

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

State of New Mexico **NM OIL CONSERVATION**
Energy Minerals and Natural Resources **ARTESIA DISTRICT**
Oil Conservation Division **FEB 6 2017**
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit Copy to appropriate District Office in accordance with 19.15.29 NMAC.

RECEIVED

Release Notification and Corrective Action

NAB1704456898 **OPERATOR** Initial Report Final Report

Name of Company: <i>BOPCO, L.P.</i> <i>210737</i>	Contact: Amy Ruth
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: Los Medanos 36-23-30 State Battery	Facility Type: Exploration and Production
Surface Owner: State	Mineral Owner: State
API No. 30-015-40371	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	36	23S	30E	45	South	700	West	Eddy

Latitude 32.254250° Longitude -103.840625°

NATURE OF RELEASE

Type of Release	Produced Water	Volume of Release	12 bbls	Volume Recovered	2 bbls
Source of Release	SWD pipe	Date and Hour of Occurrence	1/22/2017 time unknown	Date and Hour of Discovery	1/22/2017 11:30 am
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	N/A		
By Whom?	N/A	Date and Hour	N/A		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	N/A		
If a Watercourse was Impacted, Describe Fully.* N/A					
Describe Cause of Problem and Remedial Action Taken.* A pinhole leak formed in the buried section of the 45 in the SWD line. The line was excavated, drained and clamped until repairs were made.					
Describe Area Affected and Cleanup Action Taken.* The leak affected 408 square feet of pasture south of the containment. Vacuum trucks recovered standing fluids. The impacted area at the source was excavated 9 feet deep for repairs. All saturated soils removed in the repair process were sent to a NMOCD approved disposal facility.					
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.					

Signature:		OIL CONSERVATION DIVISION	
Printed Name: Amy C. Ruth		Approved by Environmental Specialist: <i>Crystal King</i>	
Title: EHS Environmental Supervisor		Approval Date: <i>2/8/17</i>	Expiration Date:
E-mail Address: ACRuth@basspet.com		Conditions of Approval: <i>COA's attached</i>	
Date: 2/6/2017 Phone: 432-661-0571		Attached <input checked="" type="checkbox"/>	

Attach Additional Sheets If Necessary

2RR-A11A

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State of New Mexico
Energy Minerals and Natural
Resources Department

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

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

Incident ID	NAB1704456898
District RP	2RP-4114
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: XTO Energy, Inc	OGRID: 5380
Contact Name: Garrett Green	Contact Telephone: (575) 200-0729
Contact email: garrett.green@exxonmobil.com	Incident #: 2RP-4114
Contact mailing address 3104 E. Greene Street, Carlsbad, New Mexico, 88220	

Location of Release Source

Latitude 32.254250 Longitude -103.840625
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Los Medanos 36-23-30 State Battery	Site Type: Exploration and Production
Date Release Discovered: January 22, 2017	API# (if applicable) 30-015-40371

Unit Letter	Section	Township	Range	County
M	36	23S	30E	Eddy

Surface Owner: State Federal Tribal Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 12	Volume Recovered (bbls) 2
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

A pinhole leak formed in the buried section of the 45 in the SWD line. The line was excavated, drained and clamped until repairs were made. The leak affected 408 square feet of pasture south of the containment. Vacuum trucks recovered standing fluids. The impacted area at the source was excavated 9 feet deep for repairs. All saturated soils removed in the repair process were sent to a NMOCD approved disposal facility.

Incident ID	NAB1704456898
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Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? Release volume was less than 25 bbls.
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why: NA
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.
Printed Name: <u>Garrett Green</u> Title: <u>SSHE Coordinator</u> Signature: <u></u> Date: <u>6/15/2023</u> email: <u>garrett.green@exxonmobil.com</u> Telephone: <u>575-200-0729</u>
<u>OCD Only</u> Received by: _____ Date: _____

Incident ID	NAB1704456898
District RP	2RP-4114
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: Each of the following items must be included in the report.

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- Depth to water determination
- Determination of water sources and significant watercourses within 1/2-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Incident ID	NAB1704456898
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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Garrett Green Title: SSHE Coordinator

Signature:  Date: 06/15/2023

email: garrett.green@exxonmobil.com Telephone: 575-200-0729

OCD Only

Received by: _____ Date: _____

Incident ID	NAB1704456898
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Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Garrett Green Title: SSHE Coordinator

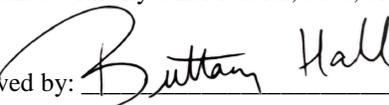
Signature:  Date: 06/15/2023

email: Garrett.green@exxonmobil.com Telephone: 575-200-0729

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by:  Date: 7/12/2023

Printed Name: Brittany Hall Title: Environmental Specialist



June 15, 2023

New Mexico Oil Conservation Division

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

**Re: Closure Request Addendum
Los Medanos 36-23-30 State Battery
Incident Number NAB1704456898
Eddy County, New Mexico**

To Whom It May Concern:

Ensolium, LLC (Ensolium), on behalf of XTO Energy, Inc. (XTO), has prepared the following addendum to the original *Closure Request* dated February 5, 2019. This addendum provides an update to the soil sampling activities completed at the Los Medanos 36-23-30 State Battery (Site) in response to the denial of the original *Closure Request* by the New Mexico Oil Conservation Division (NMOCD). In the denial, NMOCD indicated that it was unclear if two excavation sidewall samples met the reclamation requirement in the top four feet. Based on the additional soil sampling activities described below, XTO is submitting this *Closure Request Addendum* and requesting closure for Incident Number NAB1704456898.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit M, Section 36, Township 23 South, Range 30 East, in Eddy County, New Mexico (32.2547112°, -103.8408203°) and is associated with oil and gas exploration and production operations on land managed by the New Mexico State Land Office (SLO).

