Ethylbenzene	<0.00202	U	0.0990	0.09634		mg/Kg		97	70 - 130	2	35
m-Xylene & p-Xylene	<0.00403	U	0.198	0.2071		mg/Kg		105	70 - 130	1	35
o-Xylene	<0.00202	U	0.0990	0.1053		mg/Kg		106	70 - 130	1	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*132*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

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

Lab Sample ID: MB 880-46409/1-A
Matrix: Solid
Analysis Batch: 46479

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 46409

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		02/15/23 11:56	02/16/23 19:48	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		02/15/23 11:56	02/16/23 19:48	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		02/15/23 11:56	02/16/23 19:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*02/15/23 11:56*	*02/16/23 19:48*	*1*
o-Terphenyl	*108*		*70 - 130*	*02/15/23 11:56*	*02/16/23 19:48*	*1*

Lab Sample ID: LCS 880-46409/2-A
Matrix: Solid
Analysis Batch: 46479

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 46409

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1045		mg/Kg		104	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1061		mg/Kg		106	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Remuda 500 CTB

Job ID: 890-4089-1
SDG: 03C1558151

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

Lab Sample ID: LCS 880-46409/2-A
Matrix: Solid
Analysis Batch: 46479

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 46409

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: LCSD 880-46409/3-A
Matrix: Solid
Analysis Batch: 46479

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 46409

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	893.1		mg/Kg		89	70 - 130	16	20
Diesel Range Organics (Over C10-C28)			1000	849.0	*1	mg/Kg		85	70 - 130	22	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	85		70 - 130
o-Terphenyl	99		70 - 130

Lab Sample ID: 880-24624-A-7-D MS
Matrix: Solid
Analysis Batch: 46479

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 46409

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	1000	1023		mg/Kg		98	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U *1	1000	940.4		mg/Kg		92	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	85		70 - 130
o-Terphenyl	91		70 - 130

Lab Sample ID: 880-24624-A-7-E MSD
Matrix: Solid
Analysis Batch: 46479

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 46409

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	1000	1044		mg/Kg		100	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	<49.9	U *1	1000	1103		mg/Kg		109	70 - 130	16	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	107		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Remuda 500 CTB

Job ID: 890-4089-1
SDG: 03C1558151

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-46319/1-A
Matrix: Solid
Analysis Batch: 46460

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			02/15/23 19:44	1

Lab Sample ID: LCS 880-46319/2-A
Matrix: Solid
Analysis Batch: 46460

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	244.1		mg/Kg		98	90 - 110		

Lab Sample ID: LCSD 880-46319/3-A
Matrix: Solid
Analysis Batch: 46460

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	256.0		mg/Kg		102	90 - 110	5	20

Lab Sample ID: 890-4089-4 MS
Matrix: Solid
Analysis Batch: 46460

Client Sample ID: SS02
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	24.8		249	262.3		mg/Kg		95	90 - 110		

Lab Sample ID: 890-4089-4 MSD
Matrix: Solid
Analysis Batch: 46460

Client Sample ID: SS02
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	24.8		249	252.9		mg/Kg		92	90 - 110	4	20

QC Association Summary

Client: Ensolum
Project/Site: Remuda 500 CTB

Job ID: 890-4089-1
SDG: 03C1558151

GC VOA

Prep Batch: 46342

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4089-1	PH01	Total/NA	Solid	5035	
890-4089-2	PH01A	Total/NA	Solid	5035	
890-4089-3	SS01	Total/NA	Solid	5035	
890-4089-4	SS02	Total/NA	Solid	5035	
890-4089-5	SS03	Total/NA	Solid	5035	
890-4089-6	SS04	Total/NA	Solid	5035	
MB 880-46342/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-46342/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-46342/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4089-1 MS	PH01	Total/NA	Solid	5035	
890-4089-1 MSD	PH01	Total/NA	Solid	5035	

Analysis Batch: 46568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4089-1	PH01	Total/NA	Solid	8021B	46342
890-4089-2	PH01A	Total/NA	Solid	8021B	46342
890-4089-3	SS01	Total/NA	Solid	8021B	46342
890-4089-4	SS02	Total/NA	Solid	8021B	46342
890-4089-5	SS03	Total/NA	Solid	8021B	46342
890-4089-6	SS04	Total/NA	Solid	8021B	46342
MB 880-46342/5-A	Method Blank	Total/NA	Solid	8021B	46342
LCS 880-46342/1-A	Lab Control Sample	Total/NA	Solid	8021B	46342
LCSD 880-46342/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	46342
890-4089-1 MS	PH01	Total/NA	Solid	8021B	46342
890-4089-1 MSD	PH01	Total/NA	Solid	8021B	46342

Analysis Batch: 46742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4089-1	PH01	Total/NA	Solid	Total BTEX	
890-4089-2	PH01A	Total/NA	Solid	Total BTEX	
890-4089-3	SS01	Total/NA	Solid	Total BTEX	
890-4089-4	SS02	Total/NA	Solid	Total BTEX	
890-4089-5	SS03	Total/NA	Solid	Total BTEX	
890-4089-6	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 46409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4089-1	PH01	Total/NA	Solid	8015NM Prep	
890-4089-2	PH01A	Total/NA	Solid	8015NM Prep	
890-4089-3	SS01	Total/NA	Solid	8015NM Prep	
890-4089-4	SS02	Total/NA	Solid	8015NM Prep	
890-4089-5	SS03	Total/NA	Solid	8015NM Prep	
890-4089-6	SS04	Total/NA	Solid	8015NM Prep	
MB 880-46409/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-46409/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-46409/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-24624-A-7-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-24624-A-7-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: Remuda 500 CTB

Job ID: 890-4089-1
SDG: 03C1558151

GC Semi VOA

Analysis Batch: 46479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4089-1	PH01	Total/NA	Solid	8015B NM	46409
890-4089-2	PH01A	Total/NA	Solid	8015B NM	46409
890-4089-3	SS01	Total/NA	Solid	8015B NM	46409
890-4089-4	SS02	Total/NA	Solid	8015B NM	46409
890-4089-5	SS03	Total/NA	Solid	8015B NM	46409
890-4089-6	SS04	Total/NA	Solid	8015B NM	46409
MB 880-46409/1-A	Method Blank	Total/NA	Solid	8015B NM	46409
LCS 880-46409/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	46409
LCSD 880-46409/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	46409
880-24624-A-7-D MS	Matrix Spike	Total/NA	Solid	8015B NM	46409
880-24624-A-7-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	46409

