State of New Mexico
Oil Conservation Division

Incident ID	nAPP2233349315
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: __02/14/2023_____

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

OCD Only

Received by: Jocelyn Harimon Date: 02/14/2023

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

Closure Approved by: Robert Hamlet Date: 6/15/2023

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

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	NAPP2233349315
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.18273 Longitude -103.88090

(NAD 83 in decimal degrees to 5 decimal places)

Site Name PLU Pierce Canyon 28 Battery	Site Type Tank Battery
Date Release Discovered 11/16/2022	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
P	28	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) 0.19	Volume Recovered (bbls) 0.00
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	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 valve on the two phase separator malfunctioned, sending all fluid to the sales scrubber. The sales scrubber also experienced a dump malfunction, sending fluid to the flare, which sprayed onto pad surface and ignited. Fire extinguished itself with no injuries or damage to equipment. A third-party contractor has been retained for remediation purposes.

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2233349315
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? A release that results in a fire or is the result of a fire.

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?

Yes, by Bryan Foust to ocd.enviro@emnrd.nm.gov'; 'Bratcher, Michael, EMNRD'; 'Hamlet, Robert, EMNRD'; 'Harimon, Jocelyn, EMNRD' on 11/16/22 via email.

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.

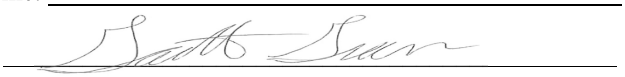
If all the actions described above have not been undertaken, explain why:

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: Garrett Green Title: SSHE Coordinator

Signature:  Date: 11/29/2022

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

OCD Only

Received by: Jocelyn Harimon Date: 11/29/2022

Location:	PLU Pierce Canyon 28 Battery	
Spill Date:	11/16/2022	
Area 1		
Approximate Area =	3441.00	sq. ft.
Average Saturation (or depth) of spill =	0.13	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Crude Oil =	0.19	bbls
Total Produced Water =	0.00	bbls
TOTAL VOLUME OF LEAK		
Total Crude Oil =	**0.19**	**bbls**
Total Produced Water =	**0.00**	**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

Action 162209

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 162209
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	11/29/2022

Incident ID	nAPP2233349315
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?	>110 (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	nAPP2233349315
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: ____02/14/2023_____

email: _garrett.green@exxonmobil.com_____ Telephone: ____575-200-0729_____

OCD Only

Received by: ___Jocelyn Harimon_____ Date: __02/14/2023____

Incident ID	nAPP2233349315
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: __02/14/2023_____

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

OCD Only

Received by: ___Jocelyn Harimon_____ Date: ___02/14/2023___

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

ENSOLUM

February 14, 2023

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

Re: Closure Request
PLU Pierce Canyon 28 Battery
Incident Number nAPP2233349315
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 site assessment and soil sampling activities performed at the PLU Pierce Canyon 28 Battery (Site). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil resulting from a small crude oil flare fire at the Site. Based on the site assessment activities and analytical results from the soil sampling event, XTO is submitting this Closure Request for Incident Number nAPP2233349315.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in in Unit P, Section 28, Township 24 South, Range 30 East, in Eddy County, New Mexico (32.16790°, -103.89590°) and is associated with oil and gas exploration and production operations on Federal Land operated by the Bureau of Land Management.

On November 16, 2022, the dump valve on the two-phase separator malfunctioned sending all fluid to the sales scrubber, which subsequently dumped fluid to the flare and resulted in approximately 0.19 barrels (bbls) of crude oil spraying from the flare and igniting. The fire extinguished on the ground without damaging equipment. There were no fluids to recover. XTO reported the release immediately via email to the New Mexico Oil Conservation Division (NMOCD) on November 16, 2022 and submitted a Release Notification Form C-141 (Form C-141) on November 29, 2022. The release was assigned Incident Number nAPP2233349315.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29, Section 12 (19.15.29.12) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. Potential site receptors are identified on Figure 1.

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The closest permitted groundwater well with depth to groundwater data is a soil boring (C-4474) permitted by the New Mexico Office of the State Engineer (NMOSE), located approximately 0.24 miles southeast of the Site. The groundwater well has a reported depth to groundwater greater than 110 feet bgs and a total depth of 110 feet bgs. All wells used for depth

to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a seasonal dry wash, located approximately 765 feet north of the Site. A potential seasonal dry wash located approximately 190 feet north of the Site was previously surveyed on July 27, 2020 and determined to be non-significant. Details of the watercourse survey can be found in the approved *Closure Request* for Incident Numbers NRM1931858285 and NCE2002742193 on pages 22 through 24. The Closure Request was submitted to the NMOCD on December 23, 2020 and approved on March 10, 2021.

The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (low potential karst designation area). Site receptors are identified on Figure 1.

Based on the results of the Site Characterization, the following NMOCD Table 1 Closure Criteria (Closure Criteria) apply:

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

SITE ASSESSMENT ACTIVITIES

On January 23, 2023, site assessment activities were conducted to evaluate the release based on information provided on the Form C-141 and visual observations. No visible indications of the release or fire were observed. Eleven delineation soil samples (SS01 through SS11) were collected beneath the flare stack and within and around the sprayed release extent at a depth of 0.5 feet bgs to assess for the presence or absence of impacted soil. The delineation soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride using Hach® chloride QuanTab® test strips. The soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was conducted during the Site visit. A photograghic log is included in Appendix B.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following contaminants of concern (COC): BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-GRO, TPH-DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for delineation soil samples SS01 through SS11 indicated that COC concentrations were compliant with the Site Closure Criteria and the most stringent Table I Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical

reports are included as Appendix C. Sampling notifications made to NMOCD are included in Appendix D.

CLOSURE REQUEST

Site assessment activities were conducted at the Site to assess for the presence or absence of impacted soil resulting from the November 16, 2022, crude oil flare fire. Laboratory analytical results for soil samples collected within and around the release extent indicated all COC concentrations were compliant with the Site Closure Criteria and compliant with the most stringent Table I Closure Criteria. Additionally, no visible indications of the release or fire were observed.

Based on soil sample laboratory analytical results compliant with the most stringent Table I Closure Criteria, no impacted soil was identified and as a result, no excavation appeared warranted related to the crude oil fire. As such, XTO respectfully requests closure for Incident Number nAPP2233349315.

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

Sincerely,
Ensolum, LLC

Tacoma Morrissey, M.S.
Senior Geologist

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

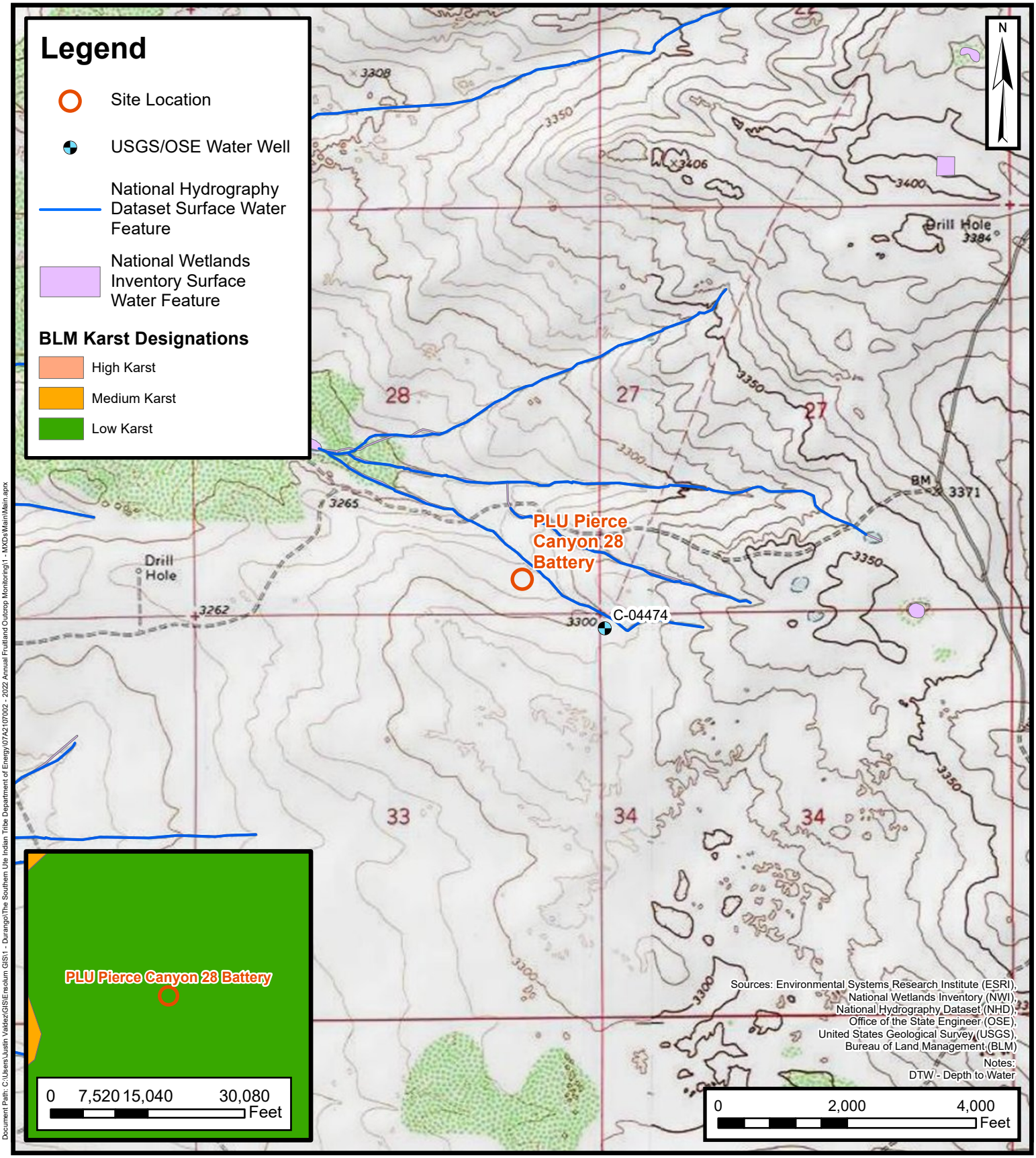
cc: Shelby Pennington, XTO
Garrett Green, XTO
BLM

