Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	NAB1530834217
District RP	2RP-3375
Facility ID	
Application ID	

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

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

Printed Name: Garrett Green Title: SSHE Coordinator

Signature:  Date: 06/06/2023

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

OCD Only

Received by: Jocelyn Harimon Date: 06/08/2023

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: Robert Hamlet Date: 11/3/2023

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

NM OIL CONSERVATION
ARTESIA DISTRICT
NOV 0 8 2015
RECEIVED

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

nAB1530834217

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P. 260737	Contact: Amy Ruth
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: BEU #169	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-35169

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	17	21S	28E	660	North	1830	West	Eddy

Latitude 32.485733° Longitude -104.111387°

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 6 bbls	Volume Recovered 1 bbl
Source of Release Tank Overflow	Date and Hour of Occurrence 10/26/2015 time unknown	Date and Hour of Discovery 10/26/2015 1 pm
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? N/A	
By Whom? N/A	Date and Hour N/A	
Was a Watercourse Reached? ☐ Yes ☒ 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.*
Vessel liquid level controller failed to shut off causing gas to dump into tanks. Fluid was released from tank hatches. Controller was repaired.

Describe Area Affected and Cleanup Action Taken.*
The leak affected 774 square feet of caliche within the tank battery earthen berm. Vacuum trucks recovered standing fluids.

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:
Printed Name: Amy Ruth
Title: Assistant Remediation Foreman
E-mail Address: ACRuth@basspet.com
Date: 11/03/2015 Phone: 432-661-0571

OIL CONSERVATION DIVISION

Approved by Environmental Specialist: Signed By

Approval Date: 11/4/15 Expiration Date: N/A

Conditions of Approval: Attached ☐
Remediation per O.C.D. Rules & Guidelines
SUBMIT REMEDIATION PROPOSAL NO
LATER THAN: 12/4/15

2RP-3375

* Attach Additional Sheets If Necessary

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	NAB1530834217
District RP	2RP-3375
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 #:
Contact mailing address 3104 E. Greene Street, Carlsbad, New Mexico, 88220	

Location of Release Source

Latitude 32.485733 Longitude -104.111387
(NAD 83 in decimal degrees to 5 decimal places)

Site Name BEU #169	Site Type Exploration and Production
Date Release Discovered 10/26/2015	API# *(if applicable)* 30-015-35169

Unit Letter	Section	Township	Range	County
C	17	21S	28E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (*Name:* BLM)

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 6	Volume Recovered (bbls) 1
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Vessel liquid level controller failed to shut off causing gas to dump into tanks. Fluid was released from tank hatches. Controller was repaired. The leak affected 774 square feet of caliche within the tank battery earthen berm. Vacuum trucks recovered standing fluids.

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Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAB1530834217
District RP	2RP-3375
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Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release? N/A
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? N/A	

Initial Response

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

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

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

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

Printed Name: Garrett Green Title: SSHE Coordinator

Signature: Date: 06-05-2023

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

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	NAB1530834217
District RP	2RP-3375
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?	<50 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☒ Yes ☐ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
☒ Field data
☒ Data table of soil contaminant concentration data
☒ Depth to water determination
☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
☒ Boring or excavation logs
☒ Photographs including date and GIS information
☒ Topographic/Aerial maps
☒ Laboratory data including chain of custody

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

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Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAB1530834217
District RP	2RP-3375
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Printed Name: Garrett Green Title: SSHE Coordinator

Signature: Date: 06/06/2023

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

OCD Only

Received by: Jocelyn Harimon Date: 06/08/2023

State of New Mexico
Oil Conservation Division

Incident ID	NAB1530834217
District RP	2RP-3375
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Closure

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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: 06/06/2023

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

OCD Only

Received by: Jocelyn Harimon Date: 06/08/2023

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: _____

Printed Name: _____ Title: _____

ENSOLUM

June 5, 2023

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

Re: Closure Request
BEU #169
Incident Number NAB1530834217
Eddy County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared the following *Closure Request* as a follow-up to the *Deferral Request* dated May 6, 2019. This *Closure Request* provides an update to the excavation and soil sampling activities completed at the Big Eddy Unit (BEU) #169 (Site) following final plugging and abandonment of the well and removal of the surface production equipment. Based on the additional remediation activities described below, XTO is submitting this *Closure Request* and requesting no further action and closure for Incident Number NAB1530834217.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit C, Section 17, Township 21 South, Range 28 East, in Eddy County, New Mexico (32.485733°, -104.111387°) and is associated with oil and gas exploration and production operations on Federal land managed by the Bureau of Land Management (BLM).

On October 26, 2015, a vessel liquid-level controller failed to shut off, which caused gas to dump into the tanks and release crude oil from the tank hatches into the earthen tank battery containment berm. Approximately 6 barrels (bbls) of crude oil were released, affecting approximately 774 square feet within the containment berm. The controller was repaired, and a vacuum truck was dispatched to the Site to recover the free-standing fluid; approximately 1 bbl of oil was recovered. The former operator reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification and Corrective Action Form C-141 (Form C-141) on November 3, 2015. The release was assigned Remediation Permit (RP) Number 2RP-3375 and Incident Number NAB1530834217.

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 19.15.29 of the New Mexico Administrative Code (NMAC) as amended on August 14, 2018.

BACKGROUND

The original *Deferral 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 NMAC. Results from the

site characterization are presented on page 3 of the Form C-141, Site Assessment/Characterization. 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): 100 mg/kg
- Chloride: 600 mg/kg

Between August 2018 and March 2019, excavation activities were conducted at the Site to address the impacted soil resulting from the October 26, 2015, crude oil release. Impacted soil was excavated to the maximum extent possible; however, an estimated 200 cubic yards of impacted soil were left in place for compliance with XTO safety policy regarding earth-moving activities within two feet of active production equipment and pipelines. This policy was enforced where impacted soil was identified within two feet of active production equipment in excavation sidewall samples SW05, SW10, SW13, and SW14. The impacted soil left in-place was laterally and vertically delineated to below the Site Closure Criteria. Additional details regarding the excavation and soil sampling activities can be referenced in the original *Deferral Request,* submitted to NMOCD on May 6, 2019.

On March 9, 2023, NMOCD denied the *Deferral Request* for Incident Number nAB1530834217 for the following reason:

- *This report is being rejected based on OCD records that this site has been plugged and abandoned. The site will need to meet the requirements of 19.15.29 NMAC.*

Upon inspection of the Site, it was confirmed that the well was plugged and abandoned and all surface production equipment had been removed from the Site. Based on removal of the storage tanks and access to the original deferral area, final remediation of the Site was scheduled.

EXCAVATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

During May 2023, Ensolum personnel were at the Site to oversee excavation activities to remove the impacted soil remaining in-place in the former storage tank containment area, as indicated by original excavation sidewall samples SW05, SW10, SW13, and SW14. Excavation activities were performed using a backhoe and transport vehicles. To direct excavation activities, soil was screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The excavation was completed to depths ranging from 4 feet to 5 feet bgs. Photographic documentation of the excavation activities is included in Appendix A.

Following removal of the impacted soil, 5-point composite soil samples were collected every 200 square feet from the floor and sidewalls of the excavation. 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. Composite soil samples FS07 through FS11 were collected from the floor of the excavation at depths ranging from 4 feet to 5 feet bgs. Composite soil samples SW25 through SW29 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 5 feet bgs. The excavation extent and excavation soil sample locations are presented on Figure 2.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported

under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following chemicals of concern (COC): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for excavation floor samples FS07 through FS11 and excavation sidewall samples SW25 and SW27 through SW29 indicated all COC concentrations were compliant with the Site Closure Criteria. Laboratory analytical results for excavation sidewall sample SW26 indicated that TPH concentrations exceeded the Site Closure Criteria; additional soil was removed from the sidewall and subsequent sidewall sample SW29 was compliant. Additionally, as documented in the original May 6, 2019, *Deferral Request* excavation sidewall samples SW03, SW08, and SW21 initially exceeded the Site Closure Criteria for TPH or chloride; additional soil was removed from these areas and subsequent samples SW22, SW23, and SW24 were compliant. Laboratory analytical results for the 2018, 2019, and 2023 excavation samples, collected from the final excavation extent, were compliant with the Site Closure Criteria and reclamation requirements. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as Appendix B.

The excavation area measured approximately 2,080 square feet. A total of 475 cubic yards of impacted soil were removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility in Hobbs, New Mexico. The excavation will be backfilled with locally sourced topsoil and contoured to match the surrounding grade. The reclaimed well pad will be seeded with an approved BLM seed mixture.

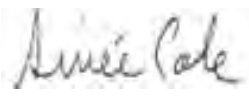
CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the October 26, 2015, crude oil release within the former storage tank containment. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated all COCs were compliant with the Site Closure Criteria and reclamation requirements. Based on the soil sample analytical results, no further remediation was required.

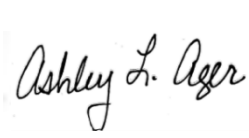
Initial response efforts, natural attenuation, and excavation of impacted soil have mitigated impacts at this Site. XTO believes the remedial actions completed are protective of human health, the environment, and groundwater. As such, XTO respectfully requests closure for Incident Number nAB1530834217.

