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	NAPP2205439646
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Adrian Baker	Contact Telephone 432-236-3808
Contact email adrian.baker@exxonmobil.com	Incident # *(assigned by OCD)*
Contact mailing address 6401 Holiday Hill Rd Bldg 5, Midland, Texas, 79707	

Location of Release Source

Latitude 32.21242 Longitude -103.91388

(NAD 83 in decimal degrees to 5 decimal places)

Site Name PLU 213	Site Type Tank Battery
Date Release Discovered 02/12/2022	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
P	18	24S	30E	Eddy

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

Nature and Volume of Release

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

☒ Crude Oil	Volume Released (bbls) 2.11	Volume Recovered (bbls) 0.00
☒ Produced Water	Volume Released (bbls) 14.14	Volume Recovered (bbls) 00.00
	Is the concentration of total dissolved solids (TDS) 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 The dump controller on the two phase inlet separator failed, causing the separator to release fluids. A third-party contractor has been retained for remediation purposes.

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2205439646
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release? 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

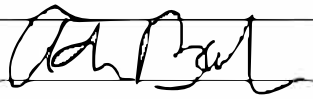
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

- ☒ 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:
NA

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

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

Printed Name: Adrian Baker
Title: SSHE Coordinator
Signature: 
Date: 2/23/22
email: adrian.baker@exxonmobil.com
Telephone: 432-236-3808

OCD Only

Received by: Ramona Marcus
Date: 2/23/2022

NAPP2205439646

Location:	**PLU 213 Battery**	
Spill Date:	**2/12/2022**	
Area 1		
Approximate Area =	1094.00	sq. ft.
Average Saturation (or depth) of spill =	4.00	inches
Average Porosity Factor =	0.25	
VOLUME OF LEAK		
Total Crude Oil =	2.11	bbls
Total Produced Water =	14.14	bbls
TOTAL VOLUME OF LEAK		
Total Crude Oil =	**2.11**	**bbls**
Total Produced Water =	**14.14**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**0.00**	**bbls**
Total Produced Water =	**0.00**	**bbls**

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

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 83624
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rmarcus	None	2/23/2022

Incident ID	NAPP2205439646
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2205439646
District RP	
Facility ID	
Application ID	

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

Printed Name: __Garrett Green _____ Title: ___Environmental Coordinator_____

Signature:_____ Date: ___11/23/2022_____

email: _Garrett.Green@ExxonMobil.com_____ Telephone: ___575-200-0729_____

OCD Only

Received by: _____Jocelyn Harimon_____ Date: _____11/23/2022_____

Incident ID	NAPP2205439646
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: _Garrett Green_____ Title: _Environmental Coordinator_____

Signature: _____ Date: __11/23/2022_____

email: __garrett.green@exxonmobil.com_____ Telephone: ___575-200-0729_____

OCD Only

Received by: Jocelyn Harimon Date: 11/23/2022

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

Closure Approved by: Jennifer Nobui Date: 01/04/2023

Printed Name: Jennifer Nobui Title: Environmental Specialist A

ENSOLUM

November 23, 2022

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

Re: Closure Request
PLU 213 Tank Battery
Incident Number NAPP2205439646
Eddy County, New Mexico

To Whom it May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared this *Closure Request* to document the site assessment, excavation, and soil sampling activities completed at the PLU 213 Tank Battery (Site). The purpose of the remediation activities was to address impacted soil resulting from a release of crude oil and produced water in an area surrounded by active production equipment. Based on additional remedial activites completed as outlined in an approved *Remediation Work Plan (Work Plan)*, dated July 12, 2022, XTO is submitting this *Closure Request*, describing site assessment and excavation activities that have occurred and requesting closure for Incident Number NAPP2205439646.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit P, Section 18, Township 24 South, Range 30 East, in Eddy County, New Mexico (32.21242°N, 103.91388°W) and is associated with oil and gas exploration and production operations on federal land managed by the Bureau of Land Management (BLM). Figure 1 depicts the site location on a topographic map.

On February 12, 2022, the dump controller on the two-phase inlet separator failed, resulting in the release of approximately 14.14 barrels (bbls) of produced water and 2.11 bbls of crude oil. Released fluids were not recovered. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on February 23, 2022. The release was assigned Incident Number NAPP2205439646.

On April 26, 2022 and April 28, 2022, Ensolum personnel completed a Site visit to evaluate the release extent based on information provided on the Form C-141 and visual observations. Eight assessment soil samples (SS01 through SS08) were collected within and around the release extent from a depth of 0.5 feet bgs. Assessment samples SS01 through SS04 were collected within the release extent in an area containing active production equipment. Assessment samples SS05 through SS08 were collected around the release extent to confirm the lateral exent of the release. The soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and for chloride utilizing Hach® chloride QuanTab® test strips. Laboratory analytical results for assessment soil samples SS01 and SS04, collected within the release extent, indicated benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria. Laboratory analytical results for preliminary soil samples SS02 and SS03, collected within the release extent, indicated TPH-GRO/TPH-DRO and/or TPH concentrations exceeded the Site Closure Criteria.

As a result, XTO submitted the *Work Plan* and proposed the following remediation activities:

- Complete a depth to water boring within 0.5 miles of the release; and
- Excavate impacted soil near the areas of SS02 and SS03.

The *Work Plan* was approved by NMOCD on August 29, 2022, via email with no conditions. What follows is a description of the work completed in compliance with the approved *Work Plan*.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

As documented in the *Work Plan*, the following NMOCD Table I Closure Criteria (Closure Criteria) apply:

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

EXCAVATION ACTIVITIES AND LABORATORY ANALYTICAL RESULTS

On April 26, 2022 and June 24, 2022 Ensolum personnel were at the Site to complete excavation activities as detailed in the approved *Work Plan.* Excavation activities were performed via hand-shoveling, hydro-vacuum, and transport vehicles due to the presence of active production equipment. The excavation was completed to a maximum depth of 0.75 feet bgs and following removal of the impacted soil, 5-point composite soil samples were collected every 200 square feet from the floor of the excavation. Composite soil samples FS01 and FS02 were collected from the floor of the excavation at a depth of 0.75 feet bgs. Due to the shallow depth of the excavation, sidewalls were incorporated into the floor samples. The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following chemicals of concern (COCs): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-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.

A total of approximately 15 cubic yards of impacted soil was removed during the excavation activities. Upon completion of excavation activities, the excavation areas were backfilled and recontoured to pre-existing Site conditions. The impacted soil was transported and properly disposed of at the R360 Facility in Hobbs, New Mexico. The final excavation extent and excavation soil sample locations are presented on Figure 2. A photographic log is included in Appendix A.

Laboratory analytical results for excavation soil samples FS01 and FS02 indicated all COC concentrations are compliant with the Site Closure Criteria (Table 1). The complete laboratory analytical reports are included in Appendix B.

DEPTH TO WATER DETERMINATION

During Novermber 2022, a borehole (BH01) was advanced to a depth of 120 feet bgs via air rotary drill rig to confirm depth to water. The borehole was located approximately 0.2 miles south of the Site and is depicted on Figure 1. A field geologist logged and described soils continuously. The borehole lithologic/soil sampling log is included in Appendix C. The borehole was left open for over 72 hours to allow for potential slow infill of groundwater. After the 72-hour waiting period without observing groundwater, it was confirmed that groundwater beneath the Site is greater than 120 feet bgs. The borehole was properly abandoned using hydrated bentonite chips.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the February 2022 release of produced water and crude oil. Laboratory analytical results for the excavation soil samples indicated all COC concentrations were compliant with the Site Closure Criteria and actions approved in the *Work Plan*. Based on the soil sample analytical results, no further remediation was required. XTO installed a depth to water boring within ½ mile of the release to confirm the Site Closure Criteria. XTO backfilled the excavation with material purchased locally and recontoured the Site to match pre-existing site conditions.

XTO believes these remedial actions are protective of human health, the environment, and groundwater and respectfully requests closure for Incident Number NAPP2205439646. XTO has completed the actions approved in the *Work Plan* and is submitting this C*losure Request* as a condition of approval.

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

Sincerely,
Ensolum, LLC

Kalei Jennings
Senior Project Manager

Ashley L. Ager, MS, PG
Principal

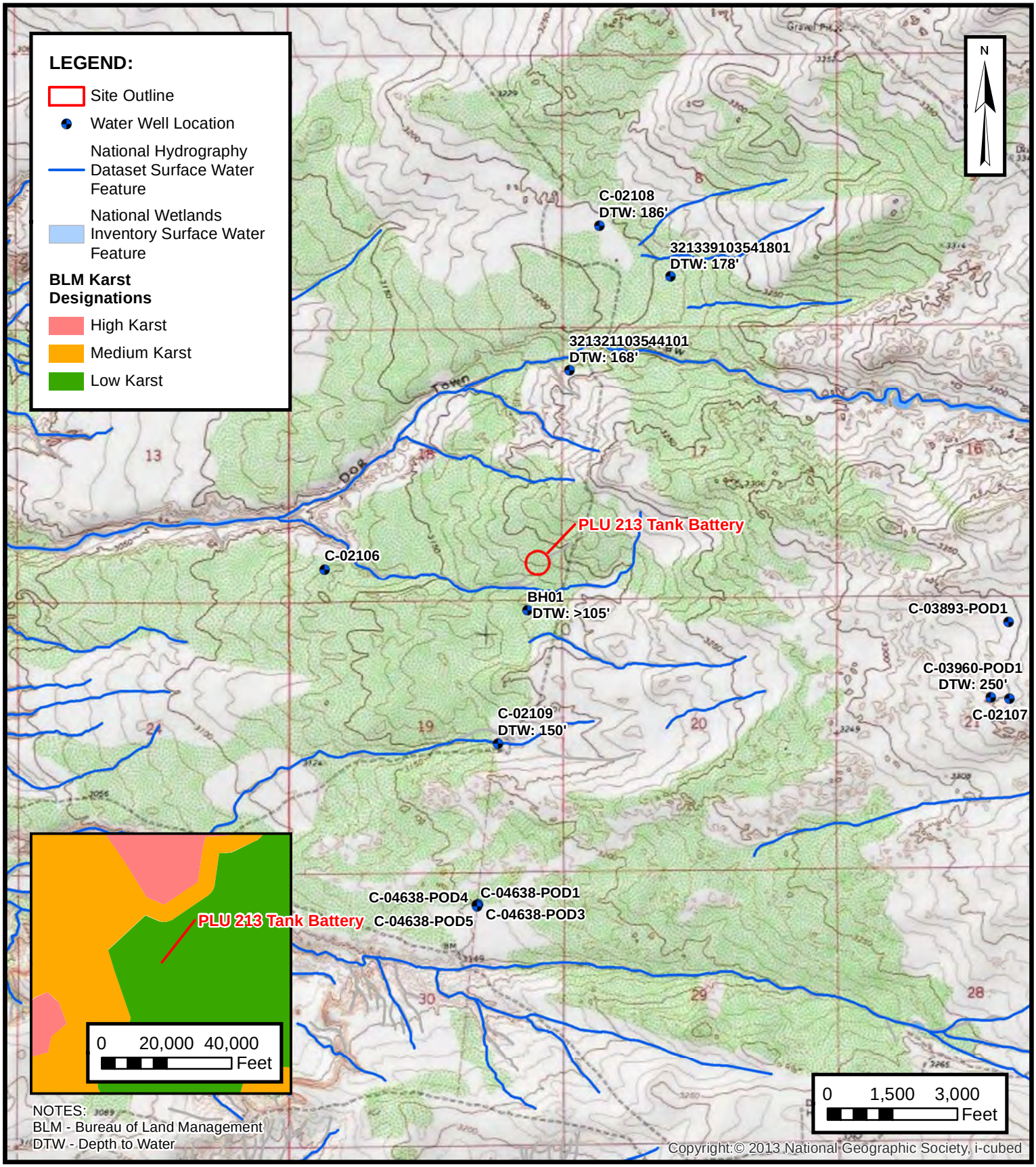
cc: Garrett Green, XTO
Shelby Pennington, XTO
Bureau of Land Management