Appendices:

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

ENSOLUM

FIGURES



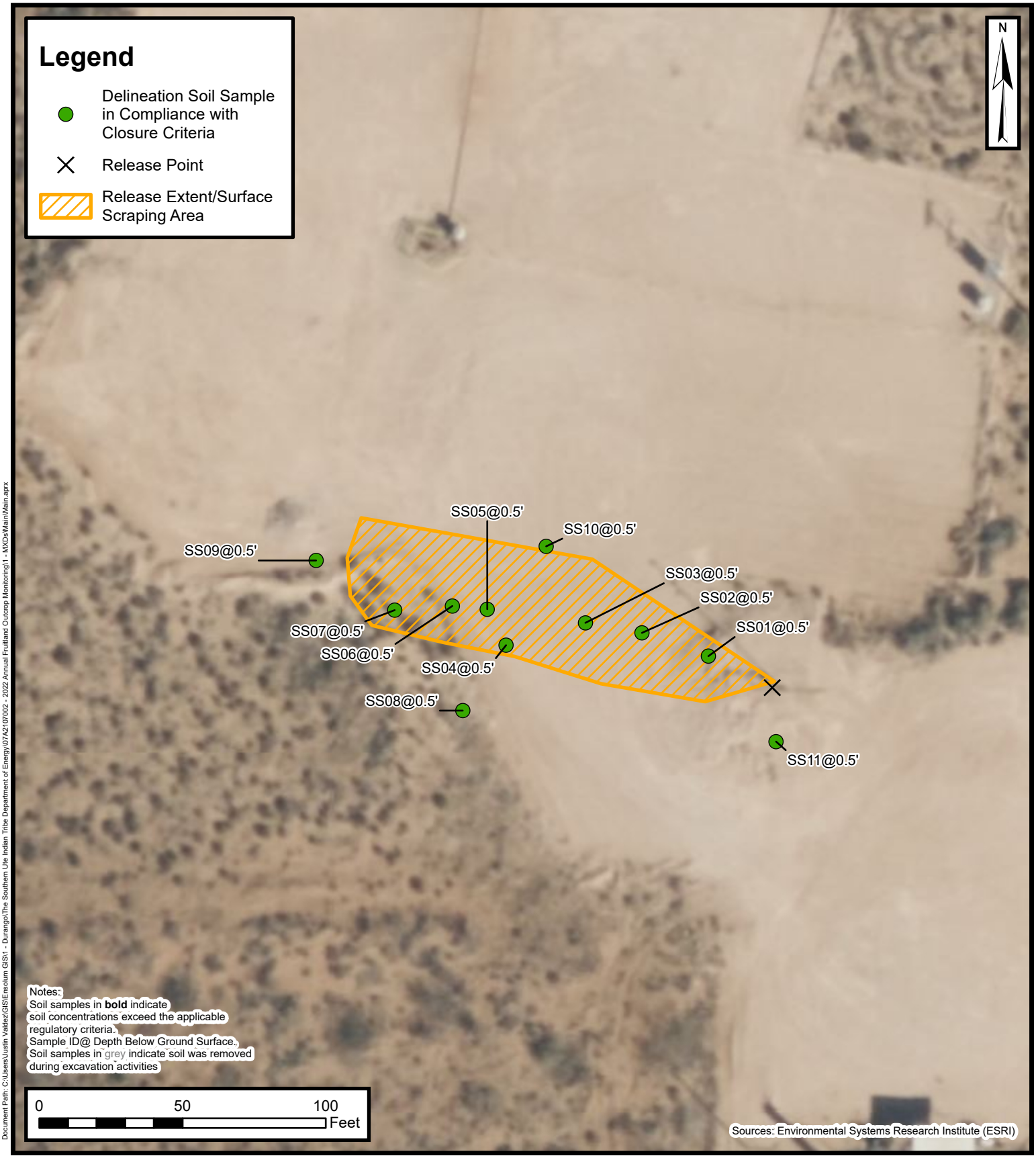
Document Path: C:\Users\Justin Valdez\GIS\Ensolum GIS\1 - Durango\The Southern Ute Indian Tribe Department of Energy\07A2107002 - 2022 Annual Fruitland Outcrop Monitoring\1 - MXDs\Main\Main.aprx

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

PLU Pierce Canyon 28 Battery
XTO Energy, Inc
Unit P Sec 28 T24S R30E
Eddy County, New Mexico
Incident Number: nAPP2233349315

FIGURE
1



Document Path: C:\Users\Justin Valdez\GIS\Ensolum GIS\1 - Durango\The Southern Ute Indian Tribe Department of Energy\07A21\07002 - 2022 Annual Fruitland Outcrop Monitoring\1 - MXDs\Main\Main.aprx

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Delineation Soil Sample Locations

PLU Pierce Canyon 28 Battery
XTO Energy, Inc
Unit P Sec 28 T24S R30E
Eddy County, New Mexico
Incident Number: nAPP2233349315

FIGURE
2

ENSOLUM

TABLES

ENSOLUM

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
PLU Pierce Canyon 28 Battery
XTO Energy, Inc
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			**10**	**50**	**NE**	**NE**	**NE**	**1,000**	**2,500**	**20,000**
Delineation Soil Samples										
SS01	01/23/2023	0.5	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	9.73
SS02	01/23/2023	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	12.5
SS03	01/23/2023	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	<4.97
SS04	01/23/2023	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	13.9
SS05	01/23/2023	0.5	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	5.31
SS06	01/23/2023	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	<5.01
SS07	01/23/2023	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	<5.00
SS08	01/23/2023	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	<5.02
SS09	01/23/2023	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	14.1
SS10	01/23/2023	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	12.1
SS11	01/23/2023	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	10.5

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria or reclamation requirement where applicable.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

ENSOLUM

APPENDIX A

Referenced Well Records

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD1 (BH-01)	n/a	C-4474

WELL OWNER NAME(S)	PHONE (OPTIONAL)
XTO Energy (Kyle Littrell)	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
6401 Holiday Hill Dr.	Midland	TX	79707

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32°	10'	51.44"	N
	LONGITUDE	-103°	52'	38.65"	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

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

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1249	Jackie D. Atkins	Atkins Engineering Associates, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
09/10/20	09/10/20	temporary well material	110	n/a

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT): n/a

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

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

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	48	±8.5	Boring- HSA	--	--	--	--
48	110	±4.5	Boring- Air Rotary	--	--	--	--

3. ANNULAR MATERIAL

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

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/17)

FILE NO. C-4474	POD NO. 1	TRN NO. 677410	
LOCATION 24S.30E.34.111		WELL TAG ID NO. —	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	30	30	Sand, Medium , poorly-graded with silt, no plasticity, Red-Brown	Y ✓ N	
30	45	15	Clayey Sand, Medium, low plasticity, Dark Red-Brown	Y ✓ N	
45	50	5	Sand, Medium , poorly-graded, compacted, no plasticity, Brown	Y ✓ N	
50	58	8	Caliche, well cemented with medium sand matrix. Brown	Y ✓ N	
58	73	15	Clayey Sand, Medium, Moderate plasticity, increasing clay, Brown	Y ✓ N	
73	78	5	Caliche, with Sandy clay layering, mod plasticity, poorly-grated sand, White	Y ✓ N	
78	83	5	Sand, Medium , poorly-graded, no plasticity, Light Brown	Y ✓ N	
83	88	5	Clayey Sand, Medium, Moderate plasticity, decreasing clay, Red Brown	Y ✓ N	
88	110	22	Sand, Fine , poorly-graded, no plasticity , Brown	Y ✓ N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER – SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

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

MISCELLANEOUS INFORMATION: Temporary well materials removed and the soil boring backfilled using drill cuttings from total depth to ten feet below ground surface, then hydrated bentonite chips from ten feet below ground surface to surface. Logs adapted from LTE on-site geologist.