Analysis Batch: 46667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4089-1	PH01	Total/NA	Solid	8015 NM	
890-4089-2	PH01A	Total/NA	Solid	8015 NM	
890-4089-3	SS01	Total/NA	Solid	8015 NM	
890-4089-4	SS02	Total/NA	Solid	8015 NM	
890-4089-5	SS03	Total/NA	Solid	8015 NM	
890-4089-6	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 46319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4089-1	PH01	Soluble	Solid	DI Leach	
890-4089-2	PH01A	Soluble	Solid	DI Leach	
890-4089-3	SS01	Soluble	Solid	DI Leach	
890-4089-4	SS02	Soluble	Solid	DI Leach	
890-4089-5	SS03	Soluble	Solid	DI Leach	
890-4089-6	SS04	Soluble	Solid	DI Leach	
MB 880-46319/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-46319/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-46319/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4089-4 MS	SS02	Soluble	Solid	DI Leach	
890-4089-4 MSD	SS02	Soluble	Solid	DI Leach	

Analysis Batch: 46460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4089-1	PH01	Soluble	Solid	300.0	46319
890-4089-2	PH01A	Soluble	Solid	300.0	46319
890-4089-3	SS01	Soluble	Solid	300.0	46319
890-4089-4	SS02	Soluble	Solid	300.0	46319
890-4089-5	SS03	Soluble	Solid	300.0	46319
890-4089-6	SS04	Soluble	Solid	300.0	46319
MB 880-46319/1-A	Method Blank	Soluble	Solid	300.0	46319
LCS 880-46319/2-A	Lab Control Sample	Soluble	Solid	300.0	46319
LCSD 880-46319/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	46319
890-4089-4 MS	SS02	Soluble	Solid	300.0	46319
890-4089-4 MSD	SS02	Soluble	Solid	300.0	46319

Lab Chronicle

Client: Ensolum
Project/Site: Remuda 500 CTB

Job ID: 890-4089-1
SDG: 03C1558151

Client Sample ID: PH01

Date Collected: 02/10/23 09:30
Date Received: 02/13/23 10:38

Lab Sample ID: 890-4089-1
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			4.96 g	5 mL	46342	02/14/23 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46568	02/17/23 14:30	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46742	02/20/23 14:15	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46667	02/19/23 12:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	46409	02/15/23 11:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46479	02/17/23 00:15	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	46319	02/14/23 13:16	KS	EET MID
Soluble	Analysis	300.0		1			46460	02/15/23 20:49	CH	EET MID

Client Sample ID: PH01A

Date Collected: 02/10/23 13:10
Date Received: 02/13/23 10:38

Lab Sample ID: 890-4089-2
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	46342	02/14/23 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46568	02/17/23 14:51	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46742	02/20/23 14:15	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46667	02/19/23 12:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	46409	02/15/23 11:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46479	02/17/23 00:37	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	46319	02/14/23 13:16	KS	EET MID
Soluble	Analysis	300.0		1			46460	02/15/23 20:53	CH	EET MID

Client Sample ID: SS01

Date Collected: 02/10/23 10:05
Date Received: 02/13/23 10:38

Lab Sample ID: 890-4089-3
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			5.02 g	5 mL	46342	02/14/23 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46568	02/17/23 15:11	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46742	02/20/23 14:15	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46667	02/19/23 12:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	46409	02/15/23 11:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46479	02/17/23 01:00	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	46319	02/14/23 13:16	KS	EET MID
Soluble	Analysis	300.0		1			46460	02/15/23 20:58	CH	EET MID

Client Sample ID: SS02

Date Collected: 02/10/23 10:10
Date Received: 02/13/23 10:38

Lab Sample ID: 890-4089-4
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			5.03 g	5 mL	46342	02/14/23 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46568	02/17/23 15:32	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46742	02/20/23 14:15	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Remuda 500 CTB

Job ID: 890-4089-1
SDG: 03C1558151

Client Sample ID: SS02

Lab Sample ID: 890-4089-4
Matrix: Solid
Date Collected: 02/10/23 10:10
Date Received: 02/13/23 10:38

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			46667	02/19/23 12:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	46409	02/15/23 11:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46479	02/17/23 01:45	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	46319	02/14/23 13:16	KS	EET MID
Soluble	Analysis	300.0		1			46460	02/15/23 21:02	CH	EET MID

Client Sample ID: SS03

Lab Sample ID: 890-4089-5
Matrix: Solid
Date Collected: 02/10/23 10:15
Date Received: 02/13/23 10:38

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	46342	02/14/23 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46568	02/17/23 15:52	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46742	02/20/23 14:15	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46667	02/19/23 12:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	46409	02/15/23 11:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46479	02/17/23 02:07	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	46319	02/14/23 13:16	KS	EET MID
Soluble	Analysis	300.0		1			46460	02/15/23 21:17	CH	EET MID

Client Sample ID: SS04

Lab Sample ID: 890-4089-6
Matrix: Solid
Date Collected: 02/10/23 10:20
Date Received: 02/13/23 10:38

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	46342	02/14/23 16:34	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	46568	02/17/23 16:38	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			46742	02/20/23 14:15	AJ	EET MID
Total/NA	Analysis	8015 NM		1			46667	02/19/23 12:25	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	46409	02/15/23 11:56	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	46479	02/17/23 02:30	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	46319	02/14/23 13:16	KS	EET MID
Soluble	Analysis	300.0		1			46460	02/15/23 21:21	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: Remuda 500 CTB

Job ID: 890-4089-1
SDG: 03C1558151

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	T104704400-22-25	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: Remuda 500 CTB