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
Bureau of Land Management

Appendices:

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

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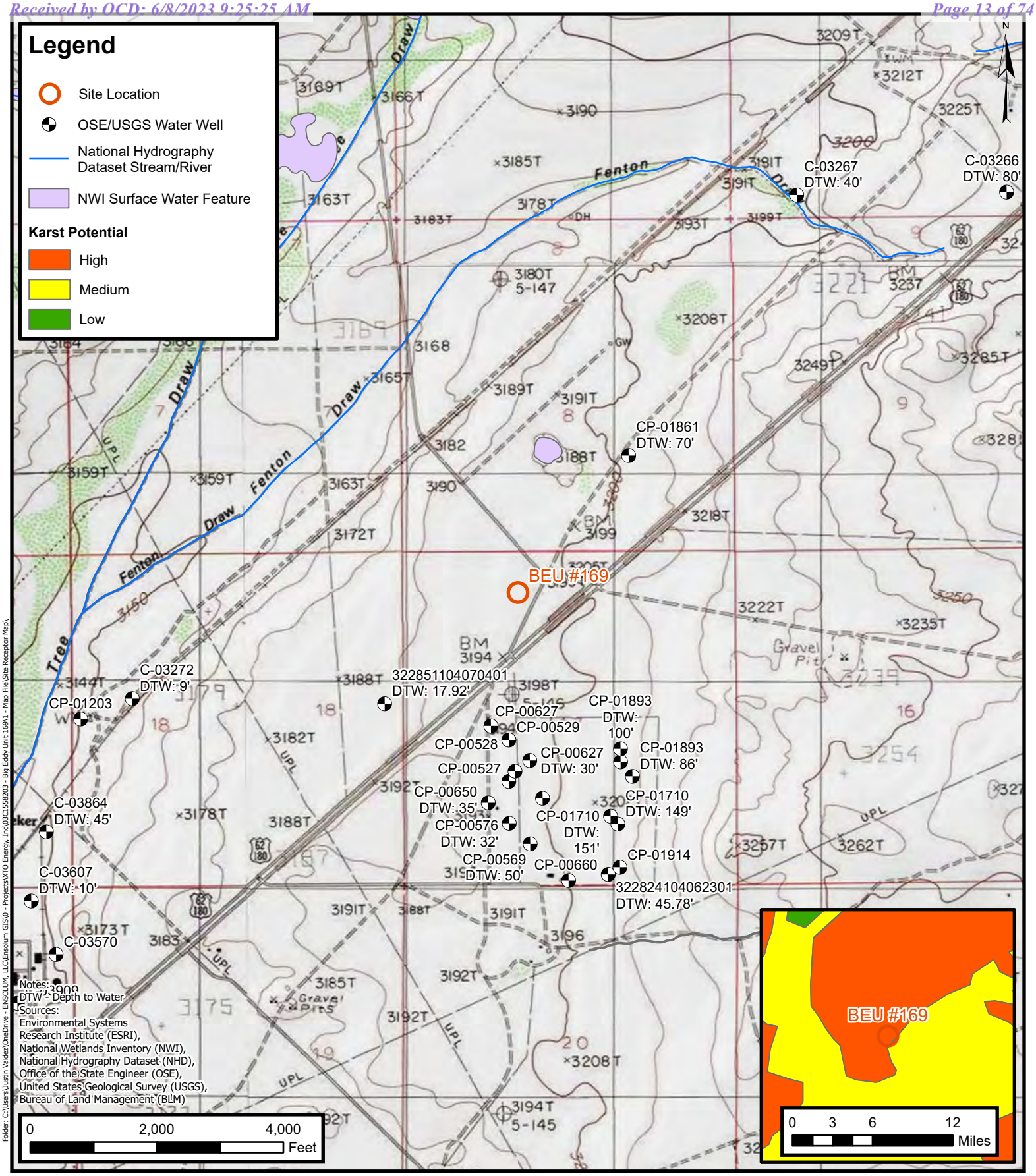
FIGURES



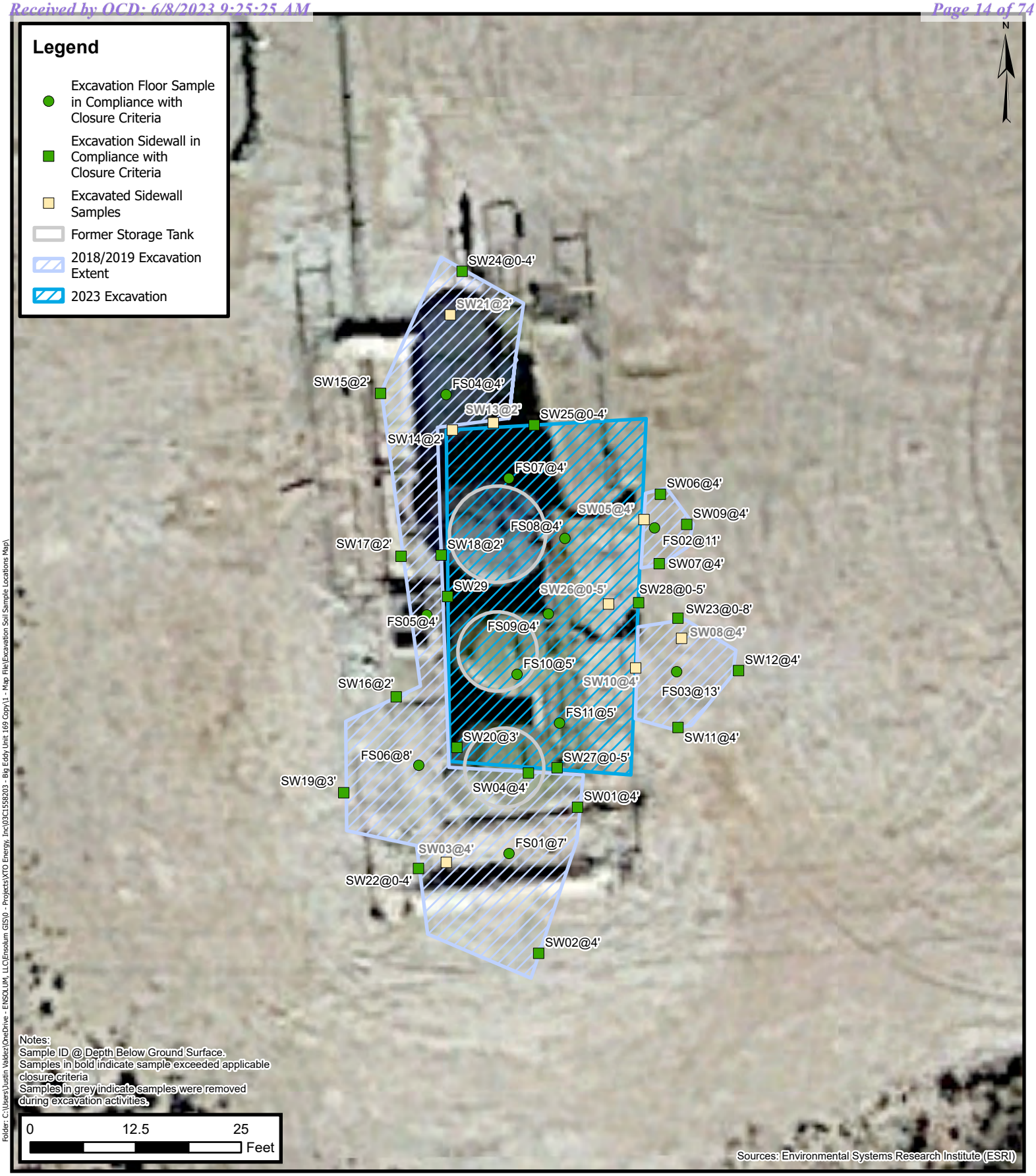
Folder: C:\Users\Justin Valdez\OneDrive - ENSOLUM, LLC\Ensolum GIS\0 - Projects\XTO Energy, Inc\03C1558203 - Big Eddy Unit 169\1 - Map File\Site Receptor Map\

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

XTO Energy, Inc
BEU #169
Incident Number: NAB1530834217
Unit C, Sec 17, Township 21 South, Range 28 East
Eddy County, New Mexico

FIGURE 1



Folder: C:\Users\Justin Valdez\OneDrive - ENSOLUM, LLC\Ensolum GIS\0 - Projects\XTO Energy, Inc\03C1558203 - Big Eddy Unit 169 Copy\1 - Map File\Excavation Soil Sample Locations Map\

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Excavation Extent

XTO Energy, Inc
BEU #169
Incident Number: NAB1530834217
Unit C, Sec 17, Township 21 South, Range 28 East
Eddy County, New Mexico