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 and Chain of Custody Documentation
Appendix C	Lithologic / Soil Sampling Log
Appendix D	NMOCD Notifications

ENSOLUM

FIGURES



ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

SITE RECEPTOR MAP

XTO ENERGY, INC
PLU 213 TANK BATTERY
NAPP2205439646
Unit P, Sec 18, T24S, R30E
Eddy County, New Mexico

FIGURE

1

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

EXCAVATION SAMPLE LOCATIONS

XTO ENERGY, INC
PLU 213 TANK BATTERY
Incident Number: NAPP2205439646
Unit P, Sec 18, T24S, R30E
Eddy County, New Mexico

FIGURE

2

ENSOLUM

TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
PLU 213 Tank Battey
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**	**1,000**	**2,500**	**20,000**
Confirmation Soil Samples										
FS01	04/26/2022	0.5	<0.00199	<0.00398	209	<50.0	<50.0	209	209	16,900
FS02	06/24/2022	0.75	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	2,730

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in bold exceed the NMOCD Table 1 Closure Criteria or reclamation standard where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

Grey text indicates soil sample removed during excavation activities

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APPENDIX A

Photographic Log

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Photographic Log
XTO Energy, Inc.
PLU 213 Tank Battery
Incident #: NAPP2205439646

Photograph: 1 Date: 2/12/2022
Description: Initial release area
View: Northeast

Photograph: 2 Date: 2/12/2022
Description: Initial release area
View: North

Photograph: 3 Date: 4/13/2022
Description: Initial release area
View: Northwest

Photograph: 4 Date: 4/13/2022
Description: Initial release area
View: East

ENSOLUM

Photographic Log
XTO Energy, Inc.
PLU 213 Tank Battery
Incident #: NAPP2205439646

Photograph: 5 Date: 5/4/2022
Description: Release area post remediation
View: East

Photograph: 6 Date: 5/4/2022
Description: Release area post remediation
View: West

Photograph: 7 Date: 5/4/2022
Description: Release area post remediation
View: South

Photograph: 8 Date: 5/4/2022
Description: Release area post remediation
View: Northeast

ENSOLUM

APPENDIX B

Laboratory Analytical Reports and Chain of Custody Documentation

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2250-1
Laboratory Sample Delivery Group: 03E1558014
Client Project/Site: PLU 213

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
5/9/2022 2:48:23 PM

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

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

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

Client: Ensolum
Project/Site: PLU 213

Laboratory Job ID: 890-2250-1
SDG: 03E1558014

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QC Sample Results 17
QC Association Summary 23
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Sample Summary 33
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Definitions/Glossary

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
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: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

Job ID: 890-2250-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2250-1

Comments
No additional comments.

Receipt
The samples were received on 4/27/2022 8:21 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 was 0.8º C.

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

GC Semi VOA
Method 8015B NM: The wrong vials were typed into the physical sequence for CCV injection. The primary and final verifications were acceptable and based on that and all other LCS/LCSD reporting acceptable the data was qualified and reported.

(CCV 880-24609/28) and (CCV 880-24609/39)

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

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

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

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

Client Sample Results

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

Client Sample ID: SS01

Lab Sample ID: 890-2250-1
Matrix: Solid
Date Collected: 04/26/22 10:25
Date Received: 04/27/22 08:21
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/07/22 13:13	05/08/22 19:24	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/07/22 13:13	05/08/22 19:24	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/07/22 13:13	05/08/22 19:24	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		05/07/22 13:13	05/08/22 19:24	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/07/22 13:13	05/08/22 19:24	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/07/22 13:13	05/08/22 19:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*198*	*S1+*	*70 - 130*	*05/07/22 13:13*	*05/08/22 19:24*	*1*
1,4-Difluorobenzene (Surr)	*79*		*70 - 130*	*05/07/22 13:13*	*05/08/22 19:24*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**366**		49.9		mg/Kg			05/03/22 16:49	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/28/22 13:59	05/02/22 17:36	1
Diesel Range Organics (Over C10-C28)	**366**		49.9		mg/Kg		04/28/22 13:59	05/02/22 17:36	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/28/22 13:59	05/02/22 17:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*118*		*70 - 130*	*04/28/22 13:59*	*05/02/22 17:36*	*1*
o-Terphenyl	*123*		*70 - 130*	*04/28/22 13:59*	*05/02/22 17:36*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9450**		99.6		mg/Kg			05/01/22 20:30	20

Client Sample ID: SS01A

Lab Sample ID: 890-2250-2
Matrix: Solid
Date Collected: 04/26/22 13:30
Date Received: 04/27/22 08:21
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U F1 F2	0.00199		mg/Kg		05/07/22 13:16	05/09/22 07:16	1
Toluene	<0.00199	U F1 F2	0.00199		mg/Kg		05/07/22 13:16	05/09/22 07:16	1
Ethylbenzene	<0.00199	U F1 F2	0.00199		mg/Kg		05/07/22 13:16	05/09/22 07:16	1
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.00398		mg/Kg		05/07/22 13:16	05/09/22 07:16	1
o-Xylene	<0.00199	U F1 F2	0.00199		mg/Kg		05/07/22 13:16	05/09/22 07:16	1
Xylenes, Total	<0.00398	U F1 F2	0.00398		mg/Kg		05/07/22 13:16	05/09/22 07:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*05/07/22 13:16*	*05/09/22 07:16*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

Client Sample ID: SS01A

Date Collected: 04/26/22 13:30
Date Received: 04/27/22 08:21
Sample Depth: 1

Lab Sample ID: 890-2250-2

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*05/07/22 13:16*	*05/09/22 07:16*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			05/03/22 16:49	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/28/22 13:59	05/02/22 17:58	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/28/22 13:59	05/02/22 17:58	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/28/22 13:59	05/02/22 17:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*04/28/22 13:59*	*05/02/22 17:58*	*1*
o-Terphenyl	*109*		*70 - 130*	*04/28/22 13:59*	*05/02/22 17:58*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**174**		4.96	mg/Kg			05/01/22 20:39	1

Client Sample ID: SS01B

Date Collected: 04/26/22 13:40
Date Received: 04/27/22 08:21
Sample Depth: 3

Lab Sample ID: 890-2250-3

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		05/07/22 13:16	05/09/22 07:37	1
Toluene	<0.00199	U	0.00199	mg/Kg		05/07/22 13:16	05/09/22 07:37	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		05/07/22 13:16	05/09/22 07:37	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		05/07/22 13:16	05/09/22 07:37	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		05/07/22 13:16	05/09/22 07:37	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		05/07/22 13:16	05/09/22 07:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*108*		*70 - 130*	*05/07/22 13:16*	*05/09/22 07:37*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*05/07/22 13:16*	*05/09/22 07:37*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			05/03/22 16:49	1

Client Sample Results

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

Client Sample ID: SS01B

Date Collected: 04/26/22 13:40
Date Received: 04/27/22 08:21
Sample Depth: 3

Lab Sample ID: 890-2250-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 18:19	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 18:19	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 18:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*04/28/22 13:59*	*05/02/22 18:19*	*1*
o-Terphenyl	*102*		*70 - 130*	*04/28/22 13:59*	*05/02/22 18:19*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**103**		5.00		mg/Kg			05/01/22 21:06	1

Client Sample ID: SS01C

Date Collected: 04/26/22 14:00
Date Received: 04/27/22 08:21
Sample Depth: 4

Lab Sample ID: 890-2250-4

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:16	05/09/22 07:57	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:16	05/09/22 07:57	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:16	05/09/22 07:57	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/07/22 13:16	05/09/22 07:57	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:16	05/09/22 07:57	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/07/22 13:16	05/09/22 07:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*05/07/22 13:16*	*05/09/22 07:57*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*05/07/22 13:16*	*05/09/22 07:57*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/03/22 16:49	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/28/22 13:59	05/02/22 18:41	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/28/22 13:59	05/02/22 18:41	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/28/22 13:59	05/02/22 18:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*104*		*70 - 130*	*04/28/22 13:59*	*05/02/22 18:41*	*1*
o-Terphenyl	*111*		*70 - 130*	*04/28/22 13:59*	*05/02/22 18:41*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

Client Sample ID: SS01C

Lab Sample ID: 890-2250-4
Matrix: Solid
Date Collected: 04/26/22 14:00
Date Received: 04/27/22 08:21
Sample Depth: 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**41.0**		4.98		mg/Kg			05/01/22 21:15	1