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

Shane Eldridge

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

Jack Atkins — Jackie D. Atkins — 10/07/2020

SIGNATURE OF DRILLER / PRINT SIGNEE NAME — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO. C-4474	POD NO. 1	TRN NO. 677410	
LOCATION 24S.30E.34.111		WELL TAG ID NO. —	PAGE 2 OF 2

2020-10-05_C-4474POD1_OSE_Well Record and Log-forsign

Final Audit Report 2020-10-07

Created:	2020-10-07
By:	Lucas Middleton (lucas@atkinseng.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAEYXgwvt48YpaHuiUB0eJVri0E9M1MV9m

"2020-10-05_C-4474POD1_OSE_Well Record and Log-forsign" History

Document created by Lucas Middleton (lucas@atkinseng.com)
2020-10-07 - 4:31:15 PM GMT- IP address: 69.21.248.123

Document emailed to Jack Atkins (jack@atkinseng.com) for signature
2020-10-07 - 4:32:21 PM GMT

Email viewed by Jack Atkins (jack@atkinseng.com)
2020-10-07 - 4:34:37 PM GMT- IP address: 74.50.153.115

Document e-signed by Jack Atkins (jack@atkinseng.com)
Signature Date: 2020-10-07 - 4:36:23 PM GMT - Time Source: server- IP address: 74.50.153.115

Agreement completed.
2020-10-07 - 4:36:23 PM GMT

Adobe Sign

Atkins
ENGINEERING ASSOCIATES INC.
2904 W 2nd St.
Roswell, NM 88201
voice: 575.624.2420
fax: 575.624.2421
www.atkinseng.com

10/07/2020

DII-NMOSE
1900 W 2nd Street
Roswell, NM 88201

Hand Delivered to the DII Office of the State Engineer

Re: Well Record C-4474 Pod1

To whom it may concern:

Attached please find a well record and a plugging record, in duplicate, for a one (1) soil borings, C-4474 Pod1.

If you have any questions, please contact me at 575.499.9244 or lucas@atkinseng.com.

Sincerely,

Lucas Middleton

Enclosures: as noted above

ENSOLUM

APPENDIX B

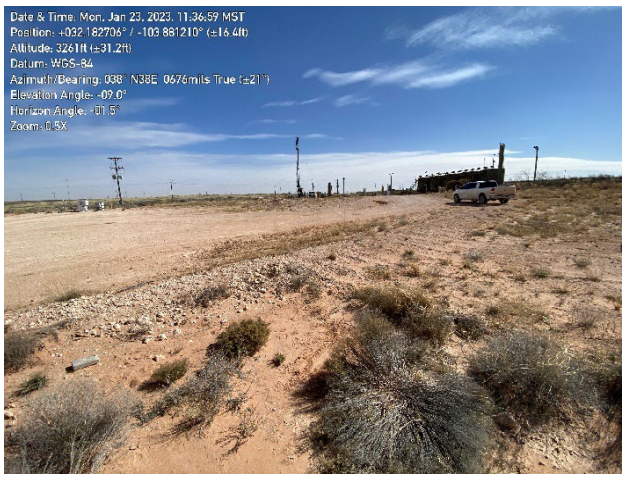
Photographic Log

ENSOLUM

Photographic Log
XTO Energy, Inc
PLU Pierce Canyon 28 Battery
nAPP2233349315

Photograph 1 Date: 1/9/2023
Description: Site assessment activities, flare stack.
View: Northwest

Photograph 2 Date: 1/23/2023
Description: Site assessment activities, release extent.
View: Northwest



Photograph 3 Date: 1/23/2023
Description: Site assessment activities, release extent.
View: Southeast

Photograph 4 Date: 1/23/2023
Description: Site assessment activities, release extent.
View: South

ENSOLUM

APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 1/26/2023 3:23:21 PM

JOB DESCRIPTION

PLU PC 28
SDG NUMBER 03C1558153

JOB NUMBER

890-3918-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

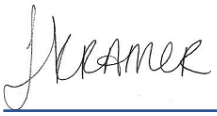
my EOL

Eurofins Carlsbad

Job Notes

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

Authorization



Generated
1/26/2023 3:23:21 PM

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

Client: Ensolum
Project/Site: PLU PC 28

Laboratory Job ID: 890-3918-1
SDG: 03C1558153

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

Job ID: 890-3918-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-3918-1

Receipt
The samples were received on 1/23/2023 1:28 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.6°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-3918-1), SS02 (890-3918-2), SS03 (890-3918-3), SS04 (890-3918-4), SS05 (890-3918-5), SS06 (890-3918-6), SS07 (890-3918-7), SS08 (890-3918-8), SS09 (890-3918-9), SS10 (890-3918-10) and SS11 (890-3918-11).

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 samples were outside control limits: SS08 (890-3918-8), (880-24038-A-1-F MS) and (880-24038-A-1-G MSD). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-44697 and analytical batch 880-44714 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (LCS 880-44697/2-A) and (880-24037-A-21-E MS). Evidence of matrix interferences is not obvious.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-44710 and analytical batch 880-44772 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

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

Client Sample Results

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

Client Sample ID: SS01

Lab Sample ID: 890-3918-1
Matrix: Solid
Date Collected: 01/23/23 10:20
Date Received: 01/23/23 13:28
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		01/24/23 09:38	01/24/23 14:13	1
Toluene	<0.00202	U	0.00202		mg/Kg		01/24/23 09:38	01/24/23 14:13	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		01/24/23 09:38	01/24/23 14:13	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		01/24/23 09:38	01/24/23 14:13	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		01/24/23 09:38	01/24/23 14:13	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		01/24/23 09:38	01/24/23 14:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*01/24/23 09:38*	*01/24/23 14:13*	*1*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*	*01/24/23 09:38*	*01/24/23 14:13*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404		mg/Kg			01/24/23 15:43	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/26/23 14:54	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/25/23 08:39	01/25/23 18:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/25/23 08:39	01/25/23 18:08	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/25/23 08:39	01/25/23 18:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*86*		*70 - 130*	*01/25/23 08:39*	*01/25/23 18:08*	*1*
o-Terphenyl	*85*		*70 - 130*	*01/25/23 08:39*	*01/25/23 18:08*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**9.73**		5.03		mg/Kg			01/25/23 22:12	1

Client Sample ID: SS02

Lab Sample ID: 890-3918-2
Matrix: Solid
Date Collected: 01/23/23 10:25
Date Received: 01/23/23 13:28
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/24/23 09:38	01/24/23 14:34	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/24/23 09:38	01/24/23 14:34	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/24/23 09:38	01/24/23 14:34	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/24/23 09:38	01/24/23 14:34	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/24/23 09:38	01/24/23 14:34	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/24/23 09:38	01/24/23 14:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*01/24/23 09:38*	*01/24/23 14:34*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

Client Sample ID: SS02

Date Collected: 01/23/23 10:25
Date Received: 01/23/23 13:28
Sample Depth: 0.5'

Lab Sample ID: 890-3918-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*01/24/23 09:38*	*01/24/23 14:34*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/24/23 15:43	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/26/23 14:54	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		01/25/23 08:39	01/25/23 18:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		01/25/23 08:39	01/25/23 18:31	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		01/25/23 08:39	01/25/23 18:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*01/25/23 08:39*	*01/25/23 18:31*	*1*
o-Terphenyl	*88*		*70 - 130*	*01/25/23 08:39*	*01/25/23 18:31*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**12.5**		5.00	mg/Kg			01/25/23 22:27	1

Client Sample ID: SS03

Date Collected: 01/23/23 10:30
Date Received: 01/23/23 13:28
Sample Depth: 0.5'