Job ID: 890-4089-1
SDG: 03C1558151

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: Remuda 500 CTB

Job ID: 890-4089-1
SDG: 03C1558151

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4089-1	PH01	Solid	02/10/23 09:30	02/13/23 10:38	0.5
890-4089-2	PH01A	Solid	02/10/23 13:10	02/13/23 10:38	1
890-4089-3	SS01	Solid	02/10/23 10:05	02/13/23 10:38	0.5
890-4089-4	SS02	Solid	02/10/23 10:10	02/13/23 10:38	0.5
890-4089-5	SS03	Solid	02/10/23 10:15	02/13/23 10:38	0.5
890-4089-6	SS04	Solid	02/10/23 10:20	02/13/23 10:38	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:	Ben Belill	Bill to: (if different)	Garrett Green
Company Name:	Ensolum	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Green St.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	303-887-2946	Email:	Garrett.Green@ExxonMobil.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:	Remuda 500 CTB	Turn Around	☒ Routine ☐ Rush
Project Number:	03C1558151	Due Date:	
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Connor Whitman		
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	IR-08	
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)
PH01	S	2/10/23	9:30	.5'	G	1				
PH01A			1:10	1'		1				
SS01			10:05	.5		1				
SS02			10:10	.5		1				
SS03			10:15	.5		1				
SS04			10:20	.5		1				
									CLW	

890-4089 Chain of Custody

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

Incident ID:
NAPP2300441385,
NAPP2300448092,
NAPP2300641362

Cost Center:
1067601001

AFE:

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	Connor Whitman	Amanda Stuff	2-13-23 1038			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220
Phone 575-988-3199 Fax: 575-988-3199

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer, Jessica	Carrier Tracking No(s)	COC No: 890-1132 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Jessica Kramer@et.eurofinsus com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-4089-1
Address: 1211 W Florida Ave ,	Due Date Requested: 2/17/2023			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: remuda 500 ctb	Project #: 89000093			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A HCL, B NaOH, C Zn Acetate, D Nitric Acid, E NaHSO4, F MeOH, G Amchlor, H Ascorbic Acid, I Ice, J DI Water, K EDTA, L EDA, M Hexane, N None, O AsNaO2, P Na2O4S, Q Na2SO3, R Na2S2O3, S H2SO4, T TSP Dodecahydrate, U Acetone, V MCAA, W pH 4-5, Y Trizma, Z other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X						X	
PH01 (890-4089-1)	2/10/23	09 30 Mountain		Solid			X	X	X	X	X	1	
PH01A (890-4089-2)	2/10/23	13 10 Mountain		Solid			X	X	X	X	X	1	
SS01 (890-4089-3)	2/10/23	10 05 Mountain		Solid			X	X	X	X	X	1	
SS02 (890-4089-4)	2/10/23	10 10 Mountain		Solid			X	X	X	X	X	1	
SS03 (890-4089-5)	2/10/23	10 15 Mountain		Solid			X	X	X	X	X	1	
SS04 (890-4089-6)	2/10/23	10 20 Mountain		Solid			X	X	X	X	X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method analyte & accreditation compliance upon our subcontract laboratories This sample shipment is forwarded under chain-of-custody If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided Any changes to accreditation status should be brought to Eurofins Environment Testing South Central LLC attention immediately If all requested accreditations are current to date return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central LLC

Possible Hazard Identification: Unconfirmed	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time:	Method of Shipment:		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact: Δ Yes Δ No	Custody Seal No		Cooler Temperature(s) °C and Other Remarks		

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4089-1
SDG Number: 03C1558151

Login Number: 4089
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.	N/A	Refer to Job Narrative for details.
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: 890-4089-1
SDG Number: 03C1558151

Login Number: 4089
List Number: 2
Creator: Teel, Brianna

List Source: Eurofins Midland
List Creation: 02/14/23 12:17 PM

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.	True	
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").	True	

ENSOLUM

APPENDIX E

NMOCD Notifications

From: Enviro, OCD, EMNRD
To: Green, Garrett J; Enviro, OCD, EMNRD; Bratcher, Michael, EMNRD; Hamlet, Robert, EMNRD; Harimon, Jocelyn, EMNRD
Cc: Tacoma Morrissey; DelawareSpills /SM
Subject: RE: [EXTERNAL] XTO - Sampling Notification (Week of 2/6/23 - 2/10/23)
Date: Thursday, February 2, 2023 2:29:09 PM

[**EXTERNAL EMAIL**]

Garrett,

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

JH

Jocelyn Harimon ● Environmental Specialist
Environmental Bureau
EMNRD - Oil Conservation Division
1220 South St. Francis Drive | Santa Fe, NM 87505
(505)469-2821 | Jocelyn.Harimon@emnrd.nm.gov
http:// **www.emnrd.nm.gov**

From: Green, Garrett J <garrett.green@exxonmobil.com>
Sent: Thursday, February 2, 2023 12:13 PM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Cc: Tacoma Morrissey <tmorrissey@ensolum.com>; DelawareSpills /SM <DelawareSpills@exxonmobil.com>
Subject: [EXTERNAL] XTO - Sampling Notification (Week of 2/6/23 - 2/10/23)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

All,

XTO plans to complete final sampling activities at the following sites the week of Feb 6, 2023.

- ADU 641 / nAPP2302355577
- Remuda 500 / NAPP2300441385, NAPP2300448092, NAPP2300641362
- PLU 21 BD 125H / nAPP2229145683

Thank you,

Garrett Green
Environmental Coordinator
Delaware Business Unit
(575) 200-0729
Garrett.Green@ExxonMobil.com