Client Sample ID: SS02

Lab Sample ID: 890-2250-5
Matrix: Solid
Date Collected: 04/26/22 10:15
Date Received: 04/27/22 08:21
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/07/22 13:16	05/09/22 08:17	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/07/22 13:16	05/09/22 08:17	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/07/22 13:16	05/09/22 08:17	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/07/22 13:16	05/09/22 08:17	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/07/22 13:16	05/09/22 08:17	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/07/22 13:16	05/09/22 08:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*	*05/07/22 13:16*	*05/09/22 08:17*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*05/07/22 13:16*	*05/09/22 08:17*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1800**		49.9		mg/Kg			05/03/22 16:49	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**705**		49.9		mg/Kg		04/28/22 13:59	05/02/22 19:03	1
Diesel Range Organics (Over C10-C28)	**1090**		49.9		mg/Kg		04/28/22 13:59	05/02/22 19:03	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/28/22 13:59	05/02/22 19:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*04/28/22 13:59*	*05/02/22 19:03*	*1*
o-Terphenyl	*106*		*70 - 130*	*04/28/22 13:59*	*05/02/22 19:03*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11900**		99.0		mg/Kg			05/01/22 21:23	20

Client Sample Results

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

Client Sample ID: SS02A

Lab Sample ID: 890-2250-6
Matrix: Solid
Date Collected: 04/26/22 10:45
Date Received: 04/27/22 08:21
Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/07/22 13:16	05/09/22 08:38	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/07/22 13:16	05/09/22 08:38	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/07/22 13:16	05/09/22 08:38	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/07/22 13:16	05/09/22 08:38	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/07/22 13:16	05/09/22 08:38	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/07/22 13:16	05/09/22 08:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*118*		*70 - 130*	*05/07/22 13:16*	*05/09/22 08:38*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*05/07/22 13:16*	*05/09/22 08:38*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/03/22 16:49	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 19:46	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 19:46	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 19:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*04/28/22 13:59*	*05/02/22 19:46*	*1*
o-Terphenyl	*111*		*70 - 130*	*04/28/22 13:59*	*05/02/22 19:46*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**241**		4.97		mg/Kg			05/01/22 21:32	1

Client Sample ID: SS02B

Lab Sample ID: 890-2250-7
Matrix: Solid
Date Collected: 04/26/22 11:40
Date Received: 04/27/22 08:21
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:16	05/09/22 08:58	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:16	05/09/22 08:58	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:16	05/09/22 08:58	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/07/22 13:16	05/09/22 08:58	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:16	05/09/22 08:58	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/07/22 13:16	05/09/22 08:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*05/07/22 13:16*	*05/09/22 08:58*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

Client Sample ID: SS02B

Date Collected: 04/26/22 11:40
Date Received: 04/27/22 08:21
Sample Depth: 4

Lab Sample ID: 890-2250-7

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*05/07/22 13:16*	*05/09/22 08:58*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/03/22 16:49	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 20:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 20:07	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 20:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*96*		*70 - 130*	*04/28/22 13:59*	*05/02/22 20:07*	*1*
o-Terphenyl	*107*		*70 - 130*	*04/28/22 13:59*	*05/02/22 20:07*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**154**		5.00		mg/Kg			05/01/22 21:41	1

Client Sample ID: SS03

Date Collected: 04/26/22 10:35
Date Received: 04/27/22 08:21
Sample Depth: 0.5

Lab Sample ID: 890-2250-8

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:16	05/09/22 09:19	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:16	05/09/22 09:19	1
Ethylbenzene	**0.00244**		0.00200		mg/Kg		05/07/22 13:16	05/09/22 09:19	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/07/22 13:16	05/09/22 09:19	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:16	05/09/22 09:19	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/07/22 13:16	05/09/22 09:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*05/07/22 13:16*	*05/09/22 09:19*	*1*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*05/07/22 13:16*	*05/09/22 09:19*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**3090**		50.0		mg/Kg			05/03/22 16:49	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

Client Sample ID: SS03

Lab Sample ID: 890-2250-8
Matrix: Solid
Date Collected: 04/26/22 10:35
Date Received: 04/27/22 08:21
Sample Depth: 0.5

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 20:29	1
Diesel Range Organics (Over C10-C28)	**3090**		50.0		mg/Kg		04/28/22 13:59	05/02/22 20:29	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 20:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*04/28/22 13:59*	*05/02/22 20:29*	*1*
o-Terphenyl	*109*		*70 - 130*	*04/28/22 13:59*	*05/02/22 20:29*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8670**		50.0		mg/Kg			05/01/22 21:50	10

Client Sample ID: SS03A

Lab Sample ID: 890-2250-9
Matrix: Solid
Date Collected: 04/26/22 13:15
Date Received: 04/27/22 08:21
Sample Depth: 4

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:16	05/09/22 09:39	1
Toluene	**0.00211**		0.00200		mg/Kg		05/07/22 13:16	05/09/22 09:39	1
Ethylbenzene	**0.00234**		0.00200		mg/Kg		05/07/22 13:16	05/09/22 09:39	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/07/22 13:16	05/09/22 09:39	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:16	05/09/22 09:39	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/07/22 13:16	05/09/22 09:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*132*	*S1+*	*70 - 130*	*05/07/22 13:16*	*05/09/22 09:39*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*05/07/22 13:16*	*05/09/22 09:39*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	**0.00445**		0.00401		mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/03/22 16:49	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/28/22 13:59	05/02/22 20:51	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/28/22 13:59	05/02/22 20:51	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/28/22 13:59	05/02/22 20:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*04/28/22 13:59*	*05/02/22 20:51*	*1*
o-Terphenyl	*109*		*70 - 130*	*04/28/22 13:59*	*05/02/22 20:51*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

Client Sample ID: SS03A
Lab Sample ID: 890-2250-9

Date Collected: 04/26/22 13:15
Matrix: Solid
Date Received: 04/27/22 08:21
Sample Depth: 4

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**248**		5.04		mg/Kg			05/01/22 22:16	1

Client Sample ID: SS04
Lab Sample ID: 890-2250-10

Date Collected: 04/26/22 10:40
Matrix: Solid
Date Received: 04/27/22 08:21
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		05/07/22 13:16	05/09/22 09:59	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/07/22 13:16	05/09/22 09:59	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/07/22 13:16	05/09/22 09:59	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		05/07/22 13:16	05/09/22 09:59	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/07/22 13:16	05/09/22 09:59	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		05/07/22 13:16	05/09/22 09:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*114*		*70 - 130*	*05/07/22 13:16*	*05/09/22 09:59*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*05/07/22 13:16*	*05/09/22 09:59*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**871**		49.8		mg/Kg			05/03/22 16:49	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		04/28/22 13:59	05/02/22 21:12	1
Diesel Range Organics (Over C10-C28)	**871**		49.8		mg/Kg		04/28/22 13:59	05/02/22 21:12	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		04/28/22 13:59	05/02/22 21:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*04/28/22 13:59*	*05/02/22 21:12*	*1*
o-Terphenyl	*96*		*70 - 130*	*04/28/22 13:59*	*05/02/22 21:12*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2770**		25.0		mg/Kg			05/01/22 22:25	5

Client Sample Results

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

Client Sample ID: SS04B
Date Collected: 04/26/22 12:10
Date Received: 04/27/22 08:21
Sample Depth: 3

Lab Sample ID: 890-2250-11
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:16	05/09/22 10:20	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:16	05/09/22 10:20	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:16	05/09/22 10:20	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/07/22 13:16	05/09/22 10:20	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:16	05/09/22 10:20	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/07/22 13:16	05/09/22 10:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*	*05/07/22 13:16*	*05/09/22 10:20*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*05/07/22 13:16*	*05/09/22 10:20*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/03/22 16:49	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 21:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 21:34	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 21:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*04/28/22 13:59*	*05/02/22 21:34*	*1*
o-Terphenyl	*109*		*70 - 130*	*04/28/22 13:59*	*05/02/22 21:34*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**142**		4.98		mg/Kg			05/01/22 22:52	1

Client Sample ID: FS01
Date Collected: 04/26/22 14:30
Date Received: 04/27/22 08:21
Sample Depth: 0.5

Lab Sample ID: 890-2250-12
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/07/22 13:16	05/09/22 12:10	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/07/22 13:16	05/09/22 12:10	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/07/22 13:16	05/09/22 12:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/07/22 13:16	05/09/22 12:10	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/07/22 13:16	05/09/22 12:10	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/07/22 13:16	05/09/22 12:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*113*		*70 - 130*	*05/07/22 13:16*	*05/09/22 12:10*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

Client Sample ID: FS01
Date Collected: 04/26/22 14:30
Date Received: 04/27/22 08:21
Sample Depth: 0.5

Lab Sample ID: 890-2250-12
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*05/07/22 13:16*	*05/09/22 12:10*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/09/22 11:41	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**209**		50.0		mg/Kg			05/03/22 16:49	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	**209**		50.0		mg/Kg		04/28/22 13:59	05/02/22 21:56	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 21:56	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 21:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*101*		*70 - 130*	*04/28/22 13:59*	*05/02/22 21:56*	*1*
o-Terphenyl	*109*		*70 - 130*	*04/28/22 13:59*	*05/02/22 21:56*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**16900**		249		mg/Kg			05/01/22 23:01	50

Surrogate Summary

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-14137-A-4-C MS	Matrix Spike	208 S1+	86
880-14137-A-4-D MSD	Matrix Spike Duplicate	185 S1+	78
890-2250-1	SS01	198 S1+	79
890-2250-2	SS01A	101	90
890-2250-2 MS	SS01A	110	98
890-2250-2 MSD	SS01A	97	91
890-2250-3	SS01B	108	88
890-2250-4	SS01C	114	98
890-2250-5	SS02	115	92
890-2250-6	SS02A	118	99
890-2250-7	SS02B	113	95
890-2250-8	SS03	105	87
890-2250-9	SS03A	132 S1+	102
890-2250-10	SS04	114	90
890-2250-11	SS04B	111	93
890-2250-12	FS01	113	98
LCS 880-25030/1-A	Lab Control Sample	192 S1+	77
LCS 880-25031/1-A	Lab Control Sample	105	93
LCSD 880-25030/2-A	Lab Control Sample Dup	190 S1+	90
LCSD 880-25031/2-A	Lab Control Sample Dup	109	99
MB 880-25029/5-A	Method Blank	130	72
MB 880-25030/5-A	Method Blank	136 S1+	72
MB 880-25031/5-A	Method Blank	100	92

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2249-A-1-D MS	Matrix Spike	85	84
890-2249-A-1-E MSD	Matrix Spike Duplicate	88	84
890-2250-1	SS01	118	123
890-2250-2	SS01A	100	109
890-2250-3	SS01B	95	102
890-2250-4	SS01C	104	111
890-2250-5	SS02	109	106
890-2250-6	SS02A	102	111
890-2250-7	SS02B	96	107
890-2250-8	SS03	102	109
890-2250-9	SS03A	98	109
890-2250-10	SS04	91	96
890-2250-11	SS04B	102	109
890-2250-12	FS01	101	109
LCS 880-24438/2-A	Lab Control Sample	104	108
LCSD 880-24438/3-A	Lab Control Sample Dup	103	108