FIGURE 2

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
BEU #169
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 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	50	100	600
Excavation Floor Soil Samples										
FS01	08/01/2018	7	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	35.2
FS02	08/06/2018	11	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	73 .0
FS03	08/06/2018	13	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	118
FS04	08/06/2018	4	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	289
FS05	08/07/2018	4	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	101
FS06	08/07/2018	8	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	8.84
FS07	05/02/2023	4	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	229
FS08	05/02/2023	4	<0.00198	<0.00396	<49.8	<49.8	<49.8	<49.8	<49.8	82.2
FS09	05/02/2023	5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	151
FS10	05/02/2023	5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	150
FS11	05/08/2023	5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	246
Excavation Sidewall Soil Samples										
SW01	08/02/2018	4	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	95.0
SW02	08/02/2018	4	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	90.4
~~SW03~~	~~08/01/2018~~	~~4~~	~~<0.00201~~	~~<0.00201~~	~~<15.0~~	~~<15.0~~	~~<15.0~~	~~<15.0~~	~~<15.0~~	~~**757**~~
SW04	08/06/2018	4	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	11.8
~~SW05~~	~~08/06/2018~~	~~4~~	~~<0.00198~~	~~<0.00198~~	~~<15.0~~	~~397~~	~~30.5~~	~~397~~	~~**428**~~	~~**1,950**~~
SW06	08/06/2018	4	<0.00201	<0.00201	<14.9	38.0	<14.9	38.0	38.0	83.0
SW07	08/06/2018	4	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	53.2
~~SW08~~	~~08/06/2018~~	~~4~~	~~<0.00200~~	~~<0.00200~~	~~<15.0~~	~~1,720~~	~~25.0~~	~~1,720~~	~~**1,750**~~	~~109~~
SW09	08/06/2018	4	<0.00201	<0.00201	<15.0	<15.0	<15.0	<15.0	<15.0	58.2
~~SW10~~	~~08/06/2018~~	~~4~~	~~<0.00199~~	~~0.0173~~	~~71.1~~	~~2,800~~	~~15.2~~	~~2,871~~	~~**2,890**~~	~~90.8~~
SW11	08/06/2018	4	<0.00200	0.00995	<15.0	<15.0	<15.0	<15.0	<15.0	241
SW12	08/06/2018	4	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	91.8
~~SW13~~	~~08/07/2018~~	~~2~~	~~<0.00200~~	~~<0.00200~~	~~<15.0~~	~~<15.0~~	~~<15.0~~	~~<15.0~~	~~<15.0~~	~~**849**~~
~~SW14~~	~~08/07/2018~~	~~2~~	~~<0.00201~~	~~<0.00201~~	~~<14.9~~	~~967~~	~~<14.9~~	~~967~~	~~**967**~~	~~**1,690**~~
SW15	08/07/2018	2	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	338
SW16	08/07/2018	2	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	69.0
SW17	08/07/2018	2	<0.00202	<0.00202	<15.0	<15.0	<15.0	<15.0	<15.0	96.0
SW18	08/07/2018	2	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	5.96
SW19	08/07/2018	3	<0.00198	<0.00198	<15.0	<15.0	<15.0	<15.0	<15.0	20.3
SW20	08/07/2018	3	<0.00202	<0.00202	<15.0	15.9	<15.0	15.9	15.9	458

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
BEU #169
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 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	50	100	600
~~SW21~~	~~08/07/2018~~	~~2~~	~~<0.00199~~	~~<0.00199~~	~~<15.0~~	~~165~~	~~15.1~~	~~165~~	~~**180**~~	~~502~~
SW22	03/20/2019	0-4	<0.00199	<0.00199	<15.0	<15.0	<15.0	<15.0	<15.0	33.6
SW23	03/21/2019	0-8	<0.00200	<0.00200	<15.0	<15.0	<15.0	<15.0	<15.0	136
SW24	03/21/2019	0-4	<0.00200	<0.00200	<14.9	<14.9	<14.9	<14.9	<14.9	300
SW25	05/02/2023	0-4	<0.00199	<0.00398	<50.0	75.0	<50.0	75.0	75.0	197
~~SW26~~	~~05/02/2023~~	~~0-5~~	~~<0.00198~~	~~<0.00396~~	~~<49.9~~	~~488~~	~~105~~	~~488~~	~~**593**~~	~~246~~
SW27	05/02/2023	0-5	<0.00202	<0.00403	<50.0	<50.0	<50.0	<50.0	<50.0	61.2
SW28	05/08/2023	0-5	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	307
SW29	05/08/2023	0-5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	126

Notes:

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

ENSOLUM

APPENDIX A

Photographic Log

ENSOLUM

Photographic Log
XTO Energy, Inc
BEU #169
NAB1530834217

Photograph 1 Date: 04/03/2023
Description: Former location of tank battery
View: North

Photograph 2 Date: 05/01/2023
Description: Delineation activities prior to excavation
View: Southeast

Photograph 3 Date: 05/02/2023
Description: Excavation activities
View: Southeast

Photograph 4 Date: 05/08/2023
Description: Completed excavation
View: Northeast

ENSOLUM

APPENDIX B

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 5/4/2023 7:48:15 PM

JOB DESCRIPTION

BEU 169
SDG NUMBER 03C1558203

JOB NUMBER

890-4609-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

my EOL

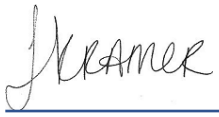
Eurofins Carlsbad

Job Notes

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

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

Authorization



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5/4/2023 7:48:15 PM

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

Client: Ensolum
Project/Site: BEU 169

Laboratory Job ID: 890-4609-1
SDG: 03C1558203

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4609-1
SDG: 03C1558203

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
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.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4609-1
SDG: 03C1558203

Job ID: 890-4609-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4609-1

Receipt
The samples were received on 5/2/2023 3:14 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 5.2°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SW25 (890-4609-1), SW26 (890-4609-2), SW27 (890-4609-3), FS07 (890-4609-4), FS08 (890-4609-5), FS09 (890-4609-6) and FS10 (890-4609-7).

GC VOA
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-52509 and analytical batch 880-52565 was outside the upper control limits.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate compounds were inadvertently omitted during the extraction process for the following samples: FS07 (890-4609-4), FS08 (890-4609-5), FS09 (890-4609-6) and FS10 (890-4609-7).

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-52568/2-A), (LCSD 880-52568/3-A), (MB 880-52568/1-A), (880-27935-A-21-A) and (880-27935-A-21-C MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike (MS) recoveries for preparation batch 880-52487 and 880-52487 and analytical batch 880-52634 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.The associated samples are: SW25 (890-4609-1), SW26 (890-4609-2), SW27 (890-4609-3), FS07 (890-4609-4), FS08 (890-4609-5), FS09 (890-4609-6), FS10 (890-4609-7), (CCB 880-52634/19), (CCV 880-52634/18) and (890-4609-A-1-C MS).

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: BEU 169

Job ID: 890-4609-1
SDG: 03C1558203

Client Sample ID: SW25

Lab Sample ID: 890-4609-1
Matrix: Solid
Date Collected: 05/02/23 10:55
Date Received: 05/02/23 15:14
Sample Depth: 0-4'

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		05/04/23 08:55	05/04/23 12:16	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/04/23 08:55	05/04/23 12:16	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/04/23 08:55	05/04/23 12:16	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/04/23 08:55	05/04/23 12:16	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/04/23 08:55	05/04/23 12:16	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/04/23 08:55	05/04/23 12:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*05/04/23 08:55*	*05/04/23 12:16*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*05/04/23 08:55*	*05/04/23 12:16*	*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			05/04/23 20:39	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**75.0**		50.0		mg/Kg			05/04/23 20:38	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		05/04/23 08:54	05/04/23 15:37	1
Diesel Range Organics (Over C10-C28)	**75.0**		50.0		mg/Kg		05/04/23 08:54	05/04/23 15:37	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/04/23 08:54	05/04/23 15:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*05/04/23 08:54*	*05/04/23 15:37*	*1*
o-Terphenyl	*128*		*70 - 130*	*05/04/23 08:54*	*05/04/23 15:37*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**197**	**F1**	5.05		mg/Kg			05/04/23 15:31	1

Client Sample ID: SW26

Lab Sample ID: 890-4609-2
Matrix: Solid
Date Collected: 05/02/23 11:00
Date Received: 05/02/23 15:14
Sample Depth: 0-5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/04/23 08:55	05/04/23 12:36	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/04/23 08:55	05/04/23 12:36	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/04/23 08:55	05/04/23 12:36	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		05/04/23 08:55	05/04/23 12:36	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/04/23 08:55	05/04/23 12:36	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/04/23 08:55	05/04/23 12:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*05/04/23 08:55*	*05/04/23 12:36*	*1*

Client Sample Results

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4609-1
SDG: 03C1558203

Client Sample ID: SW26

Date Collected: 05/02/23 11:00
Date Received: 05/02/23 15:14
Sample Depth: 0-5'

Lab Sample ID: 890-4609-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*75*		*70 - 130*	*05/04/23 08:55*	*05/04/23 12:36*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			05/04/23 20:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**593**		49.9	mg/Kg			05/04/23 20:38	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		05/04/23 08:54	05/04/23 15:59	1
Diesel Range Organics (Over C10-C28)	**488**		49.9	mg/Kg		05/04/23 08:54	05/04/23 15:59	1
Oil Range Organics (Over C28-C36)	**105**		49.9	mg/Kg		05/04/23 08:54	05/04/23 15:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*119*		*70 - 130*	*05/04/23 08:54*	*05/04/23 15:59*	*1*
o-Terphenyl	*129*		*70 - 130*	*05/04/23 08:54*	*05/04/23 15:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**246**		4.99	mg/Kg			05/04/23 15:45	1

Client Sample ID: SW27

Date Collected: 05/02/23 13:55
Date Received: 05/02/23 15:14
Sample Depth: 0-5'