On January 22, 2017, a pinhole leak was discovered in a buried section of the saltwater disposal (SWD) line. Approximately 12 barrels (bbls) of produced water were released into the pasture area south of the tank battery containment. A vacuum truck was used to recover approximately 2 bbls of standing fluid. The release area was excavated to a depth of 9 feet below ground surface (bgs) in order to repair the SWD line. Saturated soil removed during the repair process was hauled to a disposal facility. The former operator reported the release to the NMOCD on a Release Notification and Corrective Action Form C-141 (Form C-141) on February 6, 2017. The release was assigned Remediation Permit (RP) Number 2RP- 4114 and Incident Number NAB1704456898.

The release was included in the Compliance Agreement for Remediation for Historical Releases (Compliance Agreement) between XTO and the NMOCD effective November 13, 2018. The purpose of the Compliance Agreement was to ensure that reportable releases that occurred prior to August 14, 2018, where XTO is responsible for the corrective action, comply with Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC) as amended on August 14, 2018.

XTO Energy, Inc.
Closure Request Addendum
Los Medanos 36-23-30 State Battery

BACKGROUND

The original *Closure Request* detailed site characterization according to Table I, Closure Criteria for Soils Impacted by a Release of 19.15.29 NMAC. Results from the site characterization 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 the nearest groundwater well data. The closest permitted groundwater well is New Mexico Office of the State Engineer (NMOSE) well C-04646, located approximately 0.44 miles east of the Site. The well was drilled to a depth of 103 feet during August 2022, and no groundwater was encountered. The well record is provided in Appendix A. Potential site receptors are identified on Figure 1. Based on the results of the Site Characterization, the following NMOCD Table I Closure Criteria (Closure Criteria) were 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

A reclamation requirement of 600 mg/kg chloride was applied to the top 4 feet of the pasture area that was impacted by the release, per 19.15.29.13.D (1) NMAC for the top 4 feet of areas that will be reclaimed following remediation.

During July 2018, excavation activities were conducted at the Site to address the impacted soil resulting from the January 22, 2017, produced water release. Approximately 800 cubic yards of impacted soil were removed from the excavation and confirmation soil samples were collected from the floor and sidewalls of the final excavation extent. The excavation soil sample locations are depicted on Figure 2 and the laboratory analytical results are summarized in Table 1. Based on the excavation soil sample laboratory analytical results, a *Closure Request* was submitted to NMOCD on February 5, 2019. Additional details regarding the excavation and soil sampling activities can be referenced in the original February 5, 2019, *Closure Request*.

On March 16, 2023, NMOCD denied the *Closure Request* for Incident Number NAB1704456898 for the following reason:

- *It is unclear if the upper 4 feet of SW2 and SW3 meet the reclamation standard of 600 mg/kg for chloride as the depth is labeled in the report, table, and map as @7'. A deferral of this area may be granted so long as the contamination is fully delineated and does not cause an imminent risk to human health, the environment, or ground water.*

ADDITIONAL SOIL SAMPLING ACTIVITIES

On April 7, 2023, Ensolum personnel were at the Site to complete soil sampling activities to confirm the absence of chloride impacted soil in the top four feet of the historical excavation in the areas around original sidewall samples SW2 and SW3. Composite sidewall samples SW09 and SW10 were collected via hand auger from depths ranging from the ground surface to 4 feet bgs at the original SW2 and SW3 excavation sidewall sample locations. The excavation soil sample locations are depicted on Figure 2. Photographic documentation was completed during the Site visit and a photographic log is included in Appendix B.

XTO Energy, Inc.
Closure Request Addendum
Los Medanos 36-23-30 State Battery

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.

Laboratory analytical results for excavation sidewall samples SW09 and SW10 indicated that all COC concentrations were compliant with the Site Closure Criteria and the reclamation requirement for the top four feet. The soil sample analytical results are summarized on Table 1 and the laboratory analytical report is included as Appendix C.

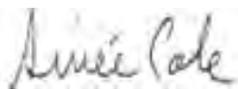
CLOSURE REQUEST

Excavation and soil sampling activities were conducted at the Site to address the impacted soil resulting from the January 22, 2017, produced water release. Based on excavation soil sample analytical results compliant with the Site Closure Criteria and the reclamation requirement in samples collected from the top four feet, no further remediation is required.

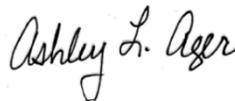
Initial response efforts and excavation of impacted soil have mitigated impacts at this Site. The excavation was backfilled, contoured, and re-seeded and is currently supporting vegetative growth. Depth to groundwater has been determined to be greater than 100 feet bgs within 0.5 miles of the Site and no other sensitive receptors were identified near the release extent. XTO believes the remedial actions completed are protective of human health, the environment, and groundwater and respectfully requests closure for Incident Number NAB1704456898.