Surrogate Summary

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

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

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

		Percent Surrogate Recovery (Acceptance Limits)									
		1CO1	OTPH1								
Lab Sample ID	Client Sample ID	(70-130)	(70-130)								
MB 880-24438/1-A	Method Blank	94	107								

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-25029/5-A
Matrix: Solid
Analysis Batch: 25032

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25029

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000400	U	0.000400		mg/Kg		05/07/22 13:06	05/07/22 20:28	1
Toluene	<0.000400	U	0.000400		mg/Kg		05/07/22 13:06	05/07/22 20:28	1
Ethylbenzene	<0.000400	U	0.000400		mg/Kg		05/07/22 13:06	05/07/22 20:28	1
m-Xylene & p-Xylene	<0.000800	U	0.000800		mg/Kg		05/07/22 13:06	05/07/22 20:28	1
o-Xylene	<0.000400	U	0.000400		mg/Kg		05/07/22 13:06	05/07/22 20:28	1
Xylenes, Total	<0.000800	U	0.000800		mg/Kg		05/07/22 13:06	05/07/22 20:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*130*		*70 - 130*	*05/07/22 13:06*	*05/07/22 20:28*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*	*05/07/22 13:06*	*05/07/22 20:28*	*1*

Lab Sample ID: MB 880-25030/5-A
Matrix: Solid
Analysis Batch: 25032

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25030

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:13	05/08/22 09:29	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:13	05/08/22 09:29	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:13	05/08/22 09:29	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/07/22 13:13	05/08/22 09:29	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:13	05/08/22 09:29	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/07/22 13:13	05/08/22 09:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*136*	*S1+*	*70 - 130*	*05/07/22 13:13*	*05/08/22 09:29*	*1*
1,4-Difluorobenzene (Surr)	*72*		*70 - 130*	*05/07/22 13:13*	*05/08/22 09:29*	*1*

Lab Sample ID: LCS 880-25030/1-A
Matrix: Solid
Analysis Batch: 25032

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25030

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09461		mg/Kg		95	70 - 130		
Toluene			0.100	0.08600		mg/Kg		86	70 - 130		
Ethylbenzene			0.100	0.09775		mg/Kg		98	70 - 130		
m-Xylene & p-Xylene			0.200	0.1960		mg/Kg		98	70 - 130		
o-Xylene			0.100	0.1008		mg/Kg		101	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*192*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*77*		*70 - 130*

Lab Sample ID: LCSD 880-25030/2-A
Matrix: Solid
Analysis Batch: 25032

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25030

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09331		mg/Kg		93	70 - 130	1	35

QC Sample Results

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

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

Lab Sample ID: LCSD 880-25030/2-A
Matrix: Solid
Analysis Batch: 25032

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25030

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.08691		mg/Kg		87	70 - 130	1	35
Ethylbenzene			0.100	0.09901		mg/Kg		99	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.1995		mg/Kg		100	70 - 130	2	35
o-Xylene			0.100	0.09966		mg/Kg		100	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*190*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*

Lab Sample ID: 880-14137-A-4-C MS
Matrix: Solid
Analysis Batch: 25032

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 25030

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U F1 F2	0.100	0.07844		mg/Kg		78	70 - 130
Toluene	<0.00202	U F1 F2	0.100	0.07387		mg/Kg		74	70 - 130
Ethylbenzene	<0.00202	U F1 F2	0.100	0.08485		mg/Kg		85	70 - 130
m-Xylene & p-Xylene	<0.00403	U F1 F2	0.200	0.1720		mg/Kg		86	70 - 130
o-Xylene	<0.00202	U F1 F2	0.100	0.08515		mg/Kg		85	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*208*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*86*		*70 - 130*

Lab Sample ID: 880-14137-A-4-D MSD
Matrix: Solid
Analysis Batch: 25032

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 25030

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U F1 F2	0.0998	0.04258	F1 F2	mg/Kg		43	70 - 130	59	35
Toluene	<0.00202	U F1 F2	0.0998	0.04503	F1 F2	mg/Kg		45	70 - 130	49	35
Ethylbenzene	<0.00202	U F1 F2	0.0998	0.05092	F1 F2	mg/Kg		51	70 - 130	50	35
m-Xylene & p-Xylene	<0.00403	U F1 F2	0.200	0.1056	F1 F2	mg/Kg		53	70 - 130	48	35
o-Xylene	<0.00202	U F1 F2	0.0998	0.02247	F1 F2	mg/Kg		23	70 - 130	116	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*185*	*S1+*	*70 - 130*
1,4-Difluorobenzene (Surr)	*78*		*70 - 130*

Lab Sample ID: MB 880-25031/5-A
Matrix: Solid
Analysis Batch: 25034

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25031

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:16	05/09/22 06:48	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:16	05/09/22 06:48	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:16	05/09/22 06:48	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/07/22 13:16	05/09/22 06:48	1

QC Sample Results

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

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

Lab Sample ID: MB 880-25031/5-A
Matrix: Solid
Analysis Batch: 25034

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 25031

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/07/22 13:16	05/09/22 06:48	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/07/22 13:16	05/09/22 06:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*	*05/07/22 13:16*	*05/09/22 06:48*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*05/07/22 13:16*	*05/09/22 06:48*	*1*

Lab Sample ID: LCS 880-25031/1-A
Matrix: Solid
Analysis Batch: 25034

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 25031

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.07663		mg/Kg		77	70 - 130		
Toluene			0.100	0.08342		mg/Kg		83	70 - 130		
Ethylbenzene			0.100	0.08407		mg/Kg		84	70 - 130		
m-Xylene & p-Xylene			0.200	0.1762		mg/Kg		88	70 - 130		
o-Xylene			0.100	0.09680		mg/Kg		97	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

Lab Sample ID: LCSD 880-25031/2-A
Matrix: Solid
Analysis Batch: 25034

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 25031

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09003		mg/Kg		90	70 - 130	16	35
Toluene			0.100	0.09126		mg/Kg		91	70 - 130	9	35
Ethylbenzene			0.100	0.09457		mg/Kg		95	70 - 130	12	35
m-Xylene & p-Xylene			0.200	0.1967		mg/Kg		98	70 - 130	11	35
o-Xylene			0.100	0.1068		mg/Kg		107	70 - 130	10	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 890-2250-2 MS
Matrix: Solid
Analysis Batch: 25034

Client Sample ID: SS01A
Prep Type: Total/NA
Prep Batch: 25031

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00199	U F1 F2	0.100	0.05235	F1	mg/Kg		52	70 - 130		
Toluene	<0.00199	U F1 F2	0.100	0.05698	F1	mg/Kg		56	70 - 130		
Ethylbenzene	<0.00199	U F1 F2	0.100	0.05914	F1	mg/Kg		58	70 - 130		
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.200	0.1271	F1	mg/Kg		63	70 - 130		
o-Xylene	<0.00199	U F1 F2	0.100	0.06965		mg/Kg		70	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

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

Lab Sample ID: 890-2250-2 MS
Matrix: Solid
Analysis Batch: 25034

Client Sample ID: SS01A
Prep Type: Total/NA
Prep Batch: 25031

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 890-2250-2 MSD
Matrix: Solid
Analysis Batch: 25034

Client Sample ID: SS01A
Prep Type: Total/NA
Prep Batch: 25031

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U F1 F2	0.0996	0.01614	F1 F2	mg/Kg		16	70 - 130	106	35
Toluene	<0.00199	U F1 F2	0.0996	0.01901	F1 F2	mg/Kg		18	70 - 130	100	35
Ethylbenzene	<0.00199	U F1 F2	0.0996	0.02118	F1 F2	mg/Kg		21	70 - 130	95	35
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.199	0.04444	F1 F2	mg/Kg		21	70 - 130	96	35
o-Xylene	<0.00199	U F1 F2	0.0996	0.02422	F1 F2	mg/Kg		24	70 - 130	97	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*91*		*70 - 130*

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

Lab Sample ID: MB 880-24438/1-A
Matrix: Solid
Analysis Batch: 24609

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24438

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 14:00	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 14:00	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/28/22 13:59	05/02/22 14:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*94*		*70 - 130*	*04/28/22 13:59*	*05/02/22 14:00*	*1*
o-Terphenyl	*107*		*70 - 130*	*04/28/22 13:59*	*05/02/22 14:00*	*1*

Lab Sample ID: LCS 880-24438/2-A
Matrix: Solid
Analysis Batch: 24609

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24438

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	908.3		mg/Kg		91	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	991.2		mg/Kg		99	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	*104*		*70 - 130*
o-Terphenyl	*108*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

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

Lab Sample ID: LCSD 880-24438/3-A
Matrix: Solid
Analysis Batch: 24609

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 24438

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	908.3		mg/Kg		91	70 - 130	0	20
Diesel Range Organics (Over C10-C28)			1000	988.6		mg/Kg		99	70 - 130	0	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*103*		*70 - 130*
o-Terphenyl	*108*		*70 - 130*

Lab Sample ID: 890-2249-A-1-D MS
Matrix: Solid
Analysis Batch: 24609

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 24438

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	789.6		mg/Kg		79	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	816.9		mg/Kg		82	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*85*		*70 - 130*
o-Terphenyl	*84*		*70 - 130*

Lab Sample ID: 890-2249-A-1-E MSD
Matrix: Solid
Analysis Batch: 24609

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 24438

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	<50.0	U	998	831.8		mg/Kg		83	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	818.2		mg/Kg		82	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*88*		*70 - 130*
o-Terphenyl	*84*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-24411/1-A
Matrix: Solid
Analysis Batch: 24591

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			05/01/22 19:20	1

QC Sample Results

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 880-24411/2-A
Matrix: Solid
Analysis Batch: 24591

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	235.0		mg/Kg		94	90 - 110		

Lab Sample ID: LCSD 880-24411/3-A
Matrix: Solid
Analysis Batch: 24591

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	235.6		mg/Kg		94	90 - 110	0	20

Lab Sample ID: 890-2250-8 MS
Matrix: Solid
Analysis Batch: 24591

Client Sample ID: SS03
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	8670		2500	11400		mg/Kg		109	90 - 110		

Lab Sample ID: 890-2250-8 MSD
Matrix: Solid
Analysis Batch: 24591

Client Sample ID: SS03
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	8670		2500	11130		mg/Kg		99	90 - 110	2	20