Lab Sample ID: 890-4609-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		05/04/23 08:55	05/04/23 12:57	1
Toluene	<0.00202	U	0.00202	mg/Kg		05/04/23 08:55	05/04/23 12:57	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		05/04/23 08:55	05/04/23 12:57	1
m-Xylene & p-Xylene	<0.00403	U	0.00403	mg/Kg		05/04/23 08:55	05/04/23 12:57	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		05/04/23 08:55	05/04/23 12:57	1
Xylenes, Total	<0.00403	U	0.00403	mg/Kg		05/04/23 08:55	05/04/23 12:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*05/04/23 08:55*	*05/04/23 12:57*	*1*
1,4-Difluorobenzene (Surr)	*79*		*70 - 130*	*05/04/23 08:55*	*05/04/23 12:57*	*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			05/04/23 20:39	1

Client Sample Results

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4609-1
SDG: 03C1558203

Client Sample ID: SW27

Lab Sample ID: 890-4609-3
Matrix: Solid
Date Collected: 05/02/23 13:55
Date Received: 05/02/23 15:14
Sample Depth: 0-5'

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			05/04/23 20:38	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		05/04/23 08:54	05/04/23 16:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/04/23 08:54	05/04/23 16:56	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/04/23 08:54	05/04/23 16:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*99*		*70 - 130*	*05/04/23 08:54*	*05/04/23 16:56*	*1*
o-Terphenyl	*98*		*70 - 130*	*05/04/23 08:54*	*05/04/23 16:56*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**61.2**		4.96		mg/Kg			05/04/23 15:50	1

Client Sample ID: FS07

Lab Sample ID: 890-4609-4
Matrix: Solid
Date Collected: 05/02/23 10:00
Date Received: 05/02/23 15:14
Sample Depth: 4'

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		05/04/23 08:55	05/04/23 13:17	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/04/23 08:55	05/04/23 13:17	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/04/23 08:55	05/04/23 13:17	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/04/23 08:55	05/04/23 13:17	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/04/23 08:55	05/04/23 13:17	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/04/23 08:55	05/04/23 13:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*05/04/23 08:55*	*05/04/23 13:17*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*	*05/04/23 08:55*	*05/04/23 13:17*	*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			05/04/23 20:39	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			05/04/23 20:38	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		05/04/23 08:54	05/04/23 17:18	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/04/23 08:54	05/04/23 17:18	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/04/23 08:54	05/04/23 17:18	1

Client Sample Results

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4609-1
SDG: 03C1558203

Client Sample ID: FS07

Lab Sample ID: 890-4609-4
Matrix: Solid
Date Collected: 05/02/23 10:00
Date Received: 05/02/23 15:14
Sample Depth: 4'

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*4*	*S1-*	*70 - 130*	*05/04/23 08:54*	*05/04/23 17:18*	*1*
o-Terphenyl	*0.6*	*S1-*	*70 - 130*	*05/04/23 08:54*	*05/04/23 17:18*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**229**		5.04	mg/Kg			05/04/23 15:55	1

Client Sample ID: FS08

Lab Sample ID: 890-4609-5
Matrix: Solid
Date Collected: 05/02/23 10:05
Date Received: 05/02/23 15:14
Sample Depth: 4'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		05/04/23 08:55	05/04/23 13:38	1
Toluene	<0.00198	U	0.00198	mg/Kg		05/04/23 08:55	05/04/23 13:38	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		05/04/23 08:55	05/04/23 13:38	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		05/04/23 08:55	05/04/23 13:38	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		05/04/23 08:55	05/04/23 13:38	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		05/04/23 08:55	05/04/23 13:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*05/04/23 08:55*	*05/04/23 13:38*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*05/04/23 08:55*	*05/04/23 13:38*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			05/04/23 20:39	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			05/04/23 20:38	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		05/04/23 08:54	05/04/23 17:39	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		05/04/23 08:54	05/04/23 17:39	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		05/04/23 08:54	05/04/23 17:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*5*	*S1-*	*70 - 130*	*05/04/23 08:54*	*05/04/23 17:39*	*1*
o-Terphenyl	*0.6*	*S1-*	*70 - 130*	*05/04/23 08:54*	*05/04/23 17:39*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**82.2**		4.97	mg/Kg			05/04/23 16:00	1

Client Sample Results

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4609-1
SDG: 03C1558203

Client Sample ID: FS09

Lab Sample ID: 890-4609-6
Matrix: Solid
Date Collected: 05/02/23 10:10
Date Received: 05/02/23 15:14
Sample Depth: 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		05/04/23 08:55	05/04/23 13:58	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/04/23 08:55	05/04/23 13:58	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/04/23 08:55	05/04/23 13:58	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/04/23 08:55	05/04/23 13:58	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/04/23 08:55	05/04/23 13:58	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/04/23 08:55	05/04/23 13:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*05/04/23 08:55*	*05/04/23 13:58*	*1*
1,4-Difluorobenzene (Surr)	*81*		*70 - 130*	*05/04/23 08:55*	*05/04/23 13:58*	*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			05/04/23 20:39	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			05/04/23 20:38	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		05/04/23 08:54	05/04/23 18:00	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/04/23 08:54	05/04/23 18:00	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/04/23 08:54	05/04/23 18:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*5*	*S1-*	*70 - 130*	*05/04/23 08:54*	*05/04/23 18:00*	*1*
o-Terphenyl	*0.5*	*S1-*	*70 - 130*	*05/04/23 08:54*	*05/04/23 18:00*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**151**		5.05		mg/Kg			05/04/23 16:14	1

Client Sample ID: FS10

Lab Sample ID: 890-4609-7
Matrix: Solid
Date Collected: 05/02/23 10:15
Date Received: 05/02/23 15:14
Sample Depth: 5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/04/23 08:55	05/04/23 14:19	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/04/23 08:55	05/04/23 14:19	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/04/23 08:55	05/04/23 14:19	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/04/23 08:55	05/04/23 14:19	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/04/23 08:55	05/04/23 14:19	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/04/23 08:55	05/04/23 14:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*05/04/23 08:55*	*05/04/23 14:19*	*1*

Client Sample Results

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4609-1
SDG: 03C1558203

Client Sample ID: FS10

Date Collected: 05/02/23 10:15
Date Received: 05/02/23 15:14
Sample Depth: 5'

Lab Sample ID: 890-4609-7

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*79*		*70 - 130*	*05/04/23 08:55*	*05/04/23 14:19*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			05/04/23 20:39	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			05/04/23 20:38	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		05/04/23 08:54	05/04/23 18:22	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/04/23 08:54	05/04/23 18:22	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/04/23 08:54	05/04/23 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*2*	*S1-*	*70 - 130*	*05/04/23 08:54*	*05/04/23 18:22*	*1*
o-Terphenyl	*0.4*	*S1-*	*70 - 130*	*05/04/23 08:54*	*05/04/23 18:22*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**150**		5.02		mg/Kg			05/04/23 16:19	1

Surrogate Summary

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4609-1
SDG: 03C1558203

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)
890-4605-A-1-B MS	Matrix Spike	118	104
890-4605-A-1-C MSD	Matrix Spike Duplicate	115	104
890-4609-1	SW25	102	81
890-4609-2	SW26	95	75
890-4609-3	SW27	99	79
890-4609-4	FS07	83	72
890-4609-5	FS08	83	84
890-4609-6	FS09	102	81
890-4609-7	FS10	99	79
LCS 880-52509/1-A	Lab Control Sample	106	105
LCSD 880-52509/2-A	Lab Control Sample Dup	113	103
MB 880-52509/5-A	Method Blank	68 S1-	93

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)
880-27935-A-21-B MS	Matrix Spike	114	125
880-27935-A-21-C MSD	Matrix Spike Duplicate	128	137 S1+
890-4609-1	SW25	113	128
890-4609-2	SW26	119	129
890-4609-3	SW27	99	98
890-4609-4	FS07	4 S1-	0.6 S1-
890-4609-5	FS08	5 S1-	0.6 S1-
890-4609-6	FS09	5 S1-	0.5 S1-
890-4609-7	FS10	2 S1-	0.4 S1-
LCS 880-52568/2-A	Lab Control Sample	124	144 S1+
LCSD 880-52568/3-A	Lab Control Sample Dup	115	135 S1+
MB 880-52568/1-A	Method Blank	161 S1+	196 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4609-1
SDG: 03C1558203

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-52509/5-A
Matrix: Solid
Analysis Batch: 52565

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 52509

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/03/23 12:55	05/04/23 10:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/03/23 12:55	05/04/23 10:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/03/23 12:55	05/04/23 10:53	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/03/23 12:55	05/04/23 10:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/03/23 12:55	05/04/23 10:53	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/03/23 12:55	05/04/23 10:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*05/03/23 12:55*	*05/04/23 10:53*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*05/03/23 12:55*	*05/04/23 10:53*	*1*

Lab Sample ID: LCS 880-52509/1-A
Matrix: Solid
Analysis Batch: 52565

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 52509

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1220		mg/Kg		122	70 - 130		
Toluene			0.100	0.1064		mg/Kg		106	70 - 130		
Ethylbenzene			0.100	0.1128		mg/Kg		113	70 - 130		
m-Xylene & p-Xylene			0.200	0.2360		mg/Kg		118	70 - 130		
o-Xylene			0.100	0.1159		mg/Kg		116	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: LCSD 880-52509/2-A
Matrix: Solid
Analysis Batch: 52565