Lab Sample ID: 890-3918-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		01/24/23 09:38	01/24/23 14:54	1
Toluene	<0.00200	U	0.00200	mg/Kg		01/24/23 09:38	01/24/23 14:54	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		01/24/23 09:38	01/24/23 14:54	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		01/24/23 09:38	01/24/23 14:54	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		01/24/23 09:38	01/24/23 14:54	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		01/24/23 09:38	01/24/23 14:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*01/24/23 09:38*	*01/24/23 14:54*	*1*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*01/24/23 09:38*	*01/24/23 14:54*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			01/24/23 15:43	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			01/26/23 14:54	1

Client Sample Results

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

Client Sample ID: SS03

Lab Sample ID: 890-3918-3
Matrix: Solid
Date Collected: 01/23/23 10:30
Date Received: 01/23/23 13:28
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/25/23 08:39	01/25/23 18:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/25/23 08:39	01/25/23 18:53	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/25/23 08:39	01/25/23 18:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*83*		*70 - 130*	*01/25/23 08:39*	*01/25/23 18:53*	*1*
o-Terphenyl	*84*		*70 - 130*	*01/25/23 08:39*	*01/25/23 18:53*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.97	U	4.97		mg/Kg			01/25/23 22:32	1

Client Sample ID: SS04

Lab Sample ID: 890-3918-4
Matrix: Solid
Date Collected: 01/23/23 10:35
Date Received: 01/23/23 13:28
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/24/23 09:38	01/24/23 15:15	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/24/23 09:38	01/24/23 15:15	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/24/23 09:38	01/24/23 15:15	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/24/23 09:38	01/24/23 15:15	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/24/23 09:38	01/24/23 15:15	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/24/23 09:38	01/24/23 15:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*01/24/23 09:38*	*01/24/23 15:15*	*1*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*01/24/23 09:38*	*01/24/23 15:15*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/25/23 14:05	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/26/23 14:54	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/25/23 08:39	01/25/23 19:14	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/25/23 08:39	01/25/23 19:14	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/25/23 08:39	01/25/23 19:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*01/25/23 08:39*	*01/25/23 19:14*	*1*
o-Terphenyl	*106*		*70 - 130*	*01/25/23 08:39*	*01/25/23 19:14*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

Client Sample ID: SS04

Lab Sample ID: 890-3918-4
Matrix: Solid
Date Collected: 01/23/23 10:35
Date Received: 01/23/23 13:28
Sample Depth: 0.5'

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13.9		5.05		mg/Kg			01/25/23 22:37	1

Client Sample ID: SS05

Lab Sample ID: 890-3918-5
Matrix: Solid
Date Collected: 01/23/23 10:40
Date Received: 01/23/23 13:28
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		01/24/23 09:38	01/24/23 15:36	1
Toluene	<0.00198	U	0.00198		mg/Kg		01/24/23 09:38	01/24/23 15:36	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		01/24/23 09:38	01/24/23 15:36	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		01/24/23 09:38	01/24/23 15:36	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		01/24/23 09:38	01/24/23 15:36	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		01/24/23 09:38	01/24/23 15:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*01/24/23 09:38*	*01/24/23 15:36*	*1*
1,4-Difluorobenzene (Surr)	*119*		*70 - 130*	*01/24/23 09:38*	*01/24/23 15:36*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			01/25/23 14:05	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/26/23 14:54	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/25/23 08:39	01/25/23 19:37	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/25/23 08:39	01/25/23 19:37	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/25/23 08:39	01/25/23 19:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*01/25/23 08:39*	*01/25/23 19:37*	*1*
o-Terphenyl	*84*		*70 - 130*	*01/25/23 08:39*	*01/25/23 19:37*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.31		4.99		mg/Kg			01/25/23 22:41	1

Client Sample Results

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

Client Sample ID: SS06

Lab Sample ID: 890-3918-6
Matrix: Solid
Date Collected: 01/23/23 10:45
Date Received: 01/23/23 13:28
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		01/24/23 09:38	01/24/23 15:56	1
Toluene	<0.00201	U	0.00201		mg/Kg		01/24/23 09:38	01/24/23 15:56	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		01/24/23 09:38	01/24/23 15:56	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		01/24/23 09:38	01/24/23 15:56	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		01/24/23 09:38	01/24/23 15:56	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		01/24/23 09:38	01/24/23 15:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*01/24/23 09:38*	*01/24/23 15:56*	*1*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*	*01/24/23 09:38*	*01/24/23 15:56*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			01/25/23 14:05	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/26/23 14:54	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/25/23 08:39	01/25/23 20:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/25/23 08:39	01/25/23 20:01	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/25/23 08:39	01/25/23 20:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*01/25/23 08:39*	*01/25/23 20:01*	*1*
o-Terphenyl	*93*		*70 - 130*	*01/25/23 08:39*	*01/25/23 20:01*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.01	U	5.01		mg/Kg			01/25/23 22:56	1

Client Sample ID: SS07

Lab Sample ID: 890-3918-7
Matrix: Solid
Date Collected: 01/23/23 10:50
Date Received: 01/23/23 13:28
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/24/23 09:38	01/24/23 18:48	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/24/23 09:38	01/24/23 18:48	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/24/23 09:38	01/24/23 18:48	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/24/23 09:38	01/24/23 18:48	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/24/23 09:38	01/24/23 18:48	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/24/23 09:38	01/24/23 18:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*01/24/23 09:38*	*01/24/23 18:48*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

Client Sample ID: SS07

Lab Sample ID: 890-3918-7
Matrix: Solid
Date Collected: 01/23/23 10:50
Date Received: 01/23/23 13:28
Sample Depth: 0.5'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*116*		*70 - 130*	*01/24/23 09:38*	*01/24/23 18:48*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/25/23 14:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			01/26/23 14:54	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		01/25/23 08:39	01/25/23 20:26	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		01/25/23 08:39	01/25/23 20:26	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		01/25/23 08:39	01/25/23 20:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*01/25/23 08:39*	*01/25/23 20:26*	*1*
o-Terphenyl	*81*		*70 - 130*	*01/25/23 08:39*	*01/25/23 20:26*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			01/25/23 23:01	1

Client Sample ID: SS08

Lab Sample ID: 890-3918-8
Matrix: Solid
Date Collected: 01/23/23 10:55
Date Received: 01/23/23 13:28
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		01/24/23 09:38	01/24/23 19:09	1
Toluene	<0.00199	U	0.00199	mg/Kg		01/24/23 09:38	01/24/23 19:09	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		01/24/23 09:38	01/24/23 19:09	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		01/24/23 09:38	01/24/23 19:09	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		01/24/23 09:38	01/24/23 19:09	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		01/24/23 09:38	01/24/23 19:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*01/24/23 09:38*	*01/24/23 19:09*	*1*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*	*01/24/23 09:38*	*01/24/23 19:09*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			01/25/23 14:05	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			01/26/23 14:54	1

Client Sample Results

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

Client Sample ID: SS08

Lab Sample ID: 890-3918-8
Matrix: Solid
Date Collected: 01/23/23 10:55
Date Received: 01/23/23 13:28
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/25/23 08:39	01/25/23 20:51	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/25/23 08:39	01/25/23 20:51	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/25/23 08:39	01/25/23 20:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*64*	*S1-*	*70 - 130*	*01/25/23 08:39*	*01/25/23 20:51*	*1*
o-Terphenyl	*64*	*S1-*	*70 - 130*	*01/25/23 08:39*	*01/25/23 20:51*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.02	U	5.02		mg/Kg			01/25/23 23:06	1

Client Sample ID: SS09

Lab Sample ID: 890-3918-9
Matrix: Solid
Date Collected: 01/23/23 11:00
Date Received: 01/23/23 13:28
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/24/23 09:38	01/24/23 19:29	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/24/23 09:38	01/24/23 19:29	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/24/23 09:38	01/24/23 19:29	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		01/24/23 09:38	01/24/23 19:29	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/24/23 09:38	01/24/23 19:29	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		01/24/23 09:38	01/24/23 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*01/24/23 09:38*	*01/24/23 19:29*	*1*
1,4-Difluorobenzene (Surr)	*119*		*70 - 130*	*01/24/23 09:38*	*01/24/23 19:29*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			01/25/23 14:05	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/26/23 14:54	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/25/23 08:39	01/25/23 21:19	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/25/23 08:39	01/25/23 21:19	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/25/23 08:39	01/25/23 21:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*01/25/23 08:39*	*01/25/23 21:19*	*1*
o-Terphenyl	*84*		*70 - 130*	*01/25/23 08:39*	*01/25/23 21:19*	*1*