QC Association Summary

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

GC VOA

Prep Batch: 25029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-25029/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 25030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2250-1	SS01	Total/NA	Solid	5035	
MB 880-25030/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-25030/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-25030/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-14137-A-4-C MS	Matrix Spike	Total/NA	Solid	5035	
880-14137-A-4-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 25031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2250-2	SS01A	Total/NA	Solid	5035	
890-2250-3	SS01B	Total/NA	Solid	5035	
890-2250-4	SS01C	Total/NA	Solid	5035	
890-2250-5	SS02	Total/NA	Solid	5035	
890-2250-6	SS02A	Total/NA	Solid	5035	
890-2250-7	SS02B	Total/NA	Solid	5035	
890-2250-8	SS03	Total/NA	Solid	5035	
890-2250-9	SS03A	Total/NA	Solid	5035	
890-2250-10	SS04	Total/NA	Solid	5035	
890-2250-11	SS04B	Total/NA	Solid	5035	
890-2250-12	FS01	Total/NA	Solid	5035	
MB 880-25031/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-25031/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-25031/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2250-2 MS	SS01A	Total/NA	Solid	5035	
890-2250-2 MSD	SS01A	Total/NA	Solid	5035	

Analysis Batch: 25032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2250-1	SS01	Total/NA	Solid	8021B	25030
MB 880-25029/5-A	Method Blank	Total/NA	Solid	8021B	25029
MB 880-25030/5-A	Method Blank	Total/NA	Solid	8021B	25030
LCS 880-25030/1-A	Lab Control Sample	Total/NA	Solid	8021B	25030
LCSD 880-25030/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	25030
880-14137-A-4-C MS	Matrix Spike	Total/NA	Solid	8021B	25030
880-14137-A-4-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	25030

Analysis Batch: 25034

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2250-2	SS01A	Total/NA	Solid	8021B	25031
890-2250-3	SS01B	Total/NA	Solid	8021B	25031
890-2250-4	SS01C	Total/NA	Solid	8021B	25031
890-2250-5	SS02	Total/NA	Solid	8021B	25031
890-2250-6	SS02A	Total/NA	Solid	8021B	25031
890-2250-7	SS02B	Total/NA	Solid	8021B	25031
890-2250-8	SS03	Total/NA	Solid	8021B	25031
890-2250-9	SS03A	Total/NA	Solid	8021B	25031
890-2250-10	SS04	Total/NA	Solid	8021B	25031

QC Association Summary

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

GC VOA (Continued)

Analysis Batch: 25034 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2250-11	SS04B	Total/NA	Solid	8021B	25031
890-2250-12	FS01	Total/NA	Solid	8021B	25031
MB 880-25031/5-A	Method Blank	Total/NA	Solid	8021B	25031
LCS 880-25031/1-A	Lab Control Sample	Total/NA	Solid	8021B	25031
LCSD 880-25031/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	25031
890-2250-2 MS	SS01A	Total/NA	Solid	8021B	25031
890-2250-2 MSD	SS01A	Total/NA	Solid	8021B	25031

Analysis Batch: 25082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2250-1	SS01	Total/NA	Solid	Total BTEX	
890-2250-2	SS01A	Total/NA	Solid	Total BTEX	
890-2250-3	SS01B	Total/NA	Solid	Total BTEX	
890-2250-4	SS01C	Total/NA	Solid	Total BTEX	
890-2250-5	SS02	Total/NA	Solid	Total BTEX	
890-2250-6	SS02A	Total/NA	Solid	Total BTEX	
890-2250-7	SS02B	Total/NA	Solid	Total BTEX	
890-2250-8	SS03	Total/NA	Solid	Total BTEX	
890-2250-9	SS03A	Total/NA	Solid	Total BTEX	
890-2250-10	SS04	Total/NA	Solid	Total BTEX	
890-2250-11	SS04B	Total/NA	Solid	Total BTEX	
890-2250-12	FS01	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 24438

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2250-1	SS01	Total/NA	Solid	8015NM Prep	
890-2250-2	SS01A	Total/NA	Solid	8015NM Prep	
890-2250-3	SS01B	Total/NA	Solid	8015NM Prep	
890-2250-4	SS01C	Total/NA	Solid	8015NM Prep	
890-2250-5	SS02	Total/NA	Solid	8015NM Prep	
890-2250-6	SS02A	Total/NA	Solid	8015NM Prep	
890-2250-7	SS02B	Total/NA	Solid	8015NM Prep	
890-2250-8	SS03	Total/NA	Solid	8015NM Prep	
890-2250-9	SS03A	Total/NA	Solid	8015NM Prep	
890-2250-10	SS04	Total/NA	Solid	8015NM Prep	
890-2250-11	SS04B	Total/NA	Solid	8015NM Prep	
890-2250-12	FS01	Total/NA	Solid	8015NM Prep	
MB 880-24438/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-24438/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-24438/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2249-A-1-D MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2249-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 24609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2250-1	SS01	Total/NA	Solid	8015B NM	24438
890-2250-2	SS01A	Total/NA	Solid	8015B NM	24438
890-2250-3	SS01B	Total/NA	Solid	8015B NM	24438
890-2250-4	SS01C	Total/NA	Solid	8015B NM	24438

QC Association Summary

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

GC Semi VOA (Continued)

Analysis Batch: 24609 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2250-5	SS02	Total/NA	Solid	8015B NM	24438
890-2250-6	SS02A	Total/NA	Solid	8015B NM	24438
890-2250-7	SS02B	Total/NA	Solid	8015B NM	24438
890-2250-8	SS03	Total/NA	Solid	8015B NM	24438
890-2250-9	SS03A	Total/NA	Solid	8015B NM	24438
890-2250-10	SS04	Total/NA	Solid	8015B NM	24438
890-2250-11	SS04B	Total/NA	Solid	8015B NM	24438
890-2250-12	FS01	Total/NA	Solid	8015B NM	24438
MB 880-24438/1-A	Method Blank	Total/NA	Solid	8015B NM	24438
LCS 880-24438/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	24438
LCSD 880-24438/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	24438
890-2249-A-1-D MS	Matrix Spike	Total/NA	Solid	8015B NM	24438
890-2249-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	24438

Analysis Batch: 24758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2250-1	SS01	Total/NA	Solid	8015 NM	
890-2250-2	SS01A	Total/NA	Solid	8015 NM	
890-2250-3	SS01B	Total/NA	Solid	8015 NM	
890-2250-4	SS01C	Total/NA	Solid	8015 NM	
890-2250-5	SS02	Total/NA	Solid	8015 NM	
890-2250-6	SS02A	Total/NA	Solid	8015 NM	
890-2250-7	SS02B	Total/NA	Solid	8015 NM	
890-2250-8	SS03	Total/NA	Solid	8015 NM	
890-2250-9	SS03A	Total/NA	Solid	8015 NM	
890-2250-10	SS04	Total/NA	Solid	8015 NM	
890-2250-11	SS04B	Total/NA	Solid	8015 NM	
890-2250-12	FS01	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 24411

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2250-1	SS01	Soluble	Solid	DI Leach	
890-2250-2	SS01A	Soluble	Solid	DI Leach	
890-2250-3	SS01B	Soluble	Solid	DI Leach	
890-2250-4	SS01C	Soluble	Solid	DI Leach	
890-2250-5	SS02	Soluble	Solid	DI Leach	
890-2250-6	SS02A	Soluble	Solid	DI Leach	
890-2250-7	SS02B	Soluble	Solid	DI Leach	
890-2250-8	SS03	Soluble	Solid	DI Leach	
890-2250-9	SS03A	Soluble	Solid	DI Leach	
890-2250-10	SS04	Soluble	Solid	DI Leach	
890-2250-11	SS04B	Soluble	Solid	DI Leach	
890-2250-12	FS01	Soluble	Solid	DI Leach	
MB 880-24411/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-24411/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-24411/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2250-8 MS	SS03	Soluble	Solid	DI Leach	
890-2250-8 MSD	SS03	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

HPLC/IC

Analysis Batch: 24591

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2250-1	SS01	Soluble	Solid	300.0	24411
890-2250-2	SS01A	Soluble	Solid	300.0	24411
890-2250-3	SS01B	Soluble	Solid	300.0	24411
890-2250-4	SS01C	Soluble	Solid	300.0	24411
890-2250-5	SS02	Soluble	Solid	300.0	24411
890-2250-6	SS02A	Soluble	Solid	300.0	24411
890-2250-7	SS02B	Soluble	Solid	300.0	24411
890-2250-8	SS03	Soluble	Solid	300.0	24411
890-2250-9	SS03A	Soluble	Solid	300.0	24411
890-2250-10	SS04	Soluble	Solid	300.0	24411
890-2250-11	SS04B	Soluble	Solid	300.0	24411
890-2250-12	FS01	Soluble	Solid	300.0	24411
MB 880-24411/1-A	Method Blank	Soluble	Solid	300.0	24411
LCS 880-24411/2-A	Lab Control Sample	Soluble	Solid	300.0	24411
LCSD 880-24411/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	24411
890-2250-8 MS	SS03	Soluble	Solid	300.0	24411
890-2250-8 MSD	SS03	Soluble	Solid	300.0	24411

Lab Chronicle

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

Client Sample ID: SS01
Date Collected: 04/26/22 10:25
Date Received: 04/27/22 08:21

Lab Sample ID: 890-2250-1
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	25030	05/07/22 13:13	MR	XEN MID
Total/NA	Analysis	8021B		1			25032	05/08/22 19:24	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25082	05/09/22 11:41	MR	XEN MID
Total/NA	Analysis	8015 NM		1			24758	05/03/22 16:49	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	24438	04/28/22 13:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24609	05/02/22 17:36	BJH	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	24411	04/28/22 11:37	SC	XEN MID
Soluble	Analysis	300.0		20			24591	05/01/22 20:30	CH	XEN MID

Client Sample ID: SS01A
Date Collected: 04/26/22 13:30
Date Received: 04/27/22 08:21

Lab Sample ID: 890-2250-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	25031	05/07/22 13:16	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25034	05/09/22 07:16	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25082	05/09/22 11:41	MR	XEN MID
Total/NA	Analysis	8015 NM		1			24758	05/03/22 16:49	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24438	04/28/22 13:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24609	05/02/22 17:58	BJH	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	24411	04/28/22 11:37	SC	XEN MID
Soluble	Analysis	300.0		1			24591	05/01/22 20:39	CH	XEN MID