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 52509

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1238		mg/Kg		124	70 - 130	1	35
Toluene			0.100	0.1120		mg/Kg		112	70 - 130	5	35
Ethylbenzene			0.100	0.1218		mg/Kg		122	70 - 130	8	35
m-Xylene & p-Xylene			0.200	0.2494		mg/Kg		125	70 - 130	6	35
o-Xylene			0.100	0.1222		mg/Kg		122	70 - 130	5	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-4605-A-1-B MS
Matrix: Solid
Analysis Batch: 52565

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 52509

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.100	0.09291		mg/Kg		93	70 - 130		
Toluene	<0.00201	U	0.100	0.09648		mg/Kg		96	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4609-1
SDG: 03C1558203

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

Lab Sample ID: 890-4605-A-1-B MS
Matrix: Solid
Analysis Batch: 52565

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 52509

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.100	0.1113		mg/Kg		111	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.2287		mg/Kg		114	70 - 130
o-Xylene	<0.00201	U	0.100	0.1147		mg/Kg		114	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: 890-4605-A-1-C MSD
Matrix: Solid
Analysis Batch: 52565

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 52509

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0996	0.08944		mg/Kg		90	70 - 130	4	35
Toluene	<0.00201	U	0.0996	0.08972		mg/Kg		90	70 - 130	7	35
Ethylbenzene	<0.00201	U	0.0996	0.1041		mg/Kg		104	70 - 130	7	35
m-Xylene & p-Xylene	<0.00402	U	0.199	0.2096		mg/Kg		105	70 - 130	9	35
o-Xylene	<0.00201	U	0.0996	0.1055		mg/Kg		106	70 - 130	8	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

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

Lab Sample ID: MB 880-52568/1-A
Matrix: Solid
Analysis Batch: 52589

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 52568

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		05/04/23 08:54	05/04/23 08:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/04/23 08:54	05/04/23 08:19	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/04/23 08:54	05/04/23 08:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*161*	*S1+*	*70 - 130*	*05/04/23 08:54*	*05/04/23 08:19*	*1*
o-Terphenyl	*196*	*S1+*	*70 - 130*	*05/04/23 08:54*	*05/04/23 08:19*	*1*

Lab Sample ID: LCS 880-52568/2-A
Matrix: Solid
Analysis Batch: 52589

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 52568

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	1107		mg/Kg		111	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1116		mg/Kg		112	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4609-1
SDG: 03C1558203

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

Lab Sample ID: LCS 880-52568/2-A
Matrix: Solid
Analysis Batch: 52589

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 52568

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	124		70 - 130
o-Terphenyl	144	S1+	70 - 130

Lab Sample ID: LCSD 880-52568/3-A
Matrix: Solid
Analysis Batch: 52589

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 52568

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1167		mg/Kg		117	70 - 130	5	20
Diesel Range Organics (Over C10-C28)			1000	992.3		mg/Kg		99	70 - 130	12	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	115		70 - 130
o-Terphenyl	135	S1+	70 - 130

Lab Sample ID: 880-27935-A-21-B MS
Matrix: Solid
Analysis Batch: 52589

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 52568

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 F2	1000	908.6		mg/Kg		89	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	1000	1002		mg/Kg		97	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	114		70 - 130
o-Terphenyl	125		70 - 130

Lab Sample ID: 880-27935-A-21-C MSD
Matrix: Solid
Analysis Batch: 52589

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 52568

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 F2	998	1216	F2	mg/Kg		120	70 - 130	29	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	1117		mg/Kg		109	70 - 130	11	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	128		70 - 130
o-Terphenyl	137	S1+	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4609-1
SDG: 03C1558203

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-52487/1-A
Matrix: Solid
Analysis Batch: 52634

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			05/04/23 15:16	1

Lab Sample ID: LCS 880-52487/2-A
Matrix: Solid
Analysis Batch: 52634

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	258.4		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-52487/3-A
Matrix: Solid
Analysis Batch: 52634

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	251.6		mg/Kg		101	90 - 110	3	20

Lab Sample ID: 890-4609-1 MS
Matrix: Solid
Analysis Batch: 52634

Client Sample ID: SW25
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	197	F1	253	421.7	F1	mg/Kg		89	90 - 110		

Lab Sample ID: 890-4609-1 MSD
Matrix: Solid
Analysis Batch: 52634

Client Sample ID: SW25
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	197	F1	253	423.4		mg/Kg		90	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4609-1
SDG: 03C1558203

GC VOA

Prep Batch: 52509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4609-1	SW25	Total/NA	Solid	5035	
890-4609-2	SW26	Total/NA	Solid	5035	
890-4609-3	SW27	Total/NA	Solid	5035	
890-4609-4	FS07	Total/NA	Solid	5035	
890-4609-5	FS08	Total/NA	Solid	5035	
890-4609-6	FS09	Total/NA	Solid	5035	
890-4609-7	FS10	Total/NA	Solid	5035	
MB 880-52509/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-52509/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-52509/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4605-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-4605-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 52565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4609-1	SW25	Total/NA	Solid	8021B	52509
890-4609-2	SW26	Total/NA	Solid	8021B	52509
890-4609-3	SW27	Total/NA	Solid	8021B	52509
890-4609-4	FS07	Total/NA	Solid	8021B	52509
890-4609-5	FS08	Total/NA	Solid	8021B	52509
890-4609-6	FS09	Total/NA	Solid	8021B	52509
890-4609-7	FS10	Total/NA	Solid	8021B	52509
MB 880-52509/5-A	Method Blank	Total/NA	Solid	8021B	52509
LCS 880-52509/1-A	Lab Control Sample	Total/NA	Solid	8021B	52509
LCSD 880-52509/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	52509
890-4605-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	52509
890-4605-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	52509

Analysis Batch: 52653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4609-1	SW25	Total/NA	Solid	Total BTEX	
890-4609-2	SW26	Total/NA	Solid	Total BTEX	
890-4609-3	SW27	Total/NA	Solid	Total BTEX	
890-4609-4	FS07	Total/NA	Solid	Total BTEX	
890-4609-5	FS08	Total/NA	Solid	Total BTEX	
890-4609-6	FS09	Total/NA	Solid	Total BTEX	
890-4609-7	FS10	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 52568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4609-1	SW25	Total/NA	Solid	8015NM Prep	
890-4609-2	SW26	Total/NA	Solid	8015NM Prep	
890-4609-3	SW27	Total/NA	Solid	8015NM Prep	
890-4609-4	FS07	Total/NA	Solid	8015NM Prep	
890-4609-5	FS08	Total/NA	Solid	8015NM Prep	
890-4609-6	FS09	Total/NA	Solid	8015NM Prep	
890-4609-7	FS10	Total/NA	Solid	8015NM Prep	
MB 880-52568/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-52568/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4609-1
SDG: 03C1558203

GC Semi VOA (Continued)

Prep Batch: 52568 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-52568/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-27935-A-21-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-27935-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 52589

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4609-1	SW25	Total/NA	Solid	8015B NM	52568
890-4609-2	SW26	Total/NA	Solid	8015B NM	52568
890-4609-3	SW27	Total/NA	Solid	8015B NM	52568
890-4609-4	FS07	Total/NA	Solid	8015B NM	52568
890-4609-5	FS08	Total/NA	Solid	8015B NM	52568
890-4609-6	FS09	Total/NA	Solid	8015B NM	52568
890-4609-7	FS10	Total/NA	Solid	8015B NM	52568
MB 880-52568/1-A	Method Blank	Total/NA	Solid	8015B NM	52568
LCS 880-52568/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	52568
LCSD 880-52568/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	52568
880-27935-A-21-B MS	Matrix Spike	Total/NA	Solid	8015B NM	52568
880-27935-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	52568

Analysis Batch: 52650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4609-1	SW25	Total/NA	Solid	8015 NM	
890-4609-2	SW26	Total/NA	Solid	8015 NM	
890-4609-3	SW27	Total/NA	Solid	8015 NM	
890-4609-4	FS07	Total/NA	Solid	8015 NM	
890-4609-5	FS08	Total/NA	Solid	8015 NM	
890-4609-6	FS09	Total/NA	Solid	8015 NM	
890-4609-7	FS10	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 52487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4609-1	SW25	Soluble	Solid	DI Leach	
890-4609-2	SW26	Soluble	Solid	DI Leach	
890-4609-3	SW27	Soluble	Solid	DI Leach	
890-4609-4	FS07	Soluble	Solid	DI Leach	
890-4609-5	FS08	Soluble	Solid	DI Leach	
890-4609-6	FS09	Soluble	Solid	DI Leach	
890-4609-7	FS10	Soluble	Solid	DI Leach	
MB 880-52487/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-52487/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-52487/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4609-1 MS	SW25	Soluble	Solid	DI Leach	
890-4609-1 MSD	SW25	Soluble	Solid	DI Leach	

Analysis Batch: 52634

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4609-1	SW25	Soluble	Solid	300.0	52487
890-4609-2	SW26	Soluble	Solid	300.0	52487
890-4609-3	SW27	Soluble	Solid	300.0	52487

QC Association Summary

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4609-1
SDG: 03C1558203

HPLC/IC (Continued)