Client Sample Results

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

Client Sample ID: SS09

Lab Sample ID: 890-3918-9
Matrix: Solid
Date Collected: 01/23/23 11:00
Date Received: 01/23/23 13:28
Sample Depth: 0.5'

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14.1		5.01		mg/Kg			01/25/23 23:11	1

Client Sample ID: SS10

Lab Sample ID: 890-3918-10
Matrix: Solid
Date Collected: 01/23/23 11:05
Date Received: 01/23/23 13:28
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/24/23 09:38	01/24/23 19:50	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/24/23 09:38	01/24/23 19:50	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/24/23 09:38	01/24/23 19:50	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/24/23 09:38	01/24/23 19:50	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/24/23 09:38	01/24/23 19:50	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/24/23 09:38	01/24/23 19:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*01/24/23 09:38*	*01/24/23 19:50*	*1*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*	*01/24/23 09:38*	*01/24/23 19:50*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/25/23 14:05	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			01/26/23 14:54	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		01/25/23 08:39	01/25/23 21:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		01/25/23 08:39	01/25/23 21:42	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		01/25/23 08:39	01/25/23 21:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*88*		*70 - 130*	*01/25/23 08:39*	*01/25/23 21:42*	*1*
o-Terphenyl	*89*		*70 - 130*	*01/25/23 08:39*	*01/25/23 21:42*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12.1		5.00		mg/Kg			01/25/23 23:15	1

Client Sample Results

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

Client Sample ID: SS11

Date Collected: 01/23/23 11:10
Date Received: 01/23/23 13:28
Sample Depth: 0.5'

Lab Sample ID: 890-3918-11

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		01/24/23 09:38	01/24/23 20:11	1
Toluene	<0.00199	U	0.00199		mg/Kg		01/24/23 09:38	01/24/23 20:11	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		01/24/23 09:38	01/24/23 20:11	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		01/24/23 09:38	01/24/23 20:11	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		01/24/23 09:38	01/24/23 20:11	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		01/24/23 09:38	01/24/23 20:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*01/24/23 09:38*	*01/24/23 20:11*	*1*
1,4-Difluorobenzene (Surr)	*119*		*70 - 130*	*01/24/23 09:38*	*01/24/23 20:11*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			01/25/23 14:05	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			01/26/23 15:15	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/25/23 08:41	01/25/23 16:38	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/25/23 08:41	01/25/23 16:38	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/25/23 08:41	01/25/23 16:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*01/25/23 08:41*	*01/25/23 16:38*	*1*
o-Terphenyl	*102*		*70 - 130*	*01/25/23 08:41*	*01/25/23 16:38*	*1*

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**10.5**	**F1**	5.00		mg/Kg			01/25/23 23:20	1

Surrogate Summary

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-23973-A-12-C MS	Matrix Spike	98	112
880-23973-A-12-D MSD	Matrix Spike Duplicate	98	114
890-3918-1	SS01	104	117
890-3918-2	SS02	104	116
890-3918-3	SS03	104	116
890-3918-4	SS04	105	116
890-3918-5	SS05	103	119
890-3918-6	SS06	106	114
890-3918-7	SS07	96	116
890-3918-8	SS08	101	113
890-3918-9	SS09	107	119
890-3918-10	SS10	104	118
890-3918-11	SS11	105	119
LCS 880-44615/1-A	Lab Control Sample	97	113
LCSD 880-44615/2-A	Lab Control Sample Dup	98	117
MB 880-44615/5-A	Method Blank	95	110

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
880-24037-A-21-E MS	Matrix Spike	77	68 S1-
880-24037-A-21-F MSD	Matrix Spike Duplicate	93	79
880-24038-A-1-F MS	Matrix Spike	79	68 S1-
880-24038-A-1-G MSD	Matrix Spike Duplicate	75	64 S1-
890-3918-1	SS01	86	85
890-3918-2	SS02	87	88
890-3918-3	SS03	83	84
890-3918-4	SS04	102	106
890-3918-5	SS05	85	84
890-3918-6	SS06	90	93
890-3918-7	SS07	80	81
890-3918-8	SS08	64 S1-	64 S1-
890-3918-9	SS09	80	84
890-3918-10	SS10	88	89
890-3918-11	SS11	107	102
LCS 880-44696/2-A	Lab Control Sample	95	93
LCS 880-44697/2-A	Lab Control Sample	137 S1+	134 S1+
LCSD 880-44696/3-A	Lab Control Sample Dup	90	93
LCSD 880-44697/3-A	Lab Control Sample Dup	117	110
MB 880-44696/1-A	Method Blank	100	98
MB 880-44697/1-A	Method Blank	118	115

Surrogate Legend

1CO = 1-Chlorooctane

Surrogate Summary

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-44615/5-A
Matrix: Solid
Analysis Batch: 44616

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44615

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		01/24/23 09:38	01/24/23 13:24	1
Toluene	<0.00200	U	0.00200		mg/Kg		01/24/23 09:38	01/24/23 13:24	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		01/24/23 09:38	01/24/23 13:24	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		01/24/23 09:38	01/24/23 13:24	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		01/24/23 09:38	01/24/23 13:24	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		01/24/23 09:38	01/24/23 13:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*01/24/23 09:38*	*01/24/23 13:24*	*1*
1,4-Difluorobenzene (Surr)	*110*		*70 - 130*	*01/24/23 09:38*	*01/24/23 13:24*	*1*

Lab Sample ID: LCS 880-44615/1-A
Matrix: Solid
Analysis Batch: 44616

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44615

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08435		mg/Kg		84	70 - 130		
Toluene			0.100	0.07727		mg/Kg		77	70 - 130		
Ethylbenzene			0.100	0.07408		mg/Kg		74	70 - 130		
m-Xylene & p-Xylene			0.200	0.1520		mg/Kg		76	70 - 130		
o-Xylene			0.100	0.07447		mg/Kg		74	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*
1,4-Difluorobenzene (Surr)	*113*		*70 - 130*

Lab Sample ID: LCSD 880-44615/2-A
Matrix: Solid
Analysis Batch: 44616

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 44615

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1100		mg/Kg		110	70 - 130	26	35
Toluene			0.100	0.09982		mg/Kg		100	70 - 130	25	35
Ethylbenzene			0.100	0.09762		mg/Kg		98	70 - 130	27	35
m-Xylene & p-Xylene			0.200	0.1983		mg/Kg		99	70 - 130	26	35
o-Xylene			0.100	0.09440		mg/Kg		94	70 - 130	24	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*117*		*70 - 130*

Lab Sample ID: 880-23973-A-12-C MS
Matrix: Solid
Analysis Batch: 44616

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 44615

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.101	0.1060		mg/Kg		105	70 - 130		
Toluene	<0.00201	U	0.101	0.09322		mg/Kg		92	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

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

Lab Sample ID: 880-23973-A-12-C MS
Matrix: Solid
Analysis Batch: 44616

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 44615

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.101	0.08971		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.202	0.1816		mg/Kg		90	70 - 130
o-Xylene	<0.00201	U	0.101	0.08803		mg/Kg		87	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*112*		*70 - 130*

Lab Sample ID: 880-23973-A-12-D MSD
Matrix: Solid
Analysis Batch: 44616

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 44615

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.09459		mg/Kg		96	70 - 130	11	35
Toluene	<0.00201	U	0.0990	0.08030		mg/Kg		81	70 - 130	15	35
Ethylbenzene	<0.00201	U	0.0990	0.07459		mg/Kg		75	70 - 130	18	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1505		mg/Kg		76	70 - 130	19	35
o-Xylene	<0.00201	U	0.0990	0.07487		mg/Kg		75	70 - 130	16	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*70 - 130*
1,4-Difluorobenzene (Surr)	*114*		*70 - 130*

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

Lab Sample ID: MB 880-44696/1-A
Matrix: Solid
Analysis Batch: 44706

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44696

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/25/23 08:39	01/25/23 10:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/25/23 08:39	01/25/23 10:43	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/25/23 08:39	01/25/23 10:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*100*		*70 - 130*	*01/25/23 08:39*	*01/25/23 10:43*	*1*
o-Terphenyl	*98*		*70 - 130*	*01/25/23 08:39*	*01/25/23 10:43*	*1*

Lab Sample ID: LCS 880-44696/2-A
Matrix: Solid
Analysis Batch: 44706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44696

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			999	812.5		mg/Kg		81	70 - 130
Diesel Range Organics (Over C10-C28)			999	951.2		mg/Kg		95	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

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

Lab Sample ID: LCS 880-44696/2-A
Matrix: Solid
Analysis Batch: 44706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44696