Client Sample ID: SS01B
Date Collected: 04/26/22 13:40
Date Received: 04/27/22 08:21

Lab Sample ID: 890-2250-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	25031	05/07/22 13:16	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25034	05/09/22 07:37	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25082	05/09/22 11:41	MR	XEN MID
Total/NA	Analysis	8015 NM		1			24758	05/03/22 16:49	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24438	04/28/22 13:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24609	05/02/22 18:19	BJH	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	24411	04/28/22 11:37	SC	XEN MID
Soluble	Analysis	300.0		1			24591	05/01/22 21:06	CH	XEN MID

Client Sample ID: SS01C
Date Collected: 04/26/22 14:00
Date Received: 04/27/22 08:21

Lab Sample ID: 890-2250-4
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			5.01 g	5 mL	25031	05/07/22 13:16	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25034	05/09/22 07:57	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25082	05/09/22 11:41	MR	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

Client Sample ID: SS01C
Date Collected: 04/26/22 14:00
Date Received: 04/27/22 08:21

Lab Sample ID: 890-2250-4
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			24758	05/03/22 16:49	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	24438	04/28/22 13:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24609	05/02/22 18:41	BJH	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	24411	04/28/22 11:37	SC	XEN MID
Soluble	Analysis	300.0		1			24591	05/01/22 21:15	CH	XEN MID

Client Sample ID: SS02
Date Collected: 04/26/22 10:15
Date Received: 04/27/22 08:21

Lab Sample ID: 890-2250-5
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			5.02 g	5 mL	25031	05/07/22 13:16	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25034	05/09/22 08:17	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25082	05/09/22 11:41	MR	XEN MID
Total/NA	Analysis	8015 NM		1			24758	05/03/22 16:49	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	24438	04/28/22 13:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24609	05/02/22 19:03	BJH	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	24411	04/28/22 11:37	SC	XEN MID
Soluble	Analysis	300.0		20			24591	05/01/22 21:23	CH	XEN MID

Client Sample ID: SS02A
Date Collected: 04/26/22 10:45
Date Received: 04/27/22 08:21

Lab Sample ID: 890-2250-6
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			5.03 g	5 mL	25031	05/07/22 13:16	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25034	05/09/22 08:38	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25082	05/09/22 11:41	MR	XEN MID
Total/NA	Analysis	8015 NM		1			24758	05/03/22 16:49	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24438	04/28/22 13:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24609	05/02/22 19:46	BJH	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	24411	04/28/22 11:37	SC	XEN MID
Soluble	Analysis	300.0		1			24591	05/01/22 21:32	CH	XEN MID

Client Sample ID: SS02B
Date Collected: 04/26/22 11:40
Date Received: 04/27/22 08:21

Lab Sample ID: 890-2250-7
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			5.00 g	5 mL	25031	05/07/22 13:16	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25034	05/09/22 08:58	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25082	05/09/22 11:41	MR	XEN MID
Total/NA	Analysis	8015 NM		1			24758	05/03/22 16:49	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24438	04/28/22 13:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24609	05/02/22 20:07	BJH	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

Client Sample ID: SS02B
Date Collected: 04/26/22 11:40
Date Received: 04/27/22 08:21

Lab Sample ID: 890-2250-7
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			5 g	50 mL	24411	04/28/22 11:37	SC	XEN MID
Soluble	Analysis	300.0		1			24591	05/01/22 21:41	CH	XEN MID

Client Sample ID: SS03
Date Collected: 04/26/22 10:35
Date Received: 04/27/22 08:21

Lab Sample ID: 890-2250-8
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	25031	05/07/22 13:16	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25034	05/09/22 09:19	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25082	05/09/22 11:41	MR	XEN MID
Total/NA	Analysis	8015 NM		1			24758	05/03/22 16:49	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24438	04/28/22 13:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24609	05/02/22 20:29	BJH	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	24411	04/28/22 11:37	SC	XEN MID
Soluble	Analysis	300.0		10			24591	05/01/22 21:50	CH	XEN MID

Client Sample ID: SS03A
Date Collected: 04/26/22 13:15
Date Received: 04/27/22 08:21

Lab Sample ID: 890-2250-9
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	25031	05/07/22 13:16	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25034	05/09/22 09:39	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25082	05/09/22 11:41	MR	XEN MID
Total/NA	Analysis	8015 NM		1			24758	05/03/22 16:49	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	24438	04/28/22 13:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24609	05/02/22 20:51	BJH	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	24411	04/28/22 11:37	SC	XEN MID
Soluble	Analysis	300.0		1			24591	05/01/22 22:16	CH	XEN MID

Client Sample ID: SS04
Date Collected: 04/26/22 10:40
Date Received: 04/27/22 08:21

Lab Sample ID: 890-2250-10
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	25031	05/07/22 13:16	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25034	05/09/22 09:59	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25082	05/09/22 11:41	MR	XEN MID
Total/NA	Analysis	8015 NM		1			24758	05/03/22 16:49	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	24438	04/28/22 13:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24609	05/02/22 21:12	BJH	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	24411	04/28/22 11:37	SC	XEN MID
Soluble	Analysis	300.0		5			24591	05/01/22 22:25	CH	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

Client Sample ID: SS04B
Date Collected: 04/26/22 12:10
Date Received: 04/27/22 08:21

Lab Sample ID: 890-2250-11
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	25031	05/07/22 13:16	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25034	05/09/22 10:20	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25082	05/09/22 11:41	MR	XEN MID
Total/NA	Analysis	8015 NM		1			24758	05/03/22 16:49	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24438	04/28/22 13:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24609	05/02/22 21:34	BJH	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	24411	04/28/22 11:37	SC	XEN MID
Soluble	Analysis	300.0		1			24591	05/01/22 22:52	CH	XEN MID

Client Sample ID: FS01
Date Collected: 04/26/22 14:30
Date Received: 04/27/22 08:21

Lab Sample ID: 890-2250-12
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	25031	05/07/22 13:16	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25034	05/09/22 12:10	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			25082	05/09/22 11:41	MR	XEN MID
Total/NA	Analysis	8015 NM		1			24758	05/03/22 16:49	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24438	04/28/22 13:59	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24609	05/02/22 21:56	BJH	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	24411	04/28/22 11:37	SC	XEN MID
Soluble	Analysis	300.0		50			24591	05/01/22 23:01	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

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	T104704400-21-22	06-30-22

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: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: PLU 213

Job ID: 890-2250-1
SDG: 03E1558014

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2250-1	SS01	Solid	04/26/22 10:25	04/27/22 08:21	0.5
890-2250-2	SS01A	Solid	04/26/22 13:30	04/27/22 08:21	1
890-2250-3	SS01B	Solid	04/26/22 13:40	04/27/22 08:21	3
890-2250-4	SS01C	Solid	04/26/22 14:00	04/27/22 08:21	4
890-2250-5	SS02	Solid	04/26/22 10:15	04/27/22 08:21	0.5
890-2250-6	SS02A	Solid	04/26/22 10:45	04/27/22 08:21	1
890-2250-7	SS02B	Solid	04/26/22 11:40	04/27/22 08:21	4
890-2250-8	SS03	Solid	04/26/22 10:35	04/27/22 08:21	0.5
890-2250-9	SS03A	Solid	04/26/22 13:15	04/27/22 08:21	4
890-2250-10	SS04	Solid	04/26/22 10:40	04/27/22 08:21	0.5
890-2250-11	SS04B	Solid	04/26/22 12:10	04/27/22 08:21	3
890-2250-12	FS01	Solid	04/26/22 14:30	04/27/22 08:21	0.5

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Chain of Custody

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

Work Order No: _____

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Project Manager:	Kalei Jennings	Bill to: (if different)	~~XTO Energy~~ Adrian Baker
Company Name:	Ensolum	Company Name:	XTO Energy
Address:		Address:	
City, State ZIP:	Midland TX	City, State ZIP:	
Phone:	Email:		kjennings@ensolum.com

Work Order Comments

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

Project Name:	PLH 213	Turn Around	☑ Routine ☐ Rush
Project Number:	03E1558014	Due Date:	
Project Location:	32.21242, -103.91386	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Al. Castro		
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	TNM_007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	1.0	
Total Containers:		Corrected Temperature:	0.8	

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	TPH (EPA 8015)	BTEX (EPA 8021)	Chloride (EPA 300)	Sample Comments
SS01	S	4/26/22	1025	0.5	G	1		X	X	X	Incident ID NAPP2205434446
SS01A	S	4/26/22	1330	1	G	1		X	X	X	CC 1081131001
SS01B	S	4/26/22	1340	3		1		X	X	X	
~~SS01B~~ SS01C	S	4/26/22	1400	4		1		X	X	X	
SS02	S	"	1015	0.5		1		X	X	X	
SS02A	S		1045	1		1		X	X	X	
SS02B	S		1140	4		1		X	X	X	
SS03	S		1035	0.5		1		X	X	X	
SS03A	S		1315	4		1		X	X	X	
SS04	S		1040	0.5		2		X	X	X	

890-2250 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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 MC	Monterey	4/26/22 1730	2		
3	4.27.22 0821		4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 2 of 2

Project Manager:	K Jennings	Bill to: (if different)	Adrian Baker
Company Name:	Ensolum	Company Name:	XTO Energy
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:		Email:	kjennings@ensolum.com

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

Project Name:	PLU 213	Turn Around	☑ Routine ☐ Rush
Project Number:	03E1558014	Due Date:	
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	M. Castro		
PO #:			

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

PS1

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	Parameters: BTEX (EPA 8021)	TPH (EPA 8015)	Chloride (EPA 300)	Sample Comments
SS04B	S	4/26/22	1210	3		1		X	X	X	Incident # NAPP2205431646
FS01	S	4/26/22	1430	0.5		1		X	X	X	CC1081131001

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		4/26/22 1730	2		4/27/22 800
3	4.27.22 0821		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