XTO Energy, Inc.
3104 E. Greene Street | Carlsbad, NM 88220 | M: (575)200-0729

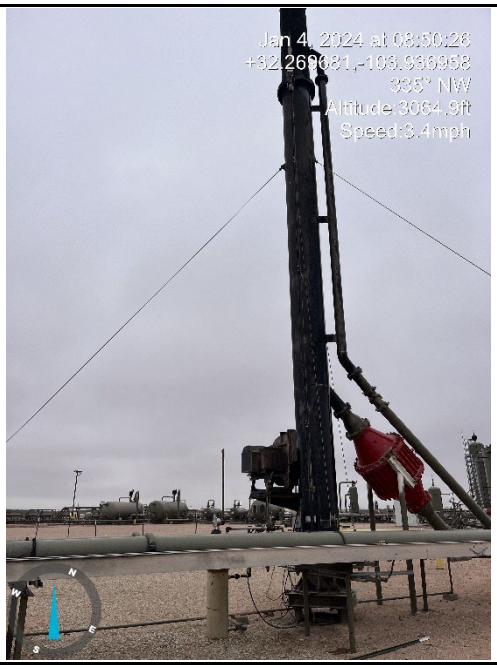
ENSOLUM

APPENDIX B

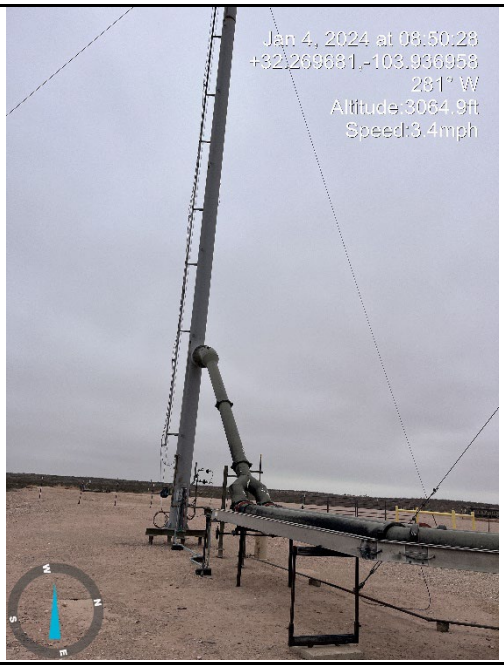
Photographic Log

ENSOLUM

Photographic Log
XTO Energy, Inc
Remuda 500 TB
NAPP2300441385, NAPP2300448092 & NAPP2300641362



Photograph 1 Date: 01/04/2024
Description: Soil sampling area
View: North-northwest



Photograph 2 Date: 01/04/2024
Description: Soil sampling area
View: West

Photograph 3 Date: 01/04/2024
Description: Soil sampling area
View: West-northwest

Photograph 4 Date: 01/04/2024
Description: Soil sampling area
View: North-northwest

ENSOLUM

APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ben Belill
Ensolum
601 N. Marienfeld St.
Suite 400
Midland, Texas 79701

Generated 1/15/2024 4:08:34 PM

JOB DESCRIPTION

REMUDA 500 CTB
03C1558151

JOB NUMBER

890-5903-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

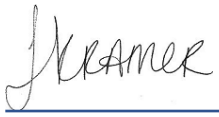
Eurofins Carlsbad

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



Generated
1/15/2024 4:08:34 PM

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

Client: Ensolum
Project/Site: REMUDA 500 CTB

Laboratory Job ID: 890-5903-1
SDG: 03C1558151

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: REMUDA 500 CTB

Job ID: 890-5903-1
SDG: 03C1558151

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
S1-	Surrogate recovery exceeds control limits, low 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: REMUDA 500 CTB

Job ID: 890-5903-1

Job ID: 890-5903-1 Eurofins Carlsbad

Job Narrative
890-5903-1

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 are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample 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 1/5/2024 4:13 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 0.4°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: FS 01 (890-5903-1), FS 02 (890-5903-2) and FS 03 (890-5903-3).

GC VOA
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-70509 and analytical batch 880-70625 was outside the control limits.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-70505 and analytical batch 880-70625 was outside the control limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCSD 880-70505/2-A). Evidence of matrix interferences is not obvious.

Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-70722 and analytical batch 880-70720 was outside the upper control limits.

Method 8021B: Surrogate recovery for the following sample was outside control limits: FS 01 (890-5903-1). 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
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-5904-A-1-F MS) and (890-5904-A-1-G MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-70539 and analytical batch 880-70525 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.

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: REMUDA 500 CTB

Job ID: 890-5903-1
SDG: 03C1558151

Client Sample ID: FS 01

Lab Sample ID: 890-5903-1
Matrix: Solid
Date Collected: 01/04/24 09:10
Date Received: 01/05/24 16:13
Sample Depth: 0.5'

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		01/12/24 08:25	01/12/24 21:43	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/12/24 08:25	01/12/24 21:43	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/12/24 08:25	01/12/24 21:43	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/12/24 08:25	01/12/24 21:43	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/12/24 08:25	01/12/24 21:43	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/12/24 08:25	01/12/24 21:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*362*	*S1+*	*70 - 130*	*01/12/24 08:25*	*01/12/24 21:43*	*1*
1,4-Difluorobenzene (Surr)	*155*	*S1+*	*70 - 130*	*01/12/24 08:25*	*01/12/24 21:43*	*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			01/12/24 21:43	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.5	U	49.5		mg/Kg			01/10/24 18:18	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	<49.5	U	49.5		mg/Kg		01/10/24 09:19	01/10/24 18:18	1
Diesel Range Organics (Over C10-C28)	<49.5	U	49.5		mg/Kg		01/10/24 09:19	01/10/24 18:18	1
OII Range Organics (Over C28-C36)	<49.5	U	49.5		mg/Kg		01/10/24 09:19	01/10/24 18:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*01/10/24 09:19*	*01/10/24 18:18*	*1*
o-Terphenyl	*78*		*70 - 130*	*01/10/24 09:19*	*01/10/24 18:18*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**68.6**		5.00		mg/Kg			01/10/24 21:36	1

Client Sample ID: FS 02

Lab Sample ID: 890-5903-2
Matrix: Solid
Date Collected: 01/04/24 09:15
Date Received: 01/05/24 16:13
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		01/09/24 16:57	01/12/24 11:13	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/09/24 16:57	01/12/24 11:13	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/09/24 16:57	01/12/24 11:13	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/09/24 16:57	01/12/24 11:13	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/09/24 16:57	01/12/24 11:13	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/09/24 16:57	01/12/24 11:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*01/09/24 16:57*	*01/12/24 11:13*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: REMUDA 500 CTB

Job ID: 890-5903-1
SDG: 03C1558151

Client Sample ID: FS 02

Date Collected: 01/04/24 09:15
Date Received: 01/05/24 16:13
Sample Depth: 0.5'

Lab Sample ID: 890-5903-2
Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*01/09/24 16:57*	*01/12/24 11:13*	*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			01/12/24 11:13	1

Method: SW846 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			01/10/24 18:40	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	<49.9	U	49.9	mg/Kg		01/10/24 09:19	01/10/24 18:40	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/10/24 09:19	01/10/24 18:40	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/10/24 09:19	01/10/24 18:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*80*		*70 - 130*	*01/10/24 09:19*	*01/10/24 18:40*	*1*
o-Terphenyl	*79*		*70 - 130*	*01/10/24 09:19*	*01/10/24 18:40*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**296**		5.00	mg/Kg			01/10/24 21:41	1