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: LCSD 880-44696/3-A
Matrix: Solid
Analysis Batch: 44706

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 44696

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	900.8		mg/Kg		90	70 - 130	10	20
Diesel Range Organics (Over C10-C28)			999	934.5		mg/Kg		94	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	90		70 - 130
o-Terphenyl	93		70 - 130

Lab Sample ID: 880-24038-A-1-F MS
Matrix: Solid
Analysis Batch: 44706

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 44696

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	909.8		mg/Kg		87	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1098		mg/Kg		108	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	79		70 - 130
o-Terphenyl	68	S1-	70 - 130

Lab Sample ID: 880-24038-A-1-G MSD
Matrix: Solid
Analysis Batch: 44706

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 44696

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	829.8		mg/Kg		79	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1020		mg/Kg		101	70 - 130	7	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	75		70 - 130
o-Terphenyl	64	S1-	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

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

Lab Sample ID: MB 880-44697/1-A
Matrix: Solid
Analysis Batch: 44714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 44697

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		01/25/23 08:41	01/25/23 11:30	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		01/25/23 08:41	01/25/23 11:30	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		01/25/23 08:41	01/25/23 11:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*118*		*70 - 130*	*01/25/23 08:41*	*01/25/23 11:30*	*1*
o-Terphenyl	*115*		*70 - 130*	*01/25/23 08:41*	*01/25/23 11:30*	*1*

Lab Sample ID: LCS 880-44697/2-A
Matrix: Solid
Analysis Batch: 44714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 44697

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			999	1044		mg/Kg		105	70 - 130		
Diesel Range Organics (Over C10-C28)			999	1077		mg/Kg		108	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*137*	*S1+*	*70 - 130*
o-Terphenyl	*134*	*S1+*	*70 - 130*

Lab Sample ID: LCSD 880-44697/3-A
Matrix: Solid
Analysis Batch: 44714

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 44697

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			999	1063		mg/Kg		106	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			999	1251		mg/Kg		125	70 - 130	15	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*117*		*70 - 130*
o-Terphenyl	*110*		*70 - 130*

Lab Sample ID: 880-24037-A-21-E MS
Matrix: Solid
Analysis Batch: 44714

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 44697

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 F2	1000	912.9		mg/Kg		87	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	974.6		mg/Kg		97	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

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

Lab Sample ID: 880-24037-A-21-E MS
Matrix: Solid
Analysis Batch: 44714

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 44697

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	77		70 - 130
o-Terphenyl	68	S1-	70 - 130

Lab Sample ID: 880-24037-A-21-F MSD
Matrix: Solid
Analysis Batch: 44714

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 44697

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 F2	998	1207	F2	mg/Kg		117	70 - 130	28	20
Diesel Range Organics (Over C10-C28)	<50.0	U	998	1148		mg/Kg		115	70 - 130	16	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl	79		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-44710/1-A
Matrix: Solid
Analysis Batch: 44772

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			01/25/23 21:58	1

Lab Sample ID: LCS 880-44710/2-A
Matrix: Solid
Analysis Batch: 44772

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	268.9		mg/Kg		108	90 - 110		

Lab Sample ID: LCSD 880-44710/3-A
Matrix: Solid
Analysis Batch: 44772

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	266.1		mg/Kg		106	90 - 110	1	20

Lab Sample ID: 890-3918-1 MS
Matrix: Solid
Analysis Batch: 44772

Client Sample ID: SS01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	9.73		252	286.3		mg/Kg		110	90 - 110		

QC Sample Results

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-3918-1 MSD
Matrix: Solid
Analysis Batch: 44772

Client Sample ID: SS01
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	9.73		252	281.4		mg/Kg		108	90 - 110	2	20

Lab Sample ID: 890-3918-11 MS
Matrix: Solid
Analysis Batch: 44772

Client Sample ID: SS11
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	10.5	F1	250	288.8	F1	mg/Kg		111	90 - 110

Lab Sample ID: 890-3918-11 MSD
Matrix: Solid
Analysis Batch: 44772

Client Sample ID: SS11
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	10.5	F1	250	281.0		mg/Kg		108	90 - 110	3	20

QC Association Summary

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

GC VOA

Prep Batch: 44615

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3918-1	SS01	Total/NA	Solid	5035	
890-3918-2	SS02	Total/NA	Solid	5035	
890-3918-3	SS03	Total/NA	Solid	5035	
890-3918-4	SS04	Total/NA	Solid	5035	
890-3918-5	SS05	Total/NA	Solid	5035	
890-3918-6	SS06	Total/NA	Solid	5035	
890-3918-7	SS07	Total/NA	Solid	5035	
890-3918-8	SS08	Total/NA	Solid	5035	
890-3918-9	SS09	Total/NA	Solid	5035	
890-3918-10	SS10	Total/NA	Solid	5035	
890-3918-11	SS11	Total/NA	Solid	5035	
MB 880-44615/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-44615/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-44615/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-23973-A-12-C MS	Matrix Spike	Total/NA	Solid	5035	
880-23973-A-12-D MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 44616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3918-1	SS01	Total/NA	Solid	8021B	44615
890-3918-2	SS02	Total/NA	Solid	8021B	44615
890-3918-3	SS03	Total/NA	Solid	8021B	44615
890-3918-4	SS04	Total/NA	Solid	8021B	44615
890-3918-5	SS05	Total/NA	Solid	8021B	44615
890-3918-6	SS06	Total/NA	Solid	8021B	44615
890-3918-7	SS07	Total/NA	Solid	8021B	44615
890-3918-8	SS08	Total/NA	Solid	8021B	44615
890-3918-9	SS09	Total/NA	Solid	8021B	44615
890-3918-10	SS10	Total/NA	Solid	8021B	44615
890-3918-11	SS11	Total/NA	Solid	8021B	44615
MB 880-44615/5-A	Method Blank	Total/NA	Solid	8021B	44615
LCS 880-44615/1-A	Lab Control Sample	Total/NA	Solid	8021B	44615
LCSD 880-44615/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	44615
880-23973-A-12-C MS	Matrix Spike	Total/NA	Solid	8021B	44615
880-23973-A-12-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	44615

Analysis Batch: 44675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3918-1	SS01	Total/NA	Solid	Total BTEX	
890-3918-2	SS02	Total/NA	Solid	Total BTEX	
890-3918-3	SS03	Total/NA	Solid	Total BTEX	
890-3918-4	SS04	Total/NA	Solid	Total BTEX	
890-3918-5	SS05	Total/NA	Solid	Total BTEX	
890-3918-6	SS06	Total/NA	Solid	Total BTEX	
890-3918-7	SS07	Total/NA	Solid	Total BTEX	
890-3918-8	SS08	Total/NA	Solid	Total BTEX	
890-3918-9	SS09	Total/NA	Solid	Total BTEX	
890-3918-10	SS10	Total/NA	Solid	Total BTEX	
890-3918-11	SS11	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

GC Semi VOA

Prep Batch: 44696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3918-1	SS01	Total/NA	Solid	8015NM Prep	
890-3918-2	SS02	Total/NA	Solid	8015NM Prep	
890-3918-3	SS03	Total/NA	Solid	8015NM Prep	
890-3918-4	SS04	Total/NA	Solid	8015NM Prep	
890-3918-5	SS05	Total/NA	Solid	8015NM Prep	
890-3918-6	SS06	Total/NA	Solid	8015NM Prep	
890-3918-7	SS07	Total/NA	Solid	8015NM Prep	
890-3918-8	SS08	Total/NA	Solid	8015NM Prep	
890-3918-9	SS09	Total/NA	Solid	8015NM Prep	
890-3918-10	SS10	Total/NA	Solid	8015NM Prep	
MB 880-44696/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-44696/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-44696/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-24038-A-1-F MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-24038-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 44697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3918-11	SS11	Total/NA	Solid	8015NM Prep	
MB 880-44697/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-44697/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-44697/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-24037-A-21-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-24037-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 44706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3918-1	SS01	Total/NA	Solid	8015B NM	44696
890-3918-2	SS02	Total/NA	Solid	8015B NM	44696
890-3918-3	SS03	Total/NA	Solid	8015B NM	44696
890-3918-4	SS04	Total/NA	Solid	8015B NM	44696
890-3918-5	SS05	Total/NA	Solid	8015B NM	44696
890-3918-6	SS06	Total/NA	Solid	8015B NM	44696
890-3918-7	SS07	Total/NA	Solid	8015B NM	44696
890-3918-8	SS08	Total/NA	Solid	8015B NM	44696
890-3918-9	SS09	Total/NA	Solid	8015B NM	44696
890-3918-10	SS10	Total/NA	Solid	8015B NM	44696
MB 880-44696/1-A	Method Blank	Total/NA	Solid	8015B NM	44696
LCS 880-44696/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	44696
LCSD 880-44696/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	44696
880-24038-A-1-F MS	Matrix Spike	Total/NA	Solid	8015B NM	44696
880-24038-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	44696