Analysis Batch: 52634 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4609-4	FS07	Soluble	Solid	300.0	52487
890-4609-5	FS08	Soluble	Solid	300.0	52487
890-4609-6	FS09	Soluble	Solid	300.0	52487
890-4609-7	FS10	Soluble	Solid	300.0	52487
MB 880-52487/1-A	Method Blank	Soluble	Solid	300.0	52487
LCS 880-52487/2-A	Lab Control Sample	Soluble	Solid	300.0	52487
LCSD 880-52487/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	52487
890-4609-1 MS	SW25	Soluble	Solid	300.0	52487
890-4609-1 MSD	SW25	Soluble	Solid	300.0	52487

Lab Chronicle

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4609-1
SDG: 03C1558203

Client Sample ID: SW25
Date Collected: 05/02/23 10:55
Date Received: 05/02/23 15:14

Lab Sample ID: 890-4609-1
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			5.02 g	5 mL	52509	05/04/23 08:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52565	05/04/23 12:16	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52653	05/04/23 20:39	AJ	EET MID
Total/NA	Analysis	8015 NM		1			52650	05/04/23 20:38	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	52568	05/04/23 08:54	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52589	05/04/23 15:37	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	52487	05/04/23 10:44	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52634	05/04/23 15:31	SMC	EET MID

Client Sample ID: SW26
Date Collected: 05/02/23 11:00
Date Received: 05/02/23 15:14

Lab Sample ID: 890-4609-2
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			5.05 g	5 mL	52509	05/04/23 08:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52565	05/04/23 12:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52653	05/04/23 20:39	AJ	EET MID
Total/NA	Analysis	8015 NM		1			52650	05/04/23 20:38	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	52568	05/04/23 08:54	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52589	05/04/23 15:59	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	52487	05/04/23 10:44	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52634	05/04/23 15:45	SMC	EET MID

Client Sample ID: SW27
Date Collected: 05/02/23 13:55
Date Received: 05/02/23 15:14

Lab Sample ID: 890-4609-3
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			4.96 g	5 mL	52509	05/04/23 08:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52565	05/04/23 12:57	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52653	05/04/23 20:39	AJ	EET MID
Total/NA	Analysis	8015 NM		1			52650	05/04/23 20:38	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	52568	05/04/23 08:54	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52589	05/04/23 16:56	AJ	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	52487	05/04/23 10:44	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52634	05/04/23 15:50	SMC	EET MID

Client Sample ID: FS07
Date Collected: 05/02/23 10:00
Date Received: 05/02/23 15:14

Lab Sample ID: 890-4609-4
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	52509	05/04/23 08:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52565	05/04/23 13:17	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52653	05/04/23 20:39	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4609-1
SDG: 03C1558203

Client Sample ID: FS07

Date Collected: 05/02/23 10:00
Date Received: 05/02/23 15:14

Lab Sample ID: 890-4609-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			52650	05/04/23 20:38	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	52568	05/04/23 08:54	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52589	05/04/23 17:18	AJ	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	52487	05/04/23 10:44	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52634	05/04/23 15:55	SMC	EET MID

Client Sample ID: FS08

Date Collected: 05/02/23 10:05
Date Received: 05/02/23 15:14

Lab Sample ID: 890-4609-5

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			5.05 g	5 mL	52509	05/04/23 08:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52565	05/04/23 13:38	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52653	05/04/23 20:39	AJ	EET MID
Total/NA	Analysis	8015 NM		1			52650	05/04/23 20:38	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	52568	05/04/23 08:54	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52589	05/04/23 17:39	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	52487	05/04/23 10:44	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52634	05/04/23 16:00	SMC	EET MID

Client Sample ID: FS09

Date Collected: 05/02/23 10:10
Date Received: 05/02/23 15:14

Lab Sample ID: 890-4609-6

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	52509	05/04/23 08:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52565	05/04/23 13:58	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52653	05/04/23 20:39	AJ	EET MID
Total/NA	Analysis	8015 NM		1			52650	05/04/23 20:38	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	52568	05/04/23 08:54	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52589	05/04/23 18:00	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	52487	05/04/23 10:44	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52634	05/04/23 16:14	SMC	EET MID

Client Sample ID: FS10

Date Collected: 05/02/23 10:15
Date Received: 05/02/23 15:14

Lab Sample ID: 890-4609-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	52509	05/04/23 08:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52565	05/04/23 14:19	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52653	05/04/23 20:39	AJ	EET MID
Total/NA	Analysis	8015 NM		1			52650	05/04/23 20:38	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	52568	05/04/23 08:54	AM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52589	05/04/23 18:22	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4609-1
SDG: 03C1558203

Client Sample ID: FS10

Date Collected: 05/02/23 10:15
Date Received: 05/02/23 15:14

Lab Sample ID: 890-4609-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.98 g	50 mL	52487	05/04/23 10:44	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52634	05/04/23 16:19	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: BEU 169

Job ID: 890-4609-1
SDG: 03C1558203

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: BEU 169

Job ID: 890-4609-1
SDG: 03C1558203

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: BEU 169

Job ID: 890-4609-1
SDG: 03C1558203

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4609-1	SW25	Solid	05/02/23 10:55	05/02/23 15:14	0-4'
890-4609-2	SW26	Solid	05/02/23 11:00	05/02/23 15:14	0-5'
890-4609-3	SW27	Solid	05/02/23 13:55	05/02/23 15:14	0-5'
890-4609-4	FS07	Solid	05/02/23 10:00	05/02/23 15:14	4'
890-4609-5	FS08	Solid	05/02/23 10:05	05/02/23 15:14	4'
890-4609-6	FS09	Solid	05/02/23 10:10	05/02/23 15:14	5'
890-4609-7	FS10	Solid	05/02/23 10:15	05/02/23 15:14	5'

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Tacoma Morrissey	Bill to: (if different)	Garrett Green
Company Name:	Ensolum, LLC	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Greene St
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	(970)319-4364 Email:	Email:	Garrett.Green@ExxonMobile.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:	BEU 169	Turn Around	
Project Number:	03C 155 8203	☐ Routine ☒ Rush	
Project Location:	32.485733 -104.11338	Due Date:	24 hrs
Sampler's Name:	Mariaha O'Dell	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:	IAH-007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	5.4	
Total Containers:		Corrected Temperature:	5.2	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	BTEX	TPH	Chlorides
SW25	S	5/2/23	10:55	0-4'	C	1				
SW26			11:00	0-5'						
SW27			13:55	0-5'						
FS07			10:00	4'						
FS08			10:05	4'						
FS09			10:10	5'						
FS10	↓	↓	10:15	5'	↓	↓		↓	↓	↓

Parameters

ANALYSIS REQUEST

890-4609 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 #:
NAB 1530834217

API:
30-015-35169

Tacoma Morrissey
tmorrissey@ensolum.com

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	M. O'Dell	Amanda Stuff	5/2/23 1514			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4609-1
SDG Number: 03C1558203

Login Number: 4609
List Number: 1
Creator: Stutzman, Amanda

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: 890-4609-1
SDG Number: 03C1558203

Login Number: 4609
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 05/04/23 10:52 AM

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

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 5/10/2023 7:48:15 PM

JOB DESCRIPTION

BEU 169
SDG NUMBER 03C1558203

JOB NUMBER

890-4629-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

my EOL

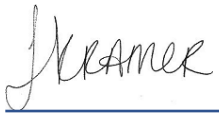
Eurofins Carlsbad

Job Notes

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

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

Authorization



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

Client: Ensolum
Project/Site: BEU 169

Laboratory Job ID: 890-4629-1
SDG: 03C1558203

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4629-1
SDG: 03C1558203

Qualifiers

GC VOA

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

GC Semi 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.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4629-1
SDG: 03C1558203

Job ID: 890-4629-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4629-1

Receipt
The samples were received on 5/8/2023 11:20 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 3.2°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SW28 (890-4629-1), SW29 (890-4629-2) and FS11 (890-4629-3).

GC VOA
Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-52913 and analytical batch 880-52910 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 surrogate recovery for the blank associated with preparation batch 880-53015 and analytical batch 880-52997 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: SW29 (890-4629-2). 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.

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-52839 and 880-52839 and analytical batch 880-52944 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.The associated samples are: SW28 (890-4629-1), SW29 (890-4629-2), FS11 (890-4629-3), (880-28114-A-1-H), (880-28114-A-1-I MS) and (880-28114-A-1-J MSD).