Client Sample ID: FS 03

Date Collected: 01/04/24 09:20
Date Received: 01/05/24 16:13
Sample Depth: 0.5'

Lab Sample ID: 890-5903-3
Matrix: Solid

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		01/09/24 16:57	01/12/24 11:40	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/09/24 16:57	01/12/24 11:40	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/09/24 16:57	01/12/24 11:40	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/09/24 16:57	01/12/24 11:40	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/09/24 16:57	01/12/24 11:40	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/09/24 16:57	01/12/24 11:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*01/09/24 16:57*	*01/12/24 11:40*	*1*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*	*01/09/24 16:57*	*01/12/24 11:40*	*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			01/12/24 11:40	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.4	U	50.4	mg/Kg			01/10/24 19:02	1

Client Sample Results

Client: Ensolum
Project/Site: REMUDA 500 CTB

Job ID: 890-5903-1
SDG: 03C1558151

Client Sample ID: FS 03

Date Collected: 01/04/24 09:20
Date Received: 01/05/24 16:13
Sample Depth: 0.5'

Lab Sample ID: 890-5903-3

Matrix: Solid

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	<50.4	U	50.4		mg/Kg		01/10/24 09:19	01/10/24 19:02	1
Diesel Range Organics (Over C10-C28)	<50.4	U	50.4		mg/Kg		01/10/24 09:19	01/10/24 19:02	1
Oil Range Organics (Over C28-C36)	<50.4	U	50.4		mg/Kg		01/10/24 09:19	01/10/24 19:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*79*		*70 - 130*	*01/10/24 09:19*	*01/10/24 19:02*	*1*
o-Terphenyl	*79*		*70 - 130*	*01/10/24 09:19*	*01/10/24 19:02*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**90.2**		4.99		mg/Kg			01/10/24 21:46	1

Surrogate Summary

Client: Ensolum
Project/Site: REMUDA 500 CTB

Job ID: 890-5903-1
SDG: 03C1558151

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-37864-A-1-H MS	Matrix Spike	103	103
880-37864-A-1-I MSD	Matrix Spike Duplicate	116	106
890-5903-1	FS 01	362 S1+	155 S1+
890-5903-2	FS 02	106	101
890-5903-3	FS 03	102	114
890-5904-A-1-B MS	Matrix Spike	110	104
890-5904-A-1-C MSD	Matrix Spike Duplicate	125	104
LCS 880-70505/1-A	Lab Control Sample	101	112
LCS 880-70722/1-A	Lab Control Sample	102	102
LCSD 880-70505/2-A	Lab Control Sample Dup	136 S1+	111
LCSD 880-70722/2-A	Lab Control Sample Dup	106	103
MB 880-70505/5-A	Method Blank	66 S1-	119
MB 880-70509/5-A	Method Blank	69 S1-	120
MB 880-70722/5-A	Method Blank	110	134 S1+

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)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-5903-1	FS 01	81	78
890-5903-2	FS 02	80	79
890-5903-3	FS 03	79	79
890-5904-A-1-F MS	Matrix Spike	73	65 S1-
890-5904-A-1-G MSD	Matrix Spike Duplicate	73	64 S1-
LCS 880-70539/2-A	Lab Control Sample	93	103
LCSD 880-70539/3-A	Lab Control Sample Dup	95	108
MB 880-70539/1-A - RA2	Method Blank	94	98

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: REMUDA 500 CTB

Job ID: 890-5903-1
SDG: 03C1558151

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-70505/5-A
Matrix: Solid
Analysis Batch: 70625

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 70505

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/09/24 16:57	01/12/24 01:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/09/24 16:57	01/12/24 01:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/09/24 16:57	01/12/24 01:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/09/24 16:57	01/12/24 01:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/09/24 16:57	01/12/24 01:26	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/09/24 16:57	01/12/24 01:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*66*	*S1-*	*70 - 130*	*01/09/24 16:57*	*01/12/24 01:26*	*1*
1,4-Difluorobenzene (Surr)	*119*		*70 - 130*	*01/09/24 16:57*	*01/12/24 01:26*	*1*

Lab Sample ID: LCS 880-70505/1-A
Matrix: Solid
Analysis Batch: 70625

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 70505

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08641		mg/Kg		86	70 - 130		
Toluene			0.100	0.08540		mg/Kg		85	70 - 130		
Ethylbenzene			0.100	0.08639		mg/Kg		86	70 - 130		
m-Xylene & p-Xylene			0.200	0.1887		mg/Kg		94	70 - 130		
o-Xylene			0.100	0.09229		mg/Kg		92	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*

Lab Sample ID: LCSD 880-70505/2-A
Matrix: Solid
Analysis Batch: 70625

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 70505

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1143		mg/Kg		114	70 - 130	28	35
Toluene			0.100	0.1064		mg/Kg		106	70 - 130	22	35
Ethylbenzene			0.100	0.1040		mg/Kg		104	70 - 130	18	35
m-Xylene & p-Xylene			0.200	0.2335		mg/Kg		117	70 - 130	21	35
o-Xylene			0.100	0.1093		mg/Kg		109	70 - 130	17	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*136*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*111*		*70 - 130*

Lab Sample ID: 890-5904-A-1-B MS
Matrix: Solid
Analysis Batch: 70625

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 70505

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.0996	0.07529		mg/Kg		76	70 - 130		
Toluene	<0.00200	U	0.0996	0.07751		mg/Kg		78	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: REMUDA 500 CTB