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Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-730 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Jessica Kramer@et.eurofinsus com	State of Origin: New Mexico	Page: Page 1 of 2
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-2250-1
Address: 1211 W Florida Ave	Due Date Requested: 5/3/2022			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: PLU 213	Project #: 89000093			
Site	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	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:										
SS01 (890-2250-1)	4/26/22	10 25 Mountain		Solid			X	X	X	X	X	1	
SS01A (890-2250-2)	4/26/22	13 30 Mountain		Solid			X	X	X	X	X	1	
SS01B (890-2250-3)	4/26/22	13 40 Mountain		Solid			X	X	X	X	X	1	
SS01C (890-2250-4)	4/26/22	14 00 Mountain		Solid			X	X	X	X	X	1	
SS02 (890-2250-5)	4/26/22	10 15 Mountain		Solid			X	X	X	X	X	1	
SS02A (890-2250-6)	4/26/22	10 45 Mountain		Solid			X	X	X	X	X	1	
SS02B (890-2250-7)	4/26/22	11 40 Mountain		Solid			X	X	X	X	X	1	
SS03 (890-2250-8)	4/26/22	10 35 Mountain		Solid			X	X	X	X	X	1	
SS03A (890-2250-9)	4/26/22	13 15 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 out 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 complicance to Eurofins Environment Testing South Central LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ 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
Clue Cuyo 4.27.22			Latrena R	4/28/22 10:20	
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks. 1.5 | 1.3 -2 IR8

Ver: 06/08/2021

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

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-730 2
Client Contact: Shipping/Receiving	Phone:	E-Mail: Jessica Kramer@et eurofinsus com	State of Origin: New Mexico	Page: Page 2 of 2
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-2250-1
Address: 1211 W Florida Ave,	Due Date Requested: 5/3/2022			
City: Midland	TAT Requested (days):			
State Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: PLU 213	Project #: 89000093			
Site:	SSOW#:			

Analysis Requested

Preservation Codes

A	HCL	M	Hexane
B	NaOH	N	None
C	Zn Acetate	O	AsNaO2
D	Nitric Acid	P	Na2O4S
E	NaHSO4	Q	Na2SO3
F	MeOH	R	Na2S2O3
G	Amchlor	S	H2SO4
H	Ascorbic Acid	T	TSP Dodecahydrate
I	Ice	U	Acetone
J	DI Water	V	MCAA
K	EDTA	W	pH 4-5
L	EDA	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:													
SS04 (890-2250-10)	4/26/22	10 40 Mountain		Solid			X	X	X	X	X	2	
SS04B (890-2250-11)	4/26/22	12 10 Mountain		Solid			X	X	X	X	X	1	
FS01 (890-2250-12)	4/26/22	14 30 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 out 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 complicance to Eurofins Environment Testing South Central LLC

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ 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
1	[signature] 4.27.22			[signature]	4/28/22	
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact. Δ Yes Δ No	Custody Seal No.	Cooler Temperature(s) °C and Other Remarks	1.5 | 1.3 -2 IR8

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2250-1
SDG Number: 03E1558014

Login Number: 2250
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2250-1
SDG Number: 03E1558014

Login Number: 2250
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 04/28/22 10:30 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-2458-1
Laboratory Sample Delivery Group: 03E1558014
Client Project/Site: PLU 213 BATTERY

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
7/5/2022 11:03:31 AM

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

Client: Ensolum
Project/Site: PLU 213 BATTERY

Laboratory Job ID: 890-2458-1
SDG: 03E1558014

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Definitions/Glossary

Client: Ensolum Job ID: 890-2458-1
Project/Site: PLU 213 BATTERY SDG: 03E1558014

Qualifiers

GC VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: PLU 213 BATTERY

Job ID: 890-2458-1
SDG: 03E1558014

Job ID: 890-2458-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2458-1

Receipt
The sample was received on 6/24/2022 1:38 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (MB 880-28434/1-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (890-2457-A-1-B). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: FS02 (890-2458-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-28434 and analytical batch 880-28413 was outside control limits. Sample non-homogeneity is suspected.

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

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

Client Sample Results

Client: Ensolum
Project/Site: PLU 213 BATTERY

Job ID: 890-2458-1
SDG: 03E1558014

Client Sample ID: FS02

Date Collected: 06/24/22 09:30
Date Received: 06/24/22 13:38
Sample Depth: 0.75

Lab Sample ID: 890-2458-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/28/22 08:42	06/28/22 19:16	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/28/22 08:42	06/28/22 19:16	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/28/22 08:42	06/28/22 19:16	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		06/28/22 08:42	06/28/22 19:16	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/28/22 08:42	06/28/22 19:16	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		06/28/22 08:42	06/28/22 19:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*06/28/22 08:42*	*06/28/22 19:16*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*06/28/22 08:42*	*06/28/22 19:16*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			06/29/22 09:18	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			06/28/22 12:53	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		06/27/22 09:56	06/27/22 14:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/27/22 09:56	06/27/22 14:23	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/27/22 09:56	06/27/22 14:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*118*		*70 - 130*	*06/27/22 09:56*	*06/27/22 14:23*	*1*
o-Terphenyl	*133*	*S1+*	*70 - 130*	*06/27/22 09:56*	*06/27/22 14:23*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2730**		24.9		mg/Kg			07/02/22 03:30	5

Surrogate Summary

Client: Ensolum
Project/Site: PLU 213 BATTERY

Job ID: 890-2458-1
SDG: 03E1558014

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-2458-1	FS02	107	88										
890-2464-A-11-I MS	Matrix Spike	110	103										
890-2464-A-11-J MSD	Matrix Spike Duplicate	110	93										
LCS 880-28503/1-A	Lab Control Sample	107	100										
LCSD 880-28503/2-A	Lab Control Sample Dup	106	99										
MB 880-28503/5-A	Method Blank	99	89										

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)										
890-2457-A-1-C MS	Matrix Spike	110	111										
890-2457-A-1-D MSD	Matrix Spike Duplicate	98	102										
890-2458-1	FS02	118	133 S1+										
LCS 880-28434/2-A	Lab Control Sample	92	102										
LCSD 880-28434/3-A	Lab Control Sample Dup	92	102										
MB 880-28434/1-A	Method Blank	112	132 S1+										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: PLU 213 BATTERY

Job ID: 890-2458-1
SDG: 03E1558014

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-28503/5-A
Matrix: Solid
Analysis Batch: 28497

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28503

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		06/28/22 08:42	06/28/22 11:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		06/28/22 08:42	06/28/22 11:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		06/28/22 08:42	06/28/22 11:21	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		06/28/22 08:42	06/28/22 11:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		06/28/22 08:42	06/28/22 11:21	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		06/28/22 08:42	06/28/22 11:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*06/28/22 08:42*	*06/28/22 11:21*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*06/28/22 08:42*	*06/28/22 11:21*	*1*

Lab Sample ID: LCS 880-28503/1-A
Matrix: Solid
Analysis Batch: 28497

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28503

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09926		mg/Kg		99	70 - 130		
Toluene			0.100	0.1001		mg/Kg		100	70 - 130		
Ethylbenzene			0.100	0.1047		mg/Kg		105	70 - 130		
m-Xylene & p-Xylene			0.200	0.2175		mg/Kg		109	70 - 130		
o-Xylene			0.100	0.1093		mg/Kg		109	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: LCSD 880-28503/2-A
Matrix: Solid
Analysis Batch: 28497

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 28503

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09871		mg/Kg		99	70 - 130	1	35
Toluene			0.100	0.09884		mg/Kg		99	70 - 130	1	35
Ethylbenzene			0.100	0.1029		mg/Kg		103	70 - 130	2	35
m-Xylene & p-Xylene			0.200	0.2143		mg/Kg		107	70 - 130	1	35
o-Xylene			0.100	0.1077		mg/Kg		108	70 - 130	1	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*

Lab Sample ID: 890-2464-A-11-I MS
Matrix: Solid
Analysis Batch: 28497

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 28503

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.100	0.09497		mg/Kg		95	70 - 130		
Toluene	<0.00201	U	0.100	0.09021		mg/Kg		90	70 - 130		

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QC Sample Results

Client: Ensolum
Project/Site: PLU 213 BATTERY

Job ID: 890-2458-1
SDG: 03E1558014

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

Lab Sample ID: 890-2464-A-11-I MS
Matrix: Solid
Analysis Batch: 28497

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 28503

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.100	0.09054		mg/Kg		90	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1860		mg/Kg		93	70 - 130
o-Xylene	<0.00201	U	0.100	0.09401		mg/Kg		94	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: 890-2464-A-11-J MSD
Matrix: Solid
Analysis Batch: 28497

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 28503

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0998	0.09244		mg/Kg		93	70 - 130	3	35
Toluene	<0.00201	U	0.0998	0.09463		mg/Kg		95	70 - 130	5	35
Ethylbenzene	<0.00201	U	0.0998	0.1005		mg/Kg		101	70 - 130	10	35
m-Xylene & p-Xylene	<0.00402	U	0.200	0.2030		mg/Kg		102	70 - 130	9	35
o-Xylene	<0.00201	U	0.0998	0.1012		mg/Kg		101	70 - 130	7	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*

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

Lab Sample ID: MB 880-28434/1-A
Matrix: Solid
Analysis Batch: 28413

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 28434

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		06/27/22 09:56	06/27/22 11:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		06/27/22 09:56	06/27/22 11:13	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		06/27/22 09:56	06/27/22 11:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*06/27/22 09:56*	*06/27/22 11:13*	*1*
o-Terphenyl	*132*	*S1+*	*70 - 130*	*06/27/22 09:56*	*06/27/22 11:13*	*1*

Lab Sample ID: LCS 880-28434/2-A
Matrix: Solid
Analysis Batch: 28413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28434

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	734.8		mg/Kg		73	70 - 130
Diesel Range Organics (Over C10-C28)			1000	941.1		mg/Kg		94	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: PLU 213 BATTERY

Job ID: 890-2458-1
SDG: 03E1558014

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

Lab Sample ID: LCS 880-28434/2-A
Matrix: Solid
Analysis Batch: 28413

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 28434

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	102		70 - 130

Lab Sample ID: LCSD 880-28434/3-A
Matrix: Solid
Analysis Batch: 28413

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 28434

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	729.1		mg/Kg		73	70 - 130	1	20
Diesel Range Organics (Over C10-C28)			1000	937.8		mg/Kg		94	70 - 130	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	92		70 - 130
o-Terphenyl	102		70 - 130

Lab Sample ID: 890-2457-A-1-C MS
Matrix: Solid
Analysis Batch: 28413

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 28434

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	996	1028		mg/Kg		103	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	996	882.3		mg/Kg		89	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	110		70 - 130
o-Terphenyl	111		70 - 130

Lab Sample ID: 890-2457-A-1-D MSD
Matrix: Solid
Analysis Batch: 28413

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 28434

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	996	836.1	F2	mg/Kg		84	70 - 130	21	20
Diesel Range Organics (Over C10-C28)	<49.9	U	996	833.7		mg/Kg		84	70 - 130	6	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	98		70 - 130
o-Terphenyl	102		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: PLU 213 BATTERY