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

Sincerely,
Ensolum, LLC



Aimee Cole
Senior Managing Scientist



Ashley Ager, P.G.
Program Director

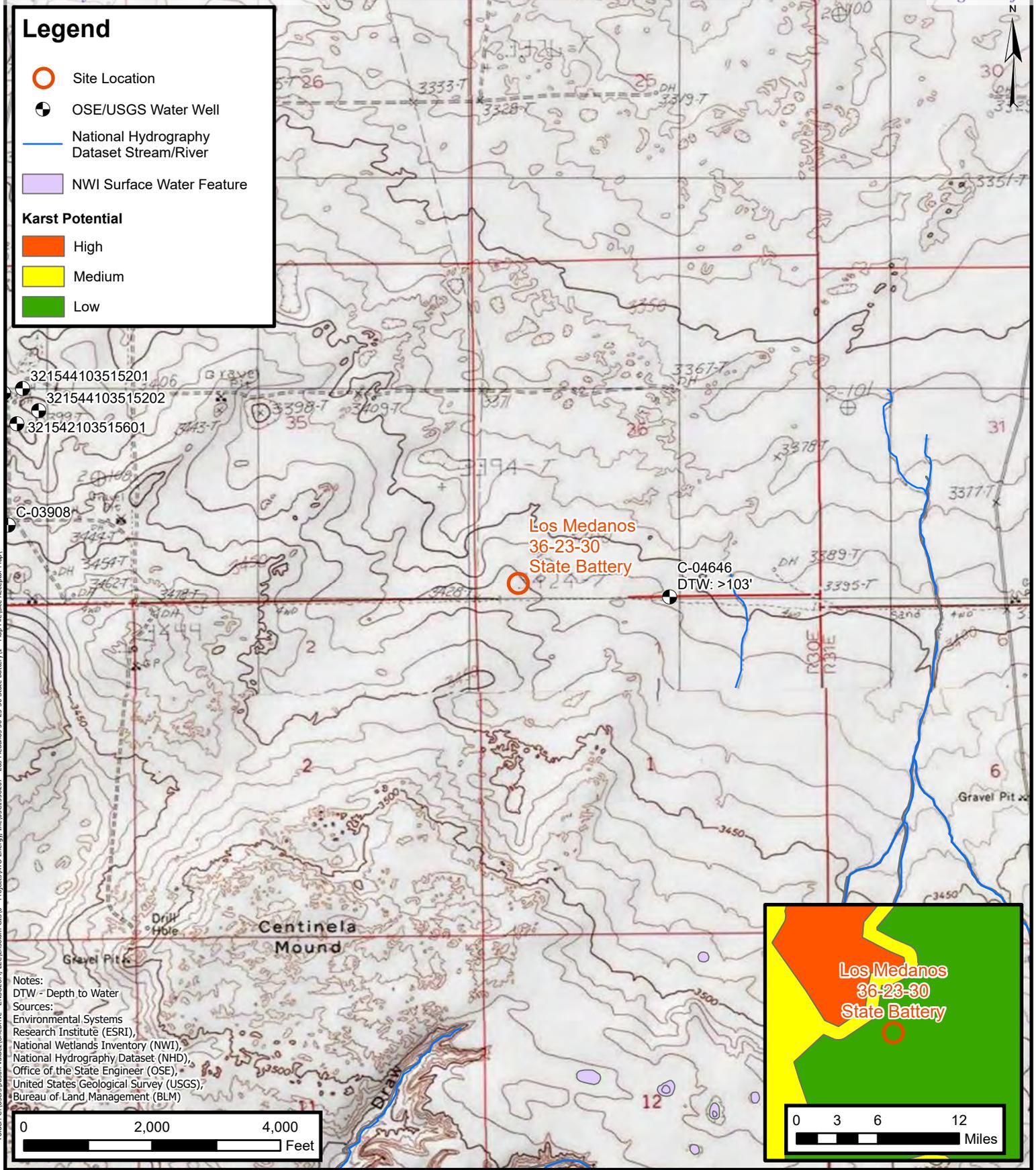
cc: Garrett Green, XTO
Shelby Pennington, XTO
New Mexico State Land Office

Appendices:

- Figure 1 Site Receptor Map
- Figure 2 Excavation Soil Sample Locations (2018/2023)
- Table 1 Soil Sample Analytical Results (2018/2023)
- Appendix A Referenced Well Records
- Appendix B Photographic Log (2023)
- Appendix C Laboratory Analytical Reports & Chain-of-Custody Documentation (2023)
- Appendix D NMOCD Notifications



FIGURES



Site Receptor Map
XTO Energy, Inc.
Los Medanos 36-23-30 State Battery
Incident Number: NAB1704456898
Unit M, Section 36, Township 23 South, Range 30 East
Eddy County, New Mexico

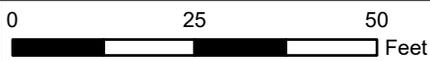
FIGURE
1

Legend

- Excavation Floor Sample in Compliance with Closure Criteria (2018)
- Excavation Sidewall Sample in Compliance with Closure Criteria (2018)
- Excavation Sidewall Sample in Compliance with Closure Criteria (2023)
- Excavation Extent



Notes:
 Sample ID @ Depth Below Ground Surface.



Sources: Environmental Systems Research Institute (ESRI)



Excavation Soil Sample Locations

XTO Energy, Inc.
 Los Medanos 36-23-30 State Battery
 Incident Number: NAB1704456898
 Unit M, Section 36, Township 23 South, Range 30 East
 Eddy County, New Mexico

FIGURE

2



TABLES

**TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Los Medanos 36-23-30 State Battery
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										
FS1	7/10/2018	6	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	77.6
SW1	7/10/2018	7	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	163
SW2	7/10/2018	7	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	7,600
SW3	7/10/2018	7	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	8,060
SW4	7/10/2018	5	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	27.3
FS2	7/12/2018	7	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	29.1
SW5	7/12/2018	5	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	8.78
SW6	7/12/2018	4	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	<5.02
SW7	7/12/2018	4	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	16.4
SW08	7/19/2018	4	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	<4.96
SW09	04/07/2023	0 - 4	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	83.0
SW10	04/07/2023	0 - 4	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	199

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 where applicable.