Job ID: 890-5903-1
SDG: 03C1558151

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

Lab Sample ID: 890-5904-A-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 70625 — **Prep Batch: 70505**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.0996	0.07904		mg/Kg		79	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.199	0.1713		mg/Kg		86	70 - 130
o-Xylene	<0.00200	U	0.0996	0.08624		mg/Kg		87	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 890-5904-A-1-C MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 70625 — **Prep Batch: 70505**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0990	0.08237		mg/Kg		83	70 - 130	9	35
Toluene	<0.00200	U	0.0990	0.08313		mg/Kg		84	70 - 130	7	35
Ethylbenzene	<0.00200	U	0.0990	0.09696		mg/Kg		98	70 - 130	20	35
m-Xylene & p-Xylene	<0.00399	U	0.198	0.2093		mg/Kg		106	70 - 130	20	35
o-Xylene	<0.00200	U	0.0990	0.09597		mg/Kg		97	70 - 130	11	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*125*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: MB 880-70509/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 70625 — **Prep Batch: 70509**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/09/24 16:59	01/11/24 11:47	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/09/24 16:59	01/11/24 11:47	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/09/24 16:59	01/11/24 11:47	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/09/24 16:59	01/11/24 11:47	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/09/24 16:59	01/11/24 11:47	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		01/09/24 16:59	01/11/24 11:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*69*	*S1-*	*70 - 130*	*01/09/24 16:59*	*01/11/24 11:47*	*1*
1,4-Difluorobenzene (Surr)	*120*		*70 - 130*	*01/09/24 16:59*	*01/11/24 11:47*	*1*

Lab Sample ID: MB 880-70722/5-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 70720 — **Prep Batch: 70722**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/12/24 08:25	01/12/24 13:14	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/12/24 08:25	01/12/24 13:14	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/12/24 08:25	01/12/24 13:14	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		01/12/24 08:25	01/12/24 13:14	1

QC Sample Results

Client: Ensolum
Project/Site: REMUDA 500 CTB

Job ID: 890-5903-1
SDG: 03C1558151

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

Lab Sample ID: MB 880-70722/5-A
Matrix: Solid
Analysis Batch: 70720

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 70722

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/12/24 08:25	01/12/24 13:14	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/12/24 08:25	01/12/24 13:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*	*01/12/24 08:25*	*01/12/24 13:14*	*1*
1,4-Difluorobenzene (Surr)	*134*	*S1+*	*70 - 130*	*01/12/24 08:25*	*01/12/24 13:14*	*1*

Lab Sample ID: LCS 880-70722/1-A
Matrix: Solid
Analysis Batch: 70720

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 70722

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1288		mg/Kg		129	70 - 130		
Toluene			0.100	0.1089		mg/Kg		109	70 - 130		
Ethylbenzene			0.100	0.1065		mg/Kg		107	70 - 130		
m-Xylene & p-Xylene			0.200	0.2330		mg/Kg		116	70 - 130		
o-Xylene			0.100	0.1182		mg/Kg		118	70 - 130		

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

Lab Sample ID: LCSD 880-70722/2-A
Matrix: Solid
Analysis Batch: 70720

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 70722

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1207		mg/Kg		121	70 - 130	7	35
Toluene			0.100	0.1109		mg/Kg		111	70 - 130	2	35
Ethylbenzene			0.100	0.1125		mg/Kg		113	70 - 130	5	35
m-Xylene & p-Xylene			0.200	0.2517		mg/Kg		126	70 - 130	8	35
o-Xylene			0.100	0.1244		mg/Kg		124	70 - 130	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 880-37864-A-1-H MS
Matrix: Solid
Analysis Batch: 70720

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 70722

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.101	0.1122		mg/Kg		111	70 - 130		
Toluene	<0.00199	U	0.101	0.09574		mg/Kg		94	70 - 130		
Ethylbenzene	<0.00199	U	0.101	0.09587		mg/Kg		94	70 - 130		
m-Xylene & p-Xylene	<0.00398	U	0.202	0.2213		mg/Kg		110	70 - 130		
o-Xylene	<0.00199	U	0.101	0.1128		mg/Kg		112	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: REMUDA 500 CTB

Job ID: 890-5903-1
SDG: 03C1558151

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

Lab Sample ID: 880-37864-A-1-H MS
Matrix: Solid
Analysis Batch: 70720

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 70722

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

Lab Sample ID: 880-37864-A-1-I MSD
Matrix: Solid
Analysis Batch: 70720

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 70722

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0998	0.1174		mg/Kg		118	70 - 130	4	35
Toluene	<0.00199	U	0.0998	0.09047		mg/Kg		90	70 - 130	6	35
Ethylbenzene	<0.00199	U	0.0998	0.09145		mg/Kg		91	70 - 130	5	35
m-Xylene & p-Xylene	<0.00398	U	0.200	0.2057		mg/Kg		103	70 - 130	7	35
o-Xylene	<0.00199	U	0.0998	0.1001		mg/Kg		100	70 - 130	12	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*116*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

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

Lab Sample ID: LCS 880-70539/2-A
Matrix: Solid
Analysis Batch: 70525

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 70539

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	890.4		mg/Kg		89	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	882.1		mg/Kg		88	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	*93*		*70 - 130*
o-Terphenyl	*103*		*70 - 130*

Lab Sample ID: LCSD 880-70539/3-A
Matrix: Solid
Analysis Batch: 70525

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 70539

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	872.3		mg/Kg		87	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	926.8		mg/Kg		93	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	*95*		*70 - 130*
o-Terphenyl	*108*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: REMUDA 500 CTB

Job ID: 890-5903-1
SDG: 03C1558151

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

Lab Sample ID: 890-5904-A-1-F MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 70525 — **Prep Batch: 70539**

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 F1	1000	656.1	F1	mg/Kg		65	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	1000	658.4	F1	mg/Kg		63	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*73*		*70 - 130*
o-Terphenyl	*65*	*S1-*	*70 - 130*

Lab Sample ID: 890-5904-A-1-G MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 70525 — **Prep Batch: 70539**

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 F1	1000	655.1	F1	mg/Kg		65	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	1000	677.0	F1	mg/Kg		65	70 - 130	3	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*73*		*70 - 130*
o-Terphenyl	*64*	*S1-*	*70 - 130*

Method: 8015B NM - Diesel Range Organics (DRO) (GC) - RA2

Lab Sample ID: MB 880-70539/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 70525 — **Prep Batch: 70539**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10 - RA2	<50.0	U	50.0	mg/Kg		01/10/24 08:00	01/10/24 08:03	1
Diesel Range Organics (Over C10-C28) - RA2	<50.0	U	50.0	mg/Kg		01/10/24 08:00	01/10/24 08:03	1
OII Range Organics (Over C28-C36) - RA2	<50.0	U	50.0	mg/Kg		01/10/24 08:00	01/10/24 08:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane - RA2	*94*		*70 - 130*	*01/10/24 08:00*	*01/10/24 08:03*	*1*
o-Terphenyl - RA2	*98*		*70 - 130*	*01/10/24 08:00*	*01/10/24 08:03*	*1*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-70455/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 70532