Job ID: 890-2458-1
SDG: 03E1558014

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-28390/1-A
Matrix: Solid
Analysis Batch: 28775

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			07/01/22 22:54	1

Lab Sample ID: LCS 880-28390/2-A
Matrix: Solid
Analysis Batch: 28775

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	274.0		mg/Kg		110	90 - 110		

Lab Sample ID: LCSD 880-28390/3-A
Matrix: Solid
Analysis Batch: 28775

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	274.2		mg/Kg		110	90 - 110	0	20

Lab Sample ID: 880-16297-A-3-E MS
Matrix: Solid
Analysis Batch: 28775

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	284		248	537.4		mg/Kg		102	90 - 110		

Lab Sample ID: 880-16297-A-3-F MSD
Matrix: Solid
Analysis Batch: 28775

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	284		248	536.5		mg/Kg		102	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: PLU 213 BATTERY

Job ID: 890-2458-1
SDG: 03E1558014

GC VOA

Analysis Batch: 28497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2458-1	FS02	Total/NA	Solid	8021B	28503
MB 880-28503/5-A	Method Blank	Total/NA	Solid	8021B	28503
LCS 880-28503/1-A	Lab Control Sample	Total/NA	Solid	8021B	28503
LCSD 880-28503/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	28503
890-2464-A-11-I MS	Matrix Spike	Total/NA	Solid	8021B	28503
890-2464-A-11-J MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	28503

Prep Batch: 28503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2458-1	FS02	Total/NA	Solid	5035	
MB 880-28503/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-28503/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-28503/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2464-A-11-I MS	Matrix Spike	Total/NA	Solid	5035	
890-2464-A-11-J MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 28618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2458-1	FS02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 28413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2458-1	FS02	Total/NA	Solid	8015B NM	28434
MB 880-28434/1-A	Method Blank	Total/NA	Solid	8015B NM	28434
LCS 880-28434/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	28434
LCSD 880-28434/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	28434
890-2457-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	28434
890-2457-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	28434

Prep Batch: 28434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2458-1	FS02	Total/NA	Solid	8015NM Prep	
MB 880-28434/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-28434/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-28434/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2457-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2457-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 28543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2458-1	FS02	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 28390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2458-1	FS02	Soluble	Solid	DI Leach	
MB 880-28390/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-28390/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-28390/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: PLU 213 BATTERY

Job ID: 890-2458-1
SDG: 03E1558014

HPLC/IC (Continued)

Leach Batch: 28390 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-16297-A-3-E MS	Matrix Spike	Soluble	Solid	DI Leach	
880-16297-A-3-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 28775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2458-1	FS02	Soluble	Solid	300.0	28390
MB 880-28390/1-A	Method Blank	Soluble	Solid	300.0	28390
LCS 880-28390/2-A	Lab Control Sample	Soluble	Solid	300.0	28390
LCSD 880-28390/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	28390
880-16297-A-3-E MS	Matrix Spike	Soluble	Solid	300.0	28390
880-16297-A-3-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	28390

Lab Chronicle

Client: Ensolum
Project/Site: PLU 213 BATTERY

Job ID: 890-2458-1
SDG: 03E1558014

Client Sample ID: FS02

Date Collected: 06/24/22 09:30
Date Received: 06/24/22 13:38

Lab Sample ID: 890-2458-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	28503	06/28/22 08:42	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	28497	06/28/22 19:16	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			28618	06/29/22 09:18	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			28543	06/28/22 12:53	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	28434	06/27/22 09:56	DM	XEN MID
Total/NA	Analysis	8015B NM		1			28413	06/27/22 14:23	SM	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	28390	06/25/22 15:16	SMC	XEN MID
Soluble	Analysis	300.0		5			28775	07/02/22 03:30	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU 213 BATTERY

Job ID: 890-2458-1
SDG: 03E1558014

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	T104704400-22-23	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: PLU 213 BATTERY

Job ID: 890-2458-1
SDG: 03E1558014

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: PLU 213 BATTERY

Job ID: 890-2458-1
SDG: 03E1558014

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2458-1	FS02	Solid	06/24/22 09:30	06/24/22 13:38	0.75

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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:	Kalei Jennings	Bill to: (if different)	Adrian Baker
Company Name:	Ensolum LLC.	Company Name:	XTO Energy, Inc.
Address:		Address:	3104 E. Green Street
City, State ZIP:		City, State ZIP:	Carlsbad, NM 88220
Phone:	817.683.2503	Email:	kjennings@ensolum.com

Work Order Comments

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

Project Name:	PLU 213 Battery	Turn Around	
Project Number:	03E1558014	☑ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:	Conner Shore	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	TWN-007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	2.2
Total Containers:		Corrected Temperature:	2.0

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
FS02	S	06.24.22	930	0.75'	G	1		x	x	x

890-2458 Chain of Custody

Preservative Codes

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

Sample Comments

Incident ID: NAPP2205439646
Cost Center:1081131001
AFE:

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO_2 Na Sr Tl Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed **TCLP / SPLP 6010**: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Cole Cerf	6.24.22 1338			
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2458-1
SDG Number: 03E1558014

Login Number: 2458
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2458-1
SDG Number: 03E1558014

Login Number: 2458
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 06/27/22 09:26 AM

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

ENSOLUM

APPENDIX C

Lithologic / Soil Sampling Log

ENSOLUM

Sample Name: BH01

Site Name: PLU 231

Incident Number:

Job Number: PLU213(03E155801 4)

LITHOLOGIC / SOIL SAMPLING LOG

Logged By: CS | Method: AIR ROTARY

Coordinates: 32.209634°, -103.914327° | Hole Diameter: | Total Depth: 120'

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

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
						10'	SP-SM	SAND RED BROWN FINE GRAINED WELL GRADED W/ CCHE GRAINS, NO STAIN, NO ODOR
						20'		SAME AS ABOVE
						30'		SAME AS ABOVE, SLIGHTLY LIGHTER IN COLOR (MORE TAN)
						40'		SAND RED BROWN FINE GRAINED, WELL GRADED W/ BIG CALICHE CLASTS, NO STAIN, NO ODOR
						50'		SAND DARK REDDISH BROWN, MEDIUM-FINE GRAINED, POORLY GRADED, NO CALICHE, NO STAIN NO ODOR
						60'		SAND DARK REDDISH BROWN, MEDIUM-FINE GRAINED WELL ~~SORTED~~ GRADED W/ LARGE ROUNDED CALICHE + BROWN ROCKS NO STAIN, NO ODOR
						70'		SAND DARK RED BROWN, MEDIUM-FINE GRAINED POORLY GRADED W SMALL CALICHE GRAINS PRESENT NO STAIN, NO ODOR
						80'		SAND DARK REDDISH BROWN, C-M grained POORLY GRADED W/ NO CALICHE PRESENT, NO STAIN NO ODOR, EASILY BREAKABLE MUD CLASTS
						90'		SAME AS ABOVE
						100'		SAME AS ABOVE
						110'		SAA, NO MUD CLASTS PRESENT
						120'		SAME AS ABOVE TD: 120'

ENSOLUM

APPENDIX D

NMOCD Notifications

From:	Hamlet, Robert, EMNRD
To:	Collins, Melanie
Cc:	DelawareSpills /SM; Aimee Cole; Ben Belill; Tacoma Morrissey; Kalei Jennings; Bratcher, Mike, EMNRD; Nobui, Jennifer, EMNRD; Harimon, Jocelyn, EMNRD
Subject:	(Extension Denied) - XTO - PLU 213 Tank Battery (Incident Number NAPP2205439646)
Date:	Friday, July 8, 2022 10:04:29 AM
Attachments:	image003.png

[**EXTERNAL EMAIL**]

RE: Incident # **NAPP2205439646**

Melanie,

An extension for this release has already been granted. Your request for another extension is **denied**. Include this e-mail correspondence in the remediation and/or closure report.

Robert Hamlet ● Environmental Specialist - Advanced
Environmental Bureau
EMNRD - Oil Conservation Division
811 S. First Street | Artesia, NM 88210
575.909.0302 | robert.hamlet@state.nm.us
http://www.emnrd.state.nm.us/OCD/

From: Collins, Melanie <melanie.collins@exxonmobil.com>
Sent: Friday, July 8, 2022 8:56 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>
Cc: DelawareSpills /SM <DelawareSpills@exxonmobil.com>; acole@ensolum.com; bbelill@ensolum.com; Tacoma Morrissey <tmorrissey@ensolum.com>; Kalei Jennings <kjennings@ensolum.com>
Subject: [EXTERNAL] XTO Extension Request - PLU 213 Tank Battery (Incident Number NAPP2205439646)

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

All,

PLU 213 Tank Battery (Incident Number NAPP2205439646)

XTO is requesting an extension for the current deadline of July 12, 2022 for submitting a remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC at the PLU 213 Tank Battery (Incident Number NAPP2205439646). The release occurred on February 12, 2022 in an area surrounded by active production equipment. Initial assessment of the release has been completed and excavation of impacted soil was completed last week. Laboratory analytical results are pending. In addition, XTO intends to drill a depth to water boring to confirm the closure criteria at the Site. In order to allow time to schedule with a driller, drill the depth to water boring, and submit a remediation work plan or closure report, XTO request a 90-day extension of the deadline until October 10, 2022.

Thank you,

Melanie Collins

XTO ENERGY

Environmental Technician

melanie.collins@exxonmobil.com

432-556-3756

From: Green, Garrett J
To: Tacoma Morrissey; Kalei Jennings; Ben Belill
Cc: Collins, Melanie
Subject: FW: The Oil Conservation Division (OCD) has approved the application, Application ID: 124764
Date: Monday, August 29, 2022 12:46:09 PM

[**EXTERNAL EMAIL**]

2/12/22 PLU 213

From: OCDOnline@state.nm.us [mailto:OCDOnline@state.nm.us]
Sent: Monday, August 29, 2022 11:36 AM
To: Green, Garrett J <garrett.green@exxonmobil.com>
Subject: The Oil Conservation Division (OCD) has approved the application, Application ID: 124764

External Email - Think Before You Click

To whom it may concern (c/o Garrett Green for XTO ENERGY, INC),

The OCD has approved the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2205439646, with the following conditions:

- **Remediation Plan Approved.**

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

Thank you,
Jennifer Nobui
Environmental Specialist-Advanced
505-470-3407
Jennifer.Nobui@state.nm.us

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

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 161235

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 161235
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved. Please implement 19.15.29.13 NMAC when completing P&A.	1/4/2023