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: BEU 169

Job ID: 890-4629-1
SDG: 03C1558203

Client Sample ID: SW28

Date Collected: 05/08/23 09:30
Date Received: 05/08/23 11:20
Sample Depth: 0.5'

Lab Sample ID: 890-4629-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/09/23 08:33	05/09/23 12:34	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/09/23 08:33	05/09/23 12:34	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/09/23 08:33	05/09/23 12:34	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		05/09/23 08:33	05/09/23 12:34	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/09/23 08:33	05/09/23 12:34	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/09/23 08:33	05/09/23 12:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*05/09/23 08:33*	*05/09/23 12:34*	*1*
1,4-Difluorobenzene (Surr)	*124*		*70 - 130*	*05/09/23 08:33*	*05/09/23 12:34*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			05/09/23 13:36	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			05/10/23 19:11	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		05/10/23 10:09	05/10/23 11:35	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/10/23 10:09	05/10/23 11:35	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/10/23 10:09	05/10/23 11:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*05/10/23 10:09*	*05/10/23 11:35*	*1*
o-Terphenyl	*87*		*70 - 130*	*05/10/23 10:09*	*05/10/23 11:35*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**307**		5.02		mg/Kg			05/09/23 12:55	1

Client Sample ID: SW29

Date Collected: 05/08/23 09:50
Date Received: 05/08/23 11:20
Sample Depth: 0.5'

Lab Sample ID: 890-4629-2
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		05/09/23 08:33	05/09/23 12:55	1
Toluene	**0.00204**		0.00200		mg/Kg		05/09/23 08:33	05/09/23 12:55	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/09/23 08:33	05/09/23 12:55	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/09/23 08:33	05/09/23 12:55	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/09/23 08:33	05/09/23 12:55	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/09/23 08:33	05/09/23 12:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*05/09/23 08:33*	*05/09/23 12:55*	*1*

Client Sample Results

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4629-1
SDG: 03C1558203

Client Sample ID: SW29

Lab Sample ID: 890-4629-2
Matrix: Solid
Date Collected: 05/08/23 09:50
Date Received: 05/08/23 11:20
Sample Depth: 0.5'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*125*		*70 - 130*	*05/09/23 08:33*	*05/09/23 12:55*	*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			05/09/23 13:36	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			05/10/23 19:11	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		05/10/23 10:09	05/10/23 12:40	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		05/10/23 10:09	05/10/23 12:40	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		05/10/23 10:09	05/10/23 12:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*93*		*70 - 130*	*05/10/23 10:09*	*05/10/23 12:40*	*1*
o-Terphenyl	*69*	*S1-*	*70 - 130*	*05/10/23 10:09*	*05/10/23 12:40*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**126**		5.03	mg/Kg			05/09/23 13:00	1

Client Sample ID: FS11

Lab Sample ID: 890-4629-3
Matrix: Solid
Date Collected: 05/08/23 09:40
Date Received: 05/08/23 11:20
Sample Depth: 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		05/09/23 08:33	05/09/23 13:16	1
Toluene	<0.00201	U	0.00201	mg/Kg		05/09/23 08:33	05/09/23 13:16	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		05/09/23 08:33	05/09/23 13:16	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		05/09/23 08:33	05/09/23 13:16	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		05/09/23 08:33	05/09/23 13:16	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		05/09/23 08:33	05/09/23 13:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*05/09/23 08:33*	*05/09/23 13:16*	*1*
1,4-Difluorobenzene (Surr)	*124*		*70 - 130*	*05/09/23 08:33*	*05/09/23 13:16*	*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			05/09/23 15:36	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			05/10/23 19:11	1

Client Sample Results

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4629-1
SDG: 03C1558203

Client Sample ID: FS11

Date Collected: 05/08/23 09:40
Date Received: 05/08/23 11:20
Sample Depth: 5'

Lab Sample ID: 890-4629-3

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	<50.0	U	50.0		mg/Kg		05/10/23 10:09	05/10/23 13:02	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/10/23 10:09	05/10/23 13:02	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/10/23 10:09	05/10/23 13:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*121*		*70 - 130*	*05/10/23 10:09*	*05/10/23 13:02*	*1*
o-Terphenyl	*93*		*70 - 130*	*05/10/23 10:09*	*05/10/23 13:02*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**246**		4.98		mg/Kg			05/09/23 13:05	1

Surrogate Summary

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4629-1
SDG: 03C1558203

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-28114-A-1-A MS	Matrix Spike	107	103
880-28114-A-1-B MSD	Matrix Spike Duplicate	97	100
890-4629-1	SW28	111	124
890-4629-2	SW29	108	125
890-4629-3	FS11	104	124
LCS 880-52913/1-A	Lab Control Sample	99	101
LCSD 880-52913/2-A	Lab Control Sample Dup	96	105
MB 880-52913/5-A	Method Blank	99	104

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-4629-1	SW28	113	87
890-4629-1 MS	SW28	107	77
890-4629-1 MSD	SW28	101	74
890-4629-2	SW29	93	69 S1-
890-4629-3	FS11	121	93
LCS 880-53015/2-A	Lab Control Sample	106	82
LCSD 880-53015/3-A	Lab Control Sample Dup	119	91
MB 880-53015/1-A	Method Blank	137 S1+	110

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4629-1
SDG: 03C1558203

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-52913/5-A
Matrix: Solid
Analysis Batch: 52910

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 52913

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/09/23 08:33	05/09/23 11:05	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/09/23 08:33	05/09/23 11:05	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/09/23 08:33	05/09/23 11:05	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/09/23 08:33	05/09/23 11:05	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/09/23 08:33	05/09/23 11:05	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/09/23 08:33	05/09/23 11:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*05/09/23 08:33*	*05/09/23 11:05*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*05/09/23 08:33*	*05/09/23 11:05*	*1*

Lab Sample ID: LCS 880-52913/1-A
Matrix: Solid
Analysis Batch: 52910

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 52913

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1199		mg/Kg		120	70 - 130		
Toluene			0.100	0.1026		mg/Kg		103	70 - 130		
Ethylbenzene			0.100	0.1063		mg/Kg		106	70 - 130		
m-Xylene & p-Xylene			0.200	0.2149		mg/Kg		107	70 - 130		
o-Xylene			0.100	0.1056		mg/Kg		106	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-52913/2-A
Matrix: Solid
Analysis Batch: 52910

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 52913

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1234		mg/Kg		123	70 - 130	3	35
Toluene			0.100	0.1022		mg/Kg		102	70 - 130	0	35
Ethylbenzene			0.100	0.1033		mg/Kg		103	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.2078		mg/Kg		104	70 - 130	3	35
o-Xylene			0.100	0.1018		mg/Kg		102	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*
1,4-Difluorobenzene (Surr)	*105*		*70 - 130*

Lab Sample ID: 880-28114-A-1-A MS
Matrix: Solid
Analysis Batch: 52910

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 52913

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U	0.0998	0.09751		mg/Kg		97	70 - 130		
Toluene	0.00475		0.0998	0.07897		mg/Kg		74	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4629-1
SDG: 03C1558203

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

Lab Sample ID: 880-28114-A-1-A MS
Matrix: Solid
Analysis Batch: 52910

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 52913

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U F1	0.0998	0.06930	F1	mg/Kg		68	70 - 130
m-Xylene & p-Xylene	0.0387	F1	0.200	0.1487	F1	mg/Kg		55	70 - 130
o-Xylene	0.0173	F1	0.0998	0.07054	F1	mg/Kg		53	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 880-28114-A-1-B MSD
Matrix: Solid
Analysis Batch: 52910

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 52913

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.09765		mg/Kg		97	70 - 130	0	35
Toluene	0.00475		0.100	0.07873		mg/Kg		74	70 - 130	0	35
Ethylbenzene	<0.00199	U F1	0.100	0.06986	F1	mg/Kg		68	70 - 130	1	35
m-Xylene & p-Xylene	0.0387	F1	0.201	0.1447	F1	mg/Kg		53	70 - 130	3	35
o-Xylene	0.0173	F1	0.100	0.06920	F1	mg/Kg		52	70 - 130	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

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

Lab Sample ID: MB 880-53015/1-A
Matrix: Solid
Analysis Batch: 52997

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 53015

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		05/10/23 08:09	05/10/23 09:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/10/23 08:09	05/10/23 09:04	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/10/23 08:09	05/10/23 09:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*137*	*S1+*	*70 - 130*	*05/10/23 08:09*	*05/10/23 09:04*	*1*
o-Terphenyl	*110*		*70 - 130*	*05/10/23 08:09*	*05/10/23 09:04*	*1*

Lab Sample ID: LCS 880-53015/2-A
Matrix: Solid
Analysis Batch: 52997

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 53015

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	982.4		mg/Kg		98	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1028		mg/Kg		103	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4629-1
SDG: 03C1558203

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

Lab Sample ID: LCS 880-53015/2-A
Matrix: Solid
Analysis Batch: 52997

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 53015

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	82		70 - 130

Lab Sample ID: LCSD 880-53015/3-A
Matrix: Solid
Analysis Batch: 52997

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 53015

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1012		mg/Kg		101	70 - 130	3	20
Diesel Range Organics (Over C10-C28)			1000	1085		mg/Kg		109	70 - 130	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	119		70 - 130
o-Terphenyl	91		70 - 130

Lab Sample ID: 890-4629-1 MS
Matrix: Solid
Analysis Batch: 52997

Client Sample ID: SW28
Prep Type: Total/NA
Prep Batch: 53015

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	996	870.1		mg/Kg		87	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	996	780.5		mg/Kg		76	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	77		70 - 130

Lab Sample ID: 890-4629-1 MSD
Matrix: Solid
Analysis Batch: 52997

Client Sample ID: SW28
Prep Type: Total/NA
Prep Batch: 53015

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	996	830.0		mg/Kg		83	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	<49.9	U	996	745.3		mg/Kg		72	70 - 130	5	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	74		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4629-1
SDG: 03C1558203

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-52839/1-A
Matrix: Solid
Analysis Batch: 52944

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			05/09/23 12:21	1

Lab Sample ID: LCS 880-52839/2-A
Matrix: Solid
Analysis Batch: 52944

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	253.5		mg/Kg		101	90 - 110		

Lab Sample ID: LCSD 880-52839/3-A
Matrix: Solid
Analysis Batch: 52944

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	259.4		mg/Kg		104	90 - 110	2	20