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			01/10/24 19:22	1

QC Sample Results

Client: Ensolum
Project/Site: REMUDA 500 CTB

Job ID: 890-5903-1
SDG: 03C1558151

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-70455/2-A
Matrix: Solid
Analysis Batch: 70532

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	248.8		mg/Kg		100	90 - 110		

Lab Sample ID: LCSD 880-70455/3-A
Matrix: Solid
Analysis Batch: 70532

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	249.1		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 890-5902-A-16-B MS
Matrix: Solid
Analysis Batch: 70532

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	90.9		251	340.8		mg/Kg		100	90 - 110		

Lab Sample ID: 890-5902-A-16-C MSD
Matrix: Solid
Analysis Batch: 70532

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	90.9		251	340.7		mg/Kg		100	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: REMUDA 500 CTB

Job ID: 890-5903-1
SDG: 03C1558151

GC VOA

Prep Batch: 70505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5903-2	FS 02	Total/NA	Solid	5035	
890-5903-3	FS 03	Total/NA	Solid	5035	
MB 880-70505/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-70505/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-70505/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-5904-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-5904-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 70509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-70509/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 70625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5903-2	FS 02	Total/NA	Solid	8021B	70505
890-5903-3	FS 03	Total/NA	Solid	8021B	70505
MB 880-70505/5-A	Method Blank	Total/NA	Solid	8021B	70505
MB 880-70509/5-A	Method Blank	Total/NA	Solid	8021B	70509
LCS 880-70505/1-A	Lab Control Sample	Total/NA	Solid	8021B	70505
LCSD 880-70505/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	70505
890-5904-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	70505
890-5904-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	70505

Analysis Batch: 70720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5903-1	FS 01	Total/NA	Solid	8021B	70722
MB 880-70722/5-A	Method Blank	Total/NA	Solid	8021B	70722
LCS 880-70722/1-A	Lab Control Sample	Total/NA	Solid	8021B	70722
LCSD 880-70722/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	70722
880-37864-A-1-H MS	Matrix Spike	Total/NA	Solid	8021B	70722
880-37864-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	70722

Prep Batch: 70722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5903-1	FS 01	Total/NA	Solid	5035	
MB 880-70722/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-70722/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-70722/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-37864-A-1-H MS	Matrix Spike	Total/NA	Solid	5035	
880-37864-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 70777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5903-1	FS 01	Total/NA	Solid	Total BTEX	
890-5903-2	FS 02	Total/NA	Solid	Total BTEX	
890-5903-3	FS 03	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Ensolum
Project/Site: REMUDA 500 CTB

Job ID: 890-5903-1
SDG: 03C1558151

GC Semi VOA

Analysis Batch: 70525

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5903-1	FS 01	Total/NA	Solid	8015B NM	70539
890-5903-2	FS 02	Total/NA	Solid	8015B NM	70539
890-5903-3	FS 03	Total/NA	Solid	8015B NM	70539
MB 880-70539/1-A - RA2	Method Blank	Total/NA	Solid	8015B NM	70539
LCS 880-70539/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	70539
LCSD 880-70539/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	70539
890-5904-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	70539
890-5904-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	70539

Prep Batch: 70539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5903-1	FS 01	Total/NA	Solid	8015NM Prep	
890-5903-2	FS 02	Total/NA	Solid	8015NM Prep	
890-5903-3	FS 03	Total/NA	Solid	8015NM Prep	
MB 880-70539/1-A - RA2	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-70539/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-70539/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-5904-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-5904-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 70645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5903-1	FS 01	Total/NA	Solid	8015 NM	
890-5903-2	FS 02	Total/NA	Solid	8015 NM	
890-5903-3	FS 03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 70455

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5903-1	FS 01	Soluble	Solid	DI Leach	
890-5903-2	FS 02	Soluble	Solid	DI Leach	
890-5903-3	FS 03	Soluble	Solid	DI Leach	
MB 880-70455/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-70455/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-70455/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-5902-A-16-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-5902-A-16-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 70532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-5903-1	FS 01	Soluble	Solid	300.0	70455
890-5903-2	FS 02	Soluble	Solid	300.0	70455
890-5903-3	FS 03	Soluble	Solid	300.0	70455
MB 880-70455/1-A	Method Blank	Soluble	Solid	300.0	70455
LCS 880-70455/2-A	Lab Control Sample	Soluble	Solid	300.0	70455
LCSD 880-70455/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	70455
890-5902-A-16-B MS	Matrix Spike	Soluble	Solid	300.0	70455
890-5902-A-16-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	70455

Lab Chronicle

Client: Ensolum
Project/Site: REMUDA 500 CTB

Job ID: 890-5903-1
SDG: 03C1558151

Client Sample ID: FS 01

Date Collected: 01/04/24 09:10
Date Received: 01/05/24 16:13

Lab Sample ID: 890-5903-1
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			4.98 g	5 mL	70722	01/12/24 08:25	EL	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	70720	01/12/24 21:43	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			70777	01/12/24 21:43	SM	EET MID
Total/NA	Analysis	8015 NM		1			70645	01/10/24 18:18	SM	EET MID
Total/NA	Prep	8015NM Prep			10.10 g	10 mL	70539	01/10/24 09:19	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	70525	01/10/24 18:18	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	70455	01/09/24 11:00	SA	EET MID
Soluble	Analysis	300.0		1			70532	01/10/24 21:36	CH	EET MID

Client Sample ID: FS 02

Date Collected: 01/04/24 09:15
Date Received: 01/05/24 16:13

Lab Sample ID: 890-5903-2
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			5.02 g	5 mL	70505	01/09/24 16:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	70625	01/12/24 11:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			70777	01/12/24 11:13	SM	EET MID
Total/NA	Analysis	8015 NM		1			70645	01/10/24 18:40	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	70539	01/10/24 09:19	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	70525	01/10/24 18:40	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	70455	01/09/24 11:00	SA	EET MID
Soluble	Analysis	300.0		1			70532	01/10/24 21:41	CH	EET MID