Analysis Batch: 44714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3918-11	SS11	Total/NA	Solid	8015B NM	44697
MB 880-44697/1-A	Method Blank	Total/NA	Solid	8015B NM	44697
LCS 880-44697/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	44697
LCSD 880-44697/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	44697
880-24037-A-21-E MS	Matrix Spike	Total/NA	Solid	8015B NM	44697
880-24037-A-21-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	44697

QC Association Summary

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

GC Semi VOA

Analysis Batch: 44834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3918-1	SS01	Total/NA	Solid	8015 NM	
890-3918-2	SS02	Total/NA	Solid	8015 NM	
890-3918-3	SS03	Total/NA	Solid	8015 NM	
890-3918-4	SS04	Total/NA	Solid	8015 NM	
890-3918-5	SS05	Total/NA	Solid	8015 NM	
890-3918-6	SS06	Total/NA	Solid	8015 NM	
890-3918-7	SS07	Total/NA	Solid	8015 NM	
890-3918-8	SS08	Total/NA	Solid	8015 NM	
890-3918-9	SS09	Total/NA	Solid	8015 NM	
890-3918-10	SS10	Total/NA	Solid	8015 NM	
890-3918-11	SS11	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 44710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3918-1	SS01	Soluble	Solid	DI Leach	
890-3918-2	SS02	Soluble	Solid	DI Leach	
890-3918-3	SS03	Soluble	Solid	DI Leach	
890-3918-4	SS04	Soluble	Solid	DI Leach	
890-3918-5	SS05	Soluble	Solid	DI Leach	
890-3918-6	SS06	Soluble	Solid	DI Leach	
890-3918-7	SS07	Soluble	Solid	DI Leach	
890-3918-8	SS08	Soluble	Solid	DI Leach	
890-3918-9	SS09	Soluble	Solid	DI Leach	
890-3918-10	SS10	Soluble	Solid	DI Leach	
890-3918-11	SS11	Soluble	Solid	DI Leach	
MB 880-44710/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-44710/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-44710/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3918-1 MS	SS01	Soluble	Solid	DI Leach	
890-3918-1 MSD	SS01	Soluble	Solid	DI Leach	
890-3918-11 MS	SS11	Soluble	Solid	DI Leach	
890-3918-11 MSD	SS11	Soluble	Solid	DI Leach	

Analysis Batch: 44772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3918-1	SS01	Soluble	Solid	300.0	44710
890-3918-2	SS02	Soluble	Solid	300.0	44710
890-3918-3	SS03	Soluble	Solid	300.0	44710
890-3918-4	SS04	Soluble	Solid	300.0	44710
890-3918-5	SS05	Soluble	Solid	300.0	44710
890-3918-6	SS06	Soluble	Solid	300.0	44710
890-3918-7	SS07	Soluble	Solid	300.0	44710
890-3918-8	SS08	Soluble	Solid	300.0	44710
890-3918-9	SS09	Soluble	Solid	300.0	44710
890-3918-10	SS10	Soluble	Solid	300.0	44710
890-3918-11	SS11	Soluble	Solid	300.0	44710
MB 880-44710/1-A	Method Blank	Soluble	Solid	300.0	44710
LCS 880-44710/2-A	Lab Control Sample	Soluble	Solid	300.0	44710
LCSD 880-44710/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	44710

QC Association Summary

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

HPLC/IC (Continued)

Analysis Batch: 44772 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3918-1 MS	SS01	Soluble	Solid	300.0	44710
890-3918-1 MSD	SS01	Soluble	Solid	300.0	44710
890-3918-11 MS	SS11	Soluble	Solid	300.0	44710
890-3918-11 MSD	SS11	Soluble	Solid	300.0	44710

Lab Chronicle

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

Client Sample ID: SS01
Date Collected: 01/23/23 10:20
Date Received: 01/23/23 13:28

Lab Sample ID: 890-3918-1
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			4.95 g	5 mL	44615	01/24/23 09:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44616	01/24/23 14:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44675	01/24/23 15:43	SM	EET MID
Total/NA	Analysis	8015 NM		1			44834	01/26/23 14:54	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	44696	01/25/23 08:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	44706	01/25/23 18:08	AJ	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	44710	01/25/23 09:37	KS	EET MID
Soluble	Analysis	300.0		1			44772	01/25/23 22:12	CH	EET MID

Client Sample ID: SS02
Date Collected: 01/23/23 10:25
Date Received: 01/23/23 13:28

Lab Sample ID: 890-3918-2
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	44615	01/24/23 09:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44616	01/24/23 14:34	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44675	01/24/23 15:43	SM	EET MID
Total/NA	Analysis	8015 NM		1			44834	01/26/23 14:54	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	44696	01/25/23 08:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	44706	01/25/23 18:31	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44710	01/25/23 09:37	KS	EET MID
Soluble	Analysis	300.0		1			44772	01/25/23 22:27	CH	EET MID

Client Sample ID: SS03
Date Collected: 01/23/23 10:30
Date Received: 01/23/23 13:28

Lab Sample ID: 890-3918-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	44615	01/24/23 09:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44616	01/24/23 14:54	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44675	01/24/23 15:43	SM	EET MID
Total/NA	Analysis	8015 NM		1			44834	01/26/23 14:54	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	44696	01/25/23 08:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	44706	01/25/23 18:53	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	44710	01/25/23 09:37	KS	EET MID
Soluble	Analysis	300.0		1			44772	01/25/23 22:32	CH	EET MID

Client Sample ID: SS04
Date Collected: 01/23/23 10:35
Date Received: 01/23/23 13:28

Lab Sample ID: 890-3918-4
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			5.02 g	5 mL	44615	01/24/23 09:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44616	01/24/23 15:15	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44675	01/25/23 14:05	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

Client Sample ID: SS04
Date Collected: 01/23/23 10:35
Date Received: 01/23/23 13:28

Lab Sample ID: 890-3918-4
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			44834	01/26/23 14:54	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	44696	01/25/23 08:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	44706	01/25/23 19:14	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	44710	01/25/23 09:37	KS	EET MID
Soluble	Analysis	300.0		1			44772	01/25/23 22:37	CH	EET MID

Client Sample ID: SS05
Date Collected: 01/23/23 10:40
Date Received: 01/23/23 13:28

Lab Sample ID: 890-3918-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	44615	01/24/23 09:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44616	01/24/23 15:36	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44675	01/25/23 14:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			44834	01/26/23 14:54	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	44696	01/25/23 08:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	44706	01/25/23 19:37	AJ	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	44710	01/25/23 09:37	KS	EET MID
Soluble	Analysis	300.0		1			44772	01/25/23 22:41	CH	EET MID

Client Sample ID: SS06
Date Collected: 01/23/23 10:45
Date Received: 01/23/23 13:28

Lab Sample ID: 890-3918-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	44615	01/24/23 09:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44616	01/24/23 15:56	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44675	01/25/23 14:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			44834	01/26/23 14:54	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	44696	01/25/23 08:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	44706	01/25/23 20:01	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	44710	01/25/23 09:37	KS	EET MID
Soluble	Analysis	300.0		1			44772	01/25/23 22:56	CH	EET MID

Client Sample ID: SS07
Date Collected: 01/23/23 10:50
Date Received: 01/23/23 13:28

Lab Sample ID: 890-3918-7
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			5.03 g	5 mL	44615	01/24/23 09:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44616	01/24/23 18:48	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44675	01/25/23 14:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			44834	01/26/23 14:54	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	44696	01/25/23 08:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	44706	01/25/23 20:26	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

Client Sample ID: SS07

Date Collected: 01/23/23 10:50
Date Received: 01/23/23 13:28

Lab Sample ID: 890-3918-7

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	44710	01/25/23 09:37	KS	EET MID
Soluble	Analysis	300.0		1			44772	01/25/23 23:01	CH	EET MID

Client Sample ID: SS08

Date Collected: 01/23/23 10:55
Date Received: 01/23/23 13:28

Lab Sample ID: 890-3918-8

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			5.02 g	5 mL	44615	01/24/23 09:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44616	01/24/23 19:09	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44675	01/25/23 14:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			44834	01/26/23 14:54	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	44696	01/25/23 08:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	44706	01/25/23 20:51	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	44710	01/25/23 09:37	KS	EET MID
Soluble	Analysis	300.0		1			44772	01/25/23 23:06	CH	EET MID