Lab Sample ID: 880-28114-A-1-I MS
Matrix: Solid
Analysis Batch: 52944

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	525	F1	248	698.1	F1	mg/Kg		70	90 - 110		

Lab Sample ID: 880-28114-A-1-J MSD
Matrix: Solid
Analysis Batch: 52944

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	525	F1	248	700.1	F1	mg/Kg		70	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4629-1
SDG: 03C1558203

GC VOA

Analysis Batch: 52910

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4629-1	SW28	Total/NA	Solid	8021B	52913
890-4629-2	SW29	Total/NA	Solid	8021B	52913
890-4629-3	FS11	Total/NA	Solid	8021B	52913
MB 880-52913/5-A	Method Blank	Total/NA	Solid	8021B	52913
LCS 880-52913/1-A	Lab Control Sample	Total/NA	Solid	8021B	52913
LCSD 880-52913/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	52913
880-28114-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	52913
880-28114-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	52913

Prep Batch: 52913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4629-1	SW28	Total/NA	Solid	5035	
890-4629-2	SW29	Total/NA	Solid	5035	
890-4629-3	FS11	Total/NA	Solid	5035	
MB 880-52913/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-52913/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-52913/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-28114-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-28114-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 52954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4629-1	SW28	Total/NA	Solid	Total BTEX	
890-4629-2	SW29	Total/NA	Solid	Total BTEX	
890-4629-3	FS11	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 52997

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4629-1	SW28	Total/NA	Solid	8015B NM	53015
890-4629-2	SW29	Total/NA	Solid	8015B NM	53015
890-4629-3	FS11	Total/NA	Solid	8015B NM	53015
MB 880-53015/1-A	Method Blank	Total/NA	Solid	8015B NM	53015
LCS 880-53015/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	53015
LCSD 880-53015/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	53015
890-4629-1 MS	SW28	Total/NA	Solid	8015B NM	53015
890-4629-1 MSD	SW28	Total/NA	Solid	8015B NM	53015

Prep Batch: 53015

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4629-1	SW28	Total/NA	Solid	8015NM Prep	
890-4629-2	SW29	Total/NA	Solid	8015NM Prep	
890-4629-3	FS11	Total/NA	Solid	8015NM Prep	
MB 880-53015/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-53015/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-53015/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4629-1 MS	SW28	Total/NA	Solid	8015NM Prep	
890-4629-1 MSD	SW28	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4629-1
SDG: 03C1558203

GC Semi VOA

Analysis Batch: 53069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4629-1	SW28	Total/NA	Solid	8015 NM	
890-4629-2	SW29	Total/NA	Solid	8015 NM	
890-4629-3	FS11	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 52839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4629-1	SW28	Soluble	Solid	DI Leach	
890-4629-2	SW29	Soluble	Solid	DI Leach	
890-4629-3	FS11	Soluble	Solid	DI Leach	
MB 880-52839/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-52839/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-52839/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-28114-A-1-I MS	Matrix Spike	Soluble	Solid	DI Leach	
880-28114-A-1-J MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 52944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4629-1	SW28	Soluble	Solid	300.0	52839
890-4629-2	SW29	Soluble	Solid	300.0	52839
890-4629-3	FS11	Soluble	Solid	300.0	52839
MB 880-52839/1-A	Method Blank	Soluble	Solid	300.0	52839
LCS 880-52839/2-A	Lab Control Sample	Soluble	Solid	300.0	52839
LCSD 880-52839/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	52839
880-28114-A-1-I MS	Matrix Spike	Soluble	Solid	300.0	52839
880-28114-A-1-J MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	52839

Lab Chronicle

Client: Ensolum
Project/Site: BEU 169

Job ID: 890-4629-1
SDG: 03C1558203

Client Sample ID: SW28

Date Collected: 05/08/23 09:30
Date Received: 05/08/23 11:20

Lab Sample ID: 890-4629-1

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			5.05 g	5 mL	52913	05/09/23 08:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52910	05/09/23 12:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52954	05/09/23 13:36	SM	EET MID
Total/NA	Analysis	8015 NM		1			53069	05/10/23 19:11	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	53015	05/10/23 10:09	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52997	05/10/23 11:35	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	52839	05/09/23 11:30	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52944	05/09/23 12:55	SMC	EET MID

Client Sample ID: SW29

Date Collected: 05/08/23 09:50
Date Received: 05/08/23 11:20

Lab Sample ID: 890-4629-2

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	52913	05/09/23 08:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52910	05/09/23 12:55	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52954	05/09/23 13:36	SM	EET MID
Total/NA	Analysis	8015 NM		1			53069	05/10/23 19:11	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	53015	05/10/23 10:09	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52997	05/10/23 12:40	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	52839	05/09/23 11:30	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52944	05/09/23 13:00	SMC	EET MID

Client Sample ID: FS11

Date Collected: 05/08/23 09:40
Date Received: 05/08/23 11:20

Lab Sample ID: 890-4629-3

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			4.97 g	5 mL	52913	05/09/23 08:33	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	52910	05/09/23 13:16	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			52954	05/09/23 15:36	SM	EET MID
Total/NA	Analysis	8015 NM		1			53069	05/10/23 19:11	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	53015	05/10/23 10:09	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	52997	05/10/23 13:02	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	52839	05/09/23 11:30	KS	EET MID
Soluble	Analysis	300.0		1	50 mL	50 mL	52944	05/09/23 13:05	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: BEU 169

Job ID: 890-4629-1
SDG: 03C1558203

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: BEU 169

Job ID: 890-4629-1
SDG: 03C1558203

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: BEU 169

Job ID: 890-4629-1
SDG: 03C1558203

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4629-1	SW28	Solid	05/08/23 09:30	05/08/23 11:20	0.5'
890-4629-2	SW29	Solid	05/08/23 09:50	05/08/23 11:20	0.5'
890-4629-3	FS11	Solid	05/08/23 09:40	05/08/23 11:20	5'

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Tacoma Morrissey	Bill to: (if different)	Garrett Green
Company Name:	Ensolum, LLC	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E Greene St
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	9703194364	Email:	Garrett.Green@ExxonMobile.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:	BEU 109	Turn Around	
Project Number:	03C1558203	☐ Routine ☒ Rush	
Project Location:	32.485733, -104.111387	Due Date:	24 hrs
Sampler's Name:	Mariana O'Dell	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:	TAM-007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	3.4
Total Containers:		Corrected Temperature:	3.2

Preservative Codes

None: NO; DI Water: H_2O; Cool: Cool; MeOH: Me; HCL: HC; HNO_3: HN; H_2SO_4: H_2; NaOH: Na; H_3PO_4: HP; $NaHSO_4$: NABIS; $Na_2S_2O_3$: NaSO$_3$; Zn Acetate+NaOH: Zn; NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Chlorides	TPH	BTEX	Sample Comments
SW28	S	5/8/23	9:30	0-5'	C	1		↓	↓	↓	Incident #:
SW29	↓	↓	9:50	0-5'	↓	↓		↓	↓	↓	NAB1530834217
FS11	↓	↓	9:40	5'	↓	↓		↓	↓	↓	
											API: 30-015-35169
											tmorrissey@ensolum.com
											modell@ensolum.com

890-4629 Chain of Custody

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Mariana O'Dell	Mariana O. Bleef	5/8/23 1120			
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: 890-1271 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 #: 890-4629-1
Address: 1211 W Florida Ave	Due Date Requested: 5/9/2023			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: BEU 169	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:										
SW28 (890-4629-1)	5/8/23	09 30 Mountain		Solid			X	X	X	X	X	1	
Sw29 (890-4629-2)	5/8/23	09 50 Mountain		Solid			X	X	X	X	X	1	
FS11 (890-4629-3)	5/8/23	09 40 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: ∆ Yes ∆ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4629-1
SDG Number: 03C1558203

Login Number: 4629
List Number: 1
Creator: Stutzman, Amanda

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: 890-4629-1
SDG Number: 03C1558203

Login Number: 4629
List Number: 2
Creator: Teel, Brianna

List Source: Eurofins Midland
List Creation: 05/09/23 11:28 AM

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 C

NMOCD Notifications

Tacoma Morrissey

From: Green, Garrett J <garrett.green@exxonmobil.com>
Sent: Thursday, April 27, 2023 4:33 PM
To: Enviro, OCD, EMNRD; Bratcher, Michael, EMNRD; Hamlet, Robert, EMNRD; Harimon, Jocelyn, EMNRD
Cc: Tacoma Morrissey; DelawareSpills /SM
Subject: XTO - Sampling Notification (Week of 5/1/23 - 5/5/23)

[**EXTERNAL EMAIL**]

All,

XTO plans to complete final sampling activities at the sites listed below for the week of May 1, 2023.

Tuesday
- Remuda N 31 124H / nAPP2233950022

Wednesday
- Remuda N 31 124H / nAPP2233950022
- PLU PC 17 BATTERY/ nAPP2233951574

Thursday
- PLU PC 17 BATTERY/ nAPP2233951574
- BEU 169 / NAB1530834217

Friday
- PLU PC 17 BATTERY/ nAPP2233951574
- BEU 169 / NAB1530834217

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

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 225411

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 225411
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAB1530834217 BIG EDDY UNIT #169, thank you. This closure is approved.	11/3/2023