GRO: Gasoline Range Organics
 DRO: Diesel Range Organics
 ORO: Oil Range Organics
 TPH: Total Petroleum Hydrocarbon
 NMAC: New Mexico Administrative Code
 Grey text indicates soil sample removed during excavation activities



APPENDIX A

Referenced Well Records



New Mexico Office of the State Engineer

Point of Diversion Summary

Well Tag	POD Number	(quarters are 1=NW 2=NE 3=SW 4=SE)				(quarters are smallest to largest)		(NAD83 UTM in meters)	
		Q64	Q16	Q4	Sec	Tws	Rng	X	Y
NA	C 04646 POD1	1	1	2	01	24S	30E	609909	3569179

Driller License: 1184 **Driller Company:** WEST TEXAS WATER WELL SERVICE

Driller Name: RUSSELL SOUTHERLAND

Drill Start Date: 08/09/2022 **Drill Finish Date:** 08/09/2022 **Plug Date:**

Log File Date: 09/15/2022 **PCW Rev Date:** **Source:**

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: **Depth Well:** 110 feet **Depth Water:**

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

5/15/23 10:50 AM

POINT OF DIVERSION SUMMARY

		Sample Name: C-4646-POD1	Date: 08/08/2022					
		Site Name: Los Medanos (007)						
		Incident Number: nAPP2204835360						
		Job Number: 03E1558007						
LITHOLOGIC / SOIL SAMPLING LOG		Logged By: GM	Method: HSA					
Coordinates: 32.253930, -103.833200		Hole Diameter: 6"	Total Depth: 103'					
Comments:								
Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
Δ	1	1	Z			0	SW	0-10, SAND, dry, well-graded, reddish-brown, very fine-fine grain, trace organics, no staining, no odor.
Δ	1	1	Z			10		10-20, CALICHE, dry, white-tan, poorly-graded, very fine-fine grain, some reddish brown sand, no staining, no odor.
Δ	1	1	Z			20		20-100, SANDSTONE, poorly graded, red, poorly consolidated, few grey reduction spots (<2mm), abundant laminations (<1mm), no staining, no odor.
Δ	1	1	Z			30		
Δ	1	1	Z			40		@30', reddish spots reduced in size (<1mm).
Δ	1	1	Z			50		@50', reduction spots reduced to trace amount, color change to darker red, trace crystalline laminations (<1mm) and grains
Δ	1	1	Z			60		@60', laminations reduced to trace amount, reduction spots no longer present.
Δ	1	1	Z			70		
Δ	1	1	Z			80		@70', trace amount of grey reduction spots (1-2 mm).
Δ	1	1	Z			90		@90', few laminations (<1mm), reduction spots increase to little in abundance.
Δ	1	1	Z			100		
							TD	Total depth @ 103'



APPENDIX B

Photographic Log



Photographic Log
XTO Energy, Inc.
Los Medanos 36-23-30 State Battery
Incident Number NAB1704456898



Photograph: 1 Date: 4/7/2023
Description: View of historical release area.



Photograph: 2 Date: 4/7/2023
Description: View of historical release area.



Photograph: 3 Date: 4/7/2023
Description: View of historical release area.



Photograph: 4 Date: 4/7/2023
Description: View of historical release area.



APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation



Environment Testing

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ANALYTICAL REPORT

PREPARED FOR

Attn: Tacoma Morrissey
 Ensolum
 601 N. Marienfeld St.
 Suite 400
 Midland, Texas 79701

Generated 4/14/2023 3:13:30 PM

JOB DESCRIPTION

Los Medanos 36-23-30 State Battery
 SDG NUMBER 03C1558207

JOB NUMBER

890-4479-1

Eurofins Carlsbad
 1089 N Canal St.
 Carlsbad NM 88220



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
4/14/2023 3:13:30 PM

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

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Client: Ensolum
Project/Site: Los Medanos 36-23-30 State Battery

Laboratory Job ID: 890-4479-1
SDG: 03C1558207

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Definitions/Glossary

Client: Ensolum
Project/Site: Los Medanos 36-23-30 State Battery

Job ID: 890-4479-1
SDG: 03C1558207

Qualifiers

GC 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.

GC Semi VOA

Qualifier	Qualifier Description
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.
α	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: Los Medanos 36-23-30 State Battery

Job ID: 890-4479-1
SDG: 03C1558207

Job ID: 890-4479-1

Laboratory: Eurofins Carlsbad**Narrative****Job Narrative
890-4479-1****Receipt**

The samples were received on 4/7/2023 12:52 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

GC VOA

Method 8021B: Surrogate recovery for the following samples were outside control limits: (880-26842-A-1-G MS) and (880-26842-A-1-H MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with preparation batch 880-50884 and analytical batch 880-51006 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Toluene in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

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: (LCS 880-50825/2-A) and (LCSD 880-50825/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-4476-A-1-E MS) and (890-4476-A-1-F MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: SW09 (890-4479-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-50902/2-A) and (LCSD 880-50902/3-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-26982-A-1-D MS) and (880-26982-A-1-E MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: SW10 (890-4479-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The method blank for preparation batch 880-50902 and analytical batch 880-50866 contained Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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: Los Medanos 36-23-30 State Battery

Job ID: 890-4479-1
 SDG: 03C1558207

Client Sample ID: SW09

Lab Sample ID: 890-4479-1

Date Collected: 04/07/23 08:40

Matrix: Solid

Date Received: 04/07/23 12:52

Sample Depth: 0 - 4

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		04/11/23 10:01	04/14/23 06:08	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/11/23 10:01	04/14/23 06:08	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/11/23 10:01	04/14/23 06:08	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		04/11/23 10:01	04/14/23 06:08	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/11/23 10:01	04/14/23 06:08	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		04/11/23 10:01	04/14/23 06:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	04/11/23 10:01	04/14/23 06:08	1
1,4-Difluorobenzene (Surr)	107		70 - 130	04/11/23 10:01	04/14/23 06:08	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			04/14/23 10:17	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			04/11/23 09:53	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		04/10/23 11:42	04/11/23 03:50	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		04/10/23 11:42	04/11/23 03:50	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		04/10/23 11:42	04/11/23 03:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	66	S1-	70 - 130	04/10/23 11:42	04/11/23 03:50	1
o-Terphenyl	69	S1-	70 - 130	04/10/23 11:42	04/11/23 03:50	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	83.0		5.05	mg/Kg			04/13/23 16:39	1