Client Sample ID: SS09

Date Collected: 01/23/23 11:00
Date Received: 01/23/23 13:28

Lab Sample ID: 890-3918-9

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			5.01 g	5 mL	44615	01/24/23 09:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44616	01/24/23 19:29	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44675	01/25/23 14:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			44834	01/26/23 14:54	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	44696	01/25/23 08:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	44706	01/25/23 21:19	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	44710	01/25/23 09:37	KS	EET MID
Soluble	Analysis	300.0		1			44772	01/25/23 23:11	CH	EET MID

Client Sample ID: SS10

Date Collected: 01/23/23 11:05
Date Received: 01/23/23 13:28

Lab Sample ID: 890-3918-10

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			5.02 g	5 mL	44615	01/24/23 09:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44616	01/24/23 19:50	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44675	01/25/23 14:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			44834	01/26/23 14:54	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	44696	01/25/23 08:39	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	44706	01/25/23 21:42	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44710	01/25/23 09:37	KS	EET MID
Soluble	Analysis	300.0		1			44772	01/25/23 23:15	CH	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

Client Sample ID: SS11

Date Collected: 01/23/23 11:10
Date Received: 01/23/23 13:28

Lab Sample ID: 890-3918-11

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			5.03 g	5 mL	44615	01/24/23 09:38	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	44616	01/24/23 20:11	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			44675	01/25/23 14:05	SM	EET MID
Total/NA	Analysis	8015 NM		1			44834	01/26/23 15:15	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	44697	01/25/23 08:41	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	44714	01/25/23 16:38	AJ	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	44710	01/25/23 09:37	KS	EET MID
Soluble	Analysis	300.0		1			44772	01/25/23 23:20	CH	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-25	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

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

Protocol References:

ASTM = ASTM International

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:

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

Sample Summary

Client: Ensolum
Project/Site: PLU PC 28

Job ID: 890-3918-1
SDG: 03C1558153

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3918-1	SS01	Solid	01/23/23 10:20	01/23/23 13:28	0.5'
890-3918-2	SS02	Solid	01/23/23 10:25	01/23/23 13:28	0.5'
890-3918-3	SS03	Solid	01/23/23 10:30	01/23/23 13:28	0.5'
890-3918-4	SS04	Solid	01/23/23 10:35	01/23/23 13:28	0.5'
890-3918-5	SS05	Solid	01/23/23 10:40	01/23/23 13:28	0.5'
890-3918-6	SS06	Solid	01/23/23 10:45	01/23/23 13:28	0.5'
890-3918-7	SS07	Solid	01/23/23 10:50	01/23/23 13:28	0.5'
890-3918-8	SS08	Solid	01/23/23 10:55	01/23/23 13:28	0.5'
890-3918-9	SS09	Solid	01/23/23 11:00	01/23/23 13:28	0.5'
890-3918-10	SS10	Solid	01/23/23 11:05	01/23/23 13:28	0.5'
890-3918-11	SS11	Solid	01/23/23 11:10	01/23/23 13:28	0.5'

eurofins | Environment Testing Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 2

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Garret Green
Company Name:	Ensolum	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Green St.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	303-887-2946	Email:	Garret.Green@ExxonMobil.com tmorrissey@ensolum.com

Work Order Comments

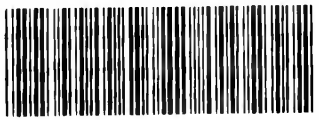
Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables: EDD ☐ ADaPT ☐ Other:

Project Name:	PLU PC 28	Turn Around	☐ Routine ☑ Rush
Project Number:	03C1558153	Due Date:	3 day TAT
Project Location:	32.18273, -103.88091	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Kase Parker		
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	TPM-007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	3.8	
Total Containers:		Corrected Temperature:	3.6	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
SS01	S	1/23/2023	10:20	0.5'	Grab/	1		x	x	x
SS02	S	1/23/2023	10:25	0.5'	Grab/	1		x	x	x
SS03	S	1/23/2023	10:30	0.5'	Grab/	1		x	x	x
SS04	S	1/23/2023	10:35	0.5'	Grab/	1		x	x	x
SS05	S	1/23/2023	10:40	0.5'	Grab/	1		x	x	x
SS06	S	1/23/2023	10:45	0.5'	Grab/	1		x	x	x
SS07	S	1/23/2023	10:50	0.5'	Grab/	1		x	x	x
SS08	S	1/23/2023	10:55	0.5'	Grab/	1		x	x	x
SS09	S	1/23/2023	11:00	0.5'	Grab/	1		x	x	x
SS10	S	1/23/2023	11:05	0.5'	Grab/	1		x	x	x

ANALYSIS REQUEST



890-3918 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:
nAPP2233349315
Cost Center:
1081071001
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		1:2323 1328			
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

eurofins | Environment Testing Xenco

Chain of Custody

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

Work Order No: _____

www.xenco.com Page 2 of 2

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Garret Green
Company Name:	Ensolum	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Green St.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	303-887-2946	Email:	Garret.Green@ExxonMobil.com tmorrissey@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 PC 28	Turn Around	
Project Number:	03C1558153	☐ Routine ☑ Rush	
Project Location:	32.18273, -103.88091	Due Date:	3 day TAT
Sampler's Name:	Kase Parker	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:		
Cooler Custody Seals:	Yes No N/A	Correction Factor:		
Sample Custody Seals:	Yes No N/A	Temperature Reading:		
Total Containers:		Corrected Temperature:		

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 Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021
SS11	S	1/23/2023	11:10	0.5'	Grab/	1		x	x	x

Sample Comments

Incident ID: nAPP2233349315
Cost Center: 1081071001
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		Amanda Stuff	1-23-23 1328			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

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

Chain of Custody Record

eurofins | Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer, Jessica	Carrier Tracking No(s):	COC No: 890-1108 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 #: 890-3918-1
Address: 1211 W Florida Ave, ,	Due Date Requested: 1/26/2023			
City: Midland	TAT Requested (days):			
State, Zip: TX, 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email:	WO #:			
Project Name: PLU PC 28	Project #: 89000093			
Site:	SSOW#:			

Analysis Requested

Preservation Codes.

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note:
			Preservation Code:										
SS01 (890-3918-1)	1/23/23	10 20 Mountain		Solid			X	X	X	X	X	1	
SS02 (890-3918-2)	1/23/23	10 25 Mountain		Solid			X	X	X	X	X	1	
SS03 (890-3918-3)	1/23/23	10 30 Mountain		Solid			X	X	X	X	X	1	
SS04 (890-3918-4)	1/23/23	10 35 Mountain		Solid			X	X	X	X	X	1	
SS05 (890-3918-5)	1/23/23	10 40 Mountain		Solid			X	X	X	X	X	1	
SS06 (890-3918-6)	1/23/23	10 45 Mountain		Solid			X	X	X	X	X	1	
SS07 (890-3918-7)	1/23/23	10 50 Mountain		Solid			X	X	X	X	X	1	
SS08 (890-3918-8)	1/23/23	10 55 Mountain		Solid			X	X	X	X	X	1	
SS09 (890-3918-9)	1/23/23	11 00 Mountain		Solid			X	X	X	X	X	1	

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

Possible Hazard Identification	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
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3918-1
SDG Number: 03C1558153

Login Number: 3918
List Number: 1
Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3918-1
SDG Number: 03C1558153

Login Number: 3918
List Number: 2
Creator: Teel, Brianna

List Source: Eurofins Midland
List Creation: 01/24/23 12:14 PM

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

ENSOLUM

APPENDIX D

NMOCD Notifications

From: Green, Garrett J
To: ocd.enviro@emnrd.nm.gov; Bratcher, Michael, EMNRD; Harimon, Jocelyn, EMNRD; Hamlet, Robert, EMNRD
Cc: Tacoma Morrissey; DelawareSpills /SM
Subject: XTO - Sampling Notification (Week of 1/23/23 - 1/27/23)
Date: Thursday, January 19, 2023 9:34:01 AM

[**EXTERNAL EMAIL**]

All,

XTO plans to complete final sampling activities at the following sites the week of Jan 23, 2023.

- Big Sinks 2-24-30 / NAB1913729531
- PLU PC 28 / nAPP2233349315
- Remuda 500 / NAPP2300441385, NAPP2300448092, NAPP2300641362 & nAPP2234832761
- PLU 29 BS CTB / nAPP2235642838

Thank you,

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

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

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 186280

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 186280
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2233349315 PLU PIERCE CANYON 28 BATTERY, thank you. This closure is approved.	6/15/2023