Client Sample ID: FS 03

Date Collected: 01/04/24 09:20
Date Received: 01/05/24 16:13

Lab Sample ID: 890-5903-3
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			5.03 g	5 mL	70505	01/09/24 16:57	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	70625	01/12/24 11:40	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			70777	01/12/24 11:40	SM	EET MID
Total/NA	Analysis	8015 NM		1			70645	01/10/24 19:02	SM	EET MID
Total/NA	Prep	8015NM Prep			9.93 g	10 mL	70539	01/10/24 09:19	TKC	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	70525	01/10/24 19:02	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	70455	01/09/24 11:00	SA	EET MID
Soluble	Analysis	300.0		1			70532	01/10/24 21:46	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: REMUDA 500 CTB

Job ID: 890-5903-1
SDG: 03C1558151

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	T104704400-23-26	06-30-24

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: REMUDA 500 CTB

Job ID: 890-5903-1
SDG: 03C1558151

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: REMUDA 500 CTB

Job ID: 890-5903-1
SDG: 03C1558151

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-5903-1	FS 01	Solid	01/04/24 09:10	01/05/24 16:13	0.5'
890-5903-2	FS 02	Solid	01/04/24 09:15	01/05/24 16:13	0.5'
890-5903-3	FS 03	Solid	01/04/24 09:20	01/05/24 16:13	0.5'

eurofins | Environment Testing Xenco

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:	Ben Belill	Bill to: (if different)	Garrett Green
Company Name:	Ensolum, LLC	Company Name:	XTO Energy
Address:	3122 Nat'l Parks Hwy	Address:	3104 E ~~3122 Nat'l Parks~~ Greene St
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	989-854-0852 Email:		bbelill@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:	Remuda 500 CTB	Turn Around	Pres. Code
Project Number:	03C1558151	☑ Routine ☐ Rush	
Project Location:	32.27051, -103.93733	Due Date:	
Sampler's Name:	Meredith Roberts	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#2
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	0.6
Total Containers:		Corrected Temperature:	0.4

ANALYSIS REQUEST

890-5903 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	BTEX	Chlorides	TPH
FS01	S	1/4/24	0910	0.5'	C	1	X	X	X
FS02	↓	↓	0915	↓	↓	↓	↓	↓	↓
FS03	↓	↓	0920	↓	↓	↓	↓	↓	↓

NM →

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

SAMPLES LABELED w/ "(flare fire)"

Incident #s:
NAPP2300441385
NAPP2300448092
NAPP2300641362

Cost Center:
1067601001

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 Meares		16:13 1/5	2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-5903-1
SDG Number: 03C1558151

Login Number: 5903
List Number: 1
Creator: Bruns, Shannon

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.	N/A	Refer to Job Narrative for details.
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: 890-5903-1
SDG Number: 03C1558151

Login Number: 5903
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 01/09/24 01:43 PM

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	

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
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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

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 420488
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2300641362**
Incident Name	**NAPP2300641362 REMUDA 500 TB @ 0**
Incident Type	**Fire**
Incident Status	**Remediation Closure Report Received**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	REMUDA 500 TB
Date Release Discovered	12/27/2022
Surface Owner	State

Incident Details	
Please answer all the questions in this group.	
Incident Type	Fire
Did this release result in a fire or is the result of a fire	Yes
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: 0 BBL | Recovered: 0 BBL | Lost: 0 BBL.
Produced Water Released (bbls) Details	*Not answered.*
Is the concentration of chloride in the produced water >10,000 mg/l	*Not answered.*
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)	Guppy system malfunctioned, resulting in fluid exiting the low pressure flare and igniting on the pad surface. Fire self-extinguished. No equipment was damaged and no injuries reported. A third-party contractor has been retained for remediation purposes.

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QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 420488
	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)	**More info needed to determine if this will be treated as 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:** **(2) an unauthorized release of a volume that:** **(a) results in a fire or is the result of a fire.**
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: Kailee Smith Title: Regulatory Analyst Email: kailee.smith@exxonmobil.com Date: 01/14/2025

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QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 420488
	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	Attached Document
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 300 and 500 (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	Greater than 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between 1000 (ft.) and ½ (mi.)
A subsurface mine	Between 1000 (ft.) and ½ (mi.)
An (non-karst) unstable area	Greater than 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Medium
A 100-year floodplain	Between 1 and 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		No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)		
Chloride	(EPA 300.0 or SM4500 Cl B)	296
TPH (GRO+DRO+MRO)	(EPA SW-846 Method 8015M)	0
GRO+DRO	(EPA SW-846 Method 8015M)	0
BTEX	(EPA SW-846 Method 8021B or 8260B)	0
Benzene	(EPA SW-846 Method 8021B or 8260B)	0
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		02/10/2023
On what date will (or did) the final sampling or liner inspection occur		01/04/2024
On what date will (or was) the remediation complete(d)		02/10/2023
What is the estimated surface area (in square feet) that will be reclaimed		430
What is the estimated volume (in cubic yards) that will be reclaimed		8
What is the estimated surface area (in square feet) that will be remediated		430
What is the estimated volume (in cubic yards) that will be remediated		8
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: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 420488
	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.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	HALFWAY DISPOSAL AND LANDFILL [fEEM0112334510]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	No
OR is the **off-site** disposal site, to be used, an NMED facility	No
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
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: Kailee Smith Title: Regulatory Analyst Email: kailee.smith@exxonmobil.com Date: 01/14/2025
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.	

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

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

QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 420488
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Deferral Requests Only *Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.*	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 420488
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**298242**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**01/05/2024**
What was the (estimated) number of samples that were to be gathered	**10**
What was the sampling surface area in square feet	**500**

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	**No**
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	430
What was the total volume (cubic yards) remediated	8
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	430
What was the total volume (in cubic yards) reclaimed	8
Summarize any additional remediation activities not included by answers (above)	On December 27, 2022, the low-pressure flare guppy system malfunctioned, causing approximately 0.05 bbls of crude oil to exit the flare and ignite. The fire extinguished by itself, and no recoverable fluids remained. The release was assigned Incident Number NAPP2300641362.

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: Kailee Smith Title: Regulatory Analyst Email: kailee.smith@exxonmobil.com Date: 01/14/2025

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QUESTIONS (continued)

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 420488
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 420488
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your Remediation Closure Report for Incident #NAPP2300641362 REMUDA 500 TB, thank you. This Remediation Closure Report is approved.	1/21/2025