Client Sample ID: SW10

Lab Sample ID: 890-4479-2

Date Collected: 04/07/23 08:50

Matrix: Solid

Date Received: 04/07/23 12:52

Sample Depth: 0 - 4

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		04/11/23 10:01	04/14/23 06:28	1
Toluene	<0.00201	U	0.00201	mg/Kg		04/11/23 10:01	04/14/23 06:28	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		04/11/23 10:01	04/14/23 06:28	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		04/11/23 10:01	04/14/23 06:28	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		04/11/23 10:01	04/14/23 06:28	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		04/11/23 10:01	04/14/23 06:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	04/11/23 10:01	04/14/23 06:28	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
 Project/Site: Los Medanos 36-23-30 State Battery

Job ID: 890-4479-1
 SDG: 03C1558207

Client Sample ID: SW10

Lab Sample ID: 890-4479-2

Date Collected: 04/07/23 08:50

Matrix: Solid

Date Received: 04/07/23 12:52

Sample Depth: 0 - 4

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	106		70 - 130	04/11/23 10:01	04/14/23 06:28	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			04/14/23 10:17	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			04/12/23 09:01	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		04/11/23 11:07	04/11/23 23:46	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		04/11/23 11:07	04/11/23 23:46	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		04/11/23 11:07	04/11/23 23:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	69	S1-	70 - 130	04/11/23 11:07	04/11/23 23:46	1
o-Terphenyl	71		70 - 130	04/11/23 11:07	04/11/23 23:46	1

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	199		5.03	mg/Kg			04/13/23 15:44	1

Surrogate Summary

Client: Ensolum
Project/Site: Los Medanos 36-23-30 State Battery

Job ID: 890-4479-1
SDG: 03C1558207

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB1 (70-130)	DFBZ1 (70-130)
880-26842-A-1-G MS	Matrix Spike	64 S1-	68 S1-
880-26842-A-1-H MSD	Matrix Spike Duplicate	66 S1-	74
890-4479-1	SW09	103	107
890-4479-2	SW10	94	106
LCS 880-50884/1-A	Lab Control Sample	103	111
LCSD 880-50884/2-A	Lab Control Sample Dup	101	109
MB 880-50884/5-A	Method Blank	91	97
MB 880-50904/5-A	Method Blank	94	99

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		1CO1 (70-130)	OTPH1 (70-130)
880-26982-A-1-D MS	Matrix Spike	74	67 S1-
880-26982-A-1-E MSD	Matrix Spike Duplicate	76	69 S1-
890-4476-A-1-E MS	Matrix Spike	70	66 S1-
890-4476-A-1-F MSD	Matrix Spike Duplicate	71	65 S1-
890-4479-1	SW09	66 S1-	69 S1-
890-4479-2	SW10	69 S1-	71
LCS 880-50825/2-A	Lab Control Sample	6 S1-	5 S1-
LCS 880-50902/2-A	Lab Control Sample	9 S1-	7 S1-
LCSD 880-50825/3-A	Lab Control Sample Dup	6 S1-	5 S1-
LCSD 880-50902/3-A	Lab Control Sample Dup	9 S1-	7 S1-
MB 880-50825/1-A	Method Blank	77	84
MB 880-50902/1-A	Method Blank	83	92

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
 Project/Site: Los Medanos 36-23-30 State Battery

Job ID: 890-4479-1
 SDG: 03C1558207

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-50884/5-A
 Matrix: Solid
 Analysis Batch: 51006

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 50884

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		04/11/23 10:01	04/14/23 00:03	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/11/23 10:01	04/14/23 00:03	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/11/23 10:01	04/14/23 00:03	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/11/23 10:01	04/14/23 00:03	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/11/23 10:01	04/14/23 00:03	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/11/23 10:01	04/14/23 00:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		70 - 130	04/11/23 10:01	04/14/23 00:03	1
1,4-Difluorobenzene (Surr)	97		70 - 130	04/11/23 10:01	04/14/23 00:03	1

Lab Sample ID: LCS 880-50884/1-A
 Matrix: Solid
 Analysis Batch: 51006

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 50884

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1075		mg/Kg		107	70 - 130
Toluene	0.100	0.1033		mg/Kg		103	70 - 130
Ethylbenzene	0.100	0.09454		mg/Kg		95	70 - 130
m-Xylene & p-Xylene	0.200	0.1871		mg/Kg		94	70 - 130
o-Xylene	0.100	0.09528		mg/Kg		95	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	111		70 - 130

Lab Sample ID: LCSD 880-50884/2-A
 Matrix: Solid
 Analysis Batch: 51006

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 50884

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1132		mg/Kg		113	70 - 130	5	35
Toluene	0.100	0.1110		mg/Kg		111	70 - 130	7	35
Ethylbenzene	0.100	0.09905		mg/Kg		99	70 - 130	5	35
m-Xylene & p-Xylene	0.200	0.1953		mg/Kg		98	70 - 130	4	35
o-Xylene	0.100	0.1006		mg/Kg		101	70 - 130	5	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	109		70 - 130

Lab Sample ID: 880-26842-A-1-G MS
 Matrix: Solid
 Analysis Batch: 51006

Client Sample ID: Matrix Spike
 Prep Type: Total/NA
 Prep Batch: 50884

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.193	F1	0.101	0.2291	F1	mg/Kg		36	70 - 130
Ethylbenzene	0.237	F1	0.101	0.2480	F1	mg/Kg		10	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Los Medanos 36-23-30 State Battery

Job ID: 890-4479-1
SDG: 03C1558207

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

Lab Sample ID: 880-26842-A-1-G MS

Client Sample ID: Matrix Spike

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 51006

Prep Batch: 50884

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec
	Result	Qualifier		Result	Qualifier				
m-Xylene & p-Xylene	0.575	F1	0.201	0.5756	F1	mg/Kg		0.3	70 - 130
o-Xylene	0.217	F1	0.101	0.2325	F1	mg/Kg		15	70 - 130
MS MS									
Surrogate	%Recovery	Qualifier	Limits						
4-Bromofluorobenzene (Surr)	64	S1-	70 - 130						
1,4-Difluorobenzene (Surr)	68	S1-	70 - 130						

Lab Sample ID: 880-26842-A-1-H MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 51006

Prep Batch: 50884

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec	RPD	Limit
	Result	Qualifier		Result	Qualifier						
Benzene	0.193	F1	0.0990	0.2126	F1	mg/Kg		20	70 - 130	7	35
Ethylbenzene	0.237	F1	0.0990	0.2397	F1	mg/Kg		2	70 - 130	3	35
m-Xylene & p-Xylene	0.575	F1	0.198	0.5704	F1	mg/Kg		-2	70 - 130	1	35
o-Xylene	0.217	F1	0.0990	0.2298	F1	mg/Kg		13	70 - 130	1	35
MSD MSD											
Surrogate	%Recovery	Qualifier	Limits								
4-Bromofluorobenzene (Surr)	66	S1-	70 - 130								
1,4-Difluorobenzene (Surr)	74		70 - 130								

Lab Sample ID: MB 880-50904/5-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 51006

Prep Batch: 50904

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene	<0.00200	U	0.00200	mg/Kg		04/11/23 11:19	04/13/23 12:26	1
Toluene	<0.00200	U	0.00200	mg/Kg		04/11/23 11:19	04/13/23 12:26	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		04/11/23 11:19	04/13/23 12:26	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		04/11/23 11:19	04/13/23 12:26	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		04/11/23 11:19	04/13/23 12:26	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		04/11/23 11:19	04/13/23 12:26	1
MB MB								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130			04/11/23 11:19	04/13/23 12:26	1
1,4-Difluorobenzene (Surr)	99		70 - 130			04/11/23 11:19	04/13/23 12:26	1

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

Lab Sample ID: MB 880-50825/1-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 50777

Prep Batch: 50825

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/10/23 11:42	04/10/23 19:57	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/10/23 11:42	04/10/23 19:57	1
Oll Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/10/23 11:42	04/10/23 19:57	1

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QC Sample Results

Client: Ensolum
 Project/Site: Los Medanos 36-23-30 State Battery

Job ID: 890-4479-1
 SDG: 03C1558207

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

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1-Chlorooctane	77		70 - 130	04/10/23 11:42	04/10/23 19:57	1
o-Terphenyl	84		70 - 130	04/10/23 11:42	04/10/23 19:57	1

Lab Sample ID: LCS 880-50825/2-A
 Matrix: Solid
 Analysis Batch: 50777

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 50825

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics (Over C10-C28)	1000	755.0		mg/Kg		76	70 - 130

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	6	S1-	70 - 130
o-Terphenyl	5	S1-	70 - 130

Lab Sample ID: LCSD 880-50825/3-A
 Matrix: Solid
 Analysis Batch: 50777

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 50825

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Diesel Range Organics (Over C10-C28)	1000	772.1		mg/Kg		77	70 - 130	2	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
1-Chlorooctane	6	S1-	70 - 130
o-Terphenyl	5	S1-	70 - 130

Lab Sample ID: 890-4476-A-1-E MS
 Matrix: Solid
 Analysis Batch: 50777

Client Sample ID: Matrix Spike
 Prep Type: Total/NA
 Prep Batch: 50825

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	818.2		mg/Kg		78	70 - 130

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
1-Chlorooctane	70		70 - 130
o-Terphenyl	66	S1-	70 - 130

Lab Sample ID: 890-4476-A-1-F MSD
 Matrix: Solid
 Analysis Batch: 50777

Client Sample ID: Matrix Spike Duplicate
 Prep Type: Total/NA
 Prep Batch: 50825

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit

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QC Sample Results

Client: Ensolum
 Project/Site: Los Medanos 36-23-30 State Battery

Job ID: 890-4479-1
 SDG: 03C1558207

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

Lab Sample ID: 890-4476-A-1-F MSD

Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 50777

Prep Batch: 50825

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Diesel Range Organics (Over C10-C28)	<49.9	U	997	825.1		mg/Kg		78	70 - 130	1	20
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	71		70 - 130								
o-Terphenyl	65	S1-	70 - 130								

Lab Sample ID: MB 880-50902/1-A

Client Sample ID: Method Blank

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 50866

Prep Batch: 50902

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		04/11/23 11:07	04/11/23 21:06	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/11/23 11:07	04/11/23 21:06	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/11/23 11:07	04/11/23 21:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	83		70 - 130			04/11/23 11:07	04/11/23 21:06	1
o-Terphenyl	92		70 - 130			04/11/23 11:07	04/11/23 21:06	1

Lab Sample ID: LCS 880-50902/2-A

Client Sample ID: Lab Control Sample

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 50866

Prep Batch: 50902

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1136		mg/Kg		114	70 - 130
Diesel Range Organics (Over C10-C28)	1000	967.0		mg/Kg		97	70 - 130
Surrogate	%Recovery	Qualifier	Limits				
1-Chlorooctane	9	S1-	70 - 130				
o-Terphenyl	7	S1-	70 - 130				

Lab Sample ID: LCSD 880-50902/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Solid

Prep Type: Total/NA

Analysis Batch: 50866

Prep Batch: 50902

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1102		mg/Kg		110	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	946.9		mg/Kg		95	70 - 130	2	20
Surrogate	%Recovery	Qualifier	Limits						
1-Chlorooctane	9	S1-	70 - 130						
o-Terphenyl	7	S1-	70 - 130						

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QC Sample Results

Client: Ensolum
Project/Site: Los Medanos 36-23-30 State Battery

Job ID: 890-4479-1
SDG: 03C1558207

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

Lab Sample ID: 880-26982-A-1-D MS
Matrix: Solid
Analysis Batch: 50866

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 50902

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier					
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	996	1099		mg/Kg		108		70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	996	1051		mg/Kg		103		70 - 130
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	74		70 - 130							
o-Terphenyl	67	S1-	70 - 130							

Lab Sample ID: 880-26982-A-1-E MSD
Matrix: Solid
Analysis Batch: 50866

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 50902

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	Limits	RPD	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier								
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	998	1116		mg/Kg		110		70 - 130	2		20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1072		mg/Kg		105		70 - 130	2		20
Surrogate	%Recovery	Qualifier	Limits										
1-Chlorooctane	76		70 - 130										
o-Terphenyl	69	S1-	70 - 130										

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-50786/1-A
Matrix: Solid
Analysis Batch: 51058

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB	MB	RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Chloride	<5.00	U	5.00	mg/Kg			04/13/23 13:35	1

Lab Sample ID: LCS 880-50786/2-A
Matrix: Solid
Analysis Batch: 51058

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec	Limits
Chloride	250	236.4		mg/Kg		95		90 - 110

Lab Sample ID: LCSD 880-50786/3-A
Matrix: Solid
Analysis Batch: 51058

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

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec	Limits	RPD	RPD	Limit
Chloride	250	234.6		mg/Kg		94		90 - 110	1		20

QC Sample Results

Client: Ensolum
 Project/Site: Los Medanos 36-23-30 State Battery

Job ID: 890-4479-1
 SDG: 03C1558207

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-4476-A-11-B MS
Matrix: Solid
Analysis Batch: 51058

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	72.0		251	305.0		mg/Kg		93	90 - 110

Lab Sample ID: 890-4476-A-11-C MSD
Matrix: Solid
Analysis Batch: 51058

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	72.0		251	300.8		mg/Kg		91	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: Los Medanos 36-23-30 State Battery

Job ID: 890-4479-1
SDG: 03C1558207

GC VOA

Prep Batch: 50884

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4479-1	SW09	Total/NA	Solid	5035	
890-4479-2	SW10	Total/NA	Solid	5035	
MB 880-50884/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-50884/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-50884/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-26842-A-1-G MS	Matrix Spike	Total/NA	Solid	5035	
880-26842-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 50904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-50904/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 51006

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4479-1	SW09	Total/NA	Solid	8021B	50884
890-4479-2	SW10	Total/NA	Solid	8021B	50884
MB 880-50884/5-A	Method Blank	Total/NA	Solid	8021B	50884
MB 880-50904/5-A	Method Blank	Total/NA	Solid	8021B	50904
LCS 880-50884/1-A	Lab Control Sample	Total/NA	Solid	8021B	50884
LCSD 880-50884/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	50884
880-26842-A-1-G MS	Matrix Spike	Total/NA	Solid	8021B	50884
880-26842-A-1-H MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	50884

Analysis Batch: 51165

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4479-1	SW09	Total/NA	Solid	Total BTEX	
890-4479-2	SW10	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 50777

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4479-1	SW09	Total/NA	Solid	8015B NM	50825
MB 880-50825/1-A	Method Blank	Total/NA	Solid	8015B NM	50825
LCS 880-50825/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	50825
LCSD 880-50825/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	50825
890-4476-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	50825
890-4476-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	50825

Prep Batch: 50825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4479-1	SW09	Total/NA	Solid	8015NM Prep	
MB 880-50825/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-50825/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-50825/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4476-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4476-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 50866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4479-2	SW10	Total/NA	Solid	8015B NM	50902

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QC Association Summary

Client: Ensolum
Project/Site: Los Medanos 36-23-30 State Battery

Job ID: 890-4479-1
SDG: 03C1558207

GC Semi VOA (Continued)

Analysis Batch: 50866 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-50902/1-A	Method Blank	Total/NA	Solid	8015B NM	50902
LCS 880-50902/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	50902
LCSD 880-50902/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	50902
880-26982-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	50902
880-26982-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	50902

Analysis Batch: 50883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4479-1	SW09	Total/NA	Solid	8015 NM	
890-4479-2	SW10	Total/NA	Solid	8015 NM	

Prep Batch: 50902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4479-2	SW10	Total/NA	Solid	8015NM Prep	
MB 880-50902/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-50902/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-50902/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-26982-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-26982-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

HPLC/IC

Leach Batch: 50786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4479-1	SW09	Soluble	Solid	DI Leach	
890-4479-2	SW10	Soluble	Solid	DI Leach	
MB 880-50786/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-50786/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-50786/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4476-A-11-B MS	Matrix Spike	Soluble	Solid	DI Leach	
890-4476-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 51058

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4479-1	SW09	Soluble	Solid	300.0	50786
890-4479-2	SW10	Soluble	Solid	300.0	50786
MB 880-50786/1-A	Method Blank	Soluble	Solid	300.0	50786
LCS 880-50786/2-A	Lab Control Sample	Soluble	Solid	300.0	50786
LCSD 880-50786/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	50786
890-4476-A-11-B MS	Matrix Spike	Soluble	Solid	300.0	50786
890-4476-A-11-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	50786

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Lab Chronicle

Client: Ensolum
Project/Site: Los Medanos 36-23-30 State Battery

Job ID: 890-4479-1
SDG: 03C1558207

Client Sample ID: SW09

Lab Sample ID: 890-4479-1

Date Collected: 04/07/23 08:40

Matrix: Solid

Date Received: 04/07/23 12:52

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	50884	04/11/23 10:01	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51006	04/14/23 06:08	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51165	04/14/23 10:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			50883	04/11/23 09:53	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	50825	04/10/23 11:42	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50777	04/11/23 03:50	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	50786	04/10/23 09:46	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	51058	04/13/23 16:39	SMC	EET MID

Client Sample ID: SW10

Lab Sample ID: 890-4479-2

Date Collected: 04/07/23 08:50

Matrix: Solid

Date Received: 04/07/23 12:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	50884	04/11/23 10:01	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	51006	04/14/23 06:28	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			51165	04/14/23 10:17	SM	EET MID
Total/NA	Analysis	8015 NM		1			50883	04/12/23 09:01	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	50902	04/11/23 11:07	SM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	50866	04/11/23 23:46	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	50786	04/10/23 09:46	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	51058	04/13/23 15:44	SMC	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: Los Medanos 36-23-30 State Battery

Job ID: 890-4479-1
SDG: 03C1558207

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

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ensolum
Project/Site: Los Medanos 36-23-30 State Battery

Job ID: 890-4479-1
SDG: 03C1558207

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: Los Medanos 36-23-30 State Battery

Job ID: 890-4479-1
SDG: 03C1558207

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4479-1	SW09	Solid	04/07/23 08:40	04/07/23 12:52	0 - 4
890-4479-2	SW10	Solid	04/07/23 08:50	04/07/23 12:52	0 - 4

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



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

Chain of Custody

Work Order No: _____

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Project Manager:	Tacoma Morrissey	Bill to: (if different)	Garret 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:	Garret.Green@ExxonMobil.com

Work Order Comments	
Program: <input type="checkbox"/> UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	State of Project:
Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____

Project Name:	Los Medanos 36-23-30 State Battery	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:	03C1558207	Due Date:			
Project Location:	32.2542, -103.8406	Sampler's Name:	Kase Parker		
PO #:		Temp Blank:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Well Ice:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
SAMPLE RECEIPT		Samples Received Intact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Thermometer ID:	11111111
Cooler Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Correction Factor:	1.000		
Sample Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Temperature Reading:	22.2		
Total Containers:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Corrected Temperature:	22.2		

ANALYSIS REQUEST	
CHLORIDES (EPA: 300.0)	<input type="checkbox"/>
TPH (8015)	<input type="checkbox"/>
BTEX (8021)	<input type="checkbox"/>
PRESERVATIVE CODES	
None: NO	DI Water: H ₂ O
Cool: Cool	MeOH: Me
HCL: HC	HNO ₃ : HN
H ₂ SO ₄ : H ₂	NaOH: Na
H ₃ PO ₄ : HP	
NaHSO ₄ : NABIS	
Na ₂ S ₂ O ₃ : NASO ₃	
Zn Acetate+NaOH: Zn	
NaOH+Ascorbic Acid: SAPP	



Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	ANALYSIS REQUEST	PRESERVATIVE CODES	SAMPLE COMMENTS
SW09	S	4/7/2023	8:40	0-4'	Comp	1	<input type="checkbox"/>		Incident ID: NAB1704456898
SW10	S	4/7/2023	8:50	0-4'	Comp	1	<input type="checkbox"/>		Cost Center: 1140031001
									AFE:
									EW 2018.07077 EXP.01
									tmorrissey@ensolum.com

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 AI Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti 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 Ti U Hg: 1631 / 245.1 / 7470 / 7471

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<i>[Signature]</i>	<i>[Signature]</i>	4-7-23 1252			

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4479-1

SDG Number: 03C1558207

Login Number: 4479

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	

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Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4479-1

SDG Number: 03C1558207

Login Number: 4479

List Source: Eurofins Midland

List Number: 2

List Creation: 04/10/23 08:27 AM

Creator: Rodriguez, Leticia

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

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APPENDIX D
NMOCD Notifications

From: [Collins, Melanie](#)
To: [ocd.enviro \(ocd.enviro@emnrd.nm.gov\)](mailto:ocd.enviro@emnrd.nm.gov); [Bratcher, Michael, EMNRD \(mike.bratcher@emnrd.nm.gov\)](mailto:Bratcher, Michael, EMNRD (mike.bratcher@emnrd.nm.gov)); [Hamlet, Robert, EMNRD \(Robert.Hamlet@emnrd.nm.gov\)](mailto:Hamlet, Robert, EMNRD (Robert.Hamlet@emnrd.nm.gov)); [Harimon, Jocelyn, EMNRD \(Jocelyn.Harimon@emnrd.nm.gov\)](mailto:Harimon, Jocelyn, EMNRD (Jocelyn.Harimon@emnrd.nm.gov))
Cc: [Green, Garrett J; DelawareSpills /SM; Tacoma Morrissey](#)
Subject: XTO - Sampling Notification (Week of 4/3/23 - 4/7/23)
Date: Thursday, March 30, 2023 3:27:50 PM
Attachments: [image001.png](#)

[****EXTERNAL EMAIL****]

All,

XTO plans to complete final sampling activities at the sites listed below for the week of April 3, 2023.

Monday

- JRU 21 SWD/ nAB1834656162
- BEU 156 Fire / nAPP2304448906

Friday

- Los Medanos 36-23-30 State Battery/ NAB1704456898

Thank you,

Melanie Collins



Environmental Technician

melanie.collins@exxonmobil.com

432-556-3756

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720

District II
 811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720

District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 229311

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 229311
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bhall	None	7/12/2023