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	NAPP2306054654
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 32.18242 Longitude -103.68631
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Outrider 28 Fed 501H	Site Type Production Well
Date Release Discovered 02/15/2023	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
M	28	24S	32E	Lea

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)	Volume Recovered (bbls)
☐ 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) Produced Water w/FR	Volume/Weight Released (provide units) 20.00	Volume/Weight Recovered (provide units) 5.00

Cause of Release: During frac operations a 2" plug valve washed out, resulting in a fluid release onto the ground. All free fluids were recovered. A third-party contractor has been retained for remediation purposes.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2306054654
District RP	
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Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release? N/A

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

Initial Response

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

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

If all the actions described above have not been undertaken, explain why:
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: 03/01/2023
email: garrett.green@exxonmobil.com
Telephone: 575-200-0729

OCD Only

Received by: Jocelyn Harimon
Date: 03/01/2023

Location:	Outrider 28 Fed 501H	
Spill Date:	2/15/2023+	

Area 1		
Approximate Area =	5.61	cu.ft.
VOLUME OF LEAK		
Total Crude Oil =	0.00	bbls
Total Produced Water =	1.00	bbls

Area 2		
Approximate Area =	3369.00	sq. ft.
Average Saturation (or depth) of spill =	2.00	inches

Average Porosity Factor =	0.15	

VOLUME OF LEAK		
Total Crude Oil =	0.00	bbls
Total Produced Water =	19.00	bbls

TOTAL VOLUME OF LEAK		
Total Crude Oil =	**0.00**	**bbls**
Total Produced Water =	**20.00**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**0.00**	**bbls**
Total Produced Water =	**5.00**	**bbls**

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

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

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 192173
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	3/1/2023

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2306054654
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2306054654
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: _SSHE Coordinator_____

Signature:__  _____ Date: ____7/21/2023_____

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

OCD Only

Received by: Shelly Wells _____ Date: 8/14/2023 _____

Incident ID	NAPP2306054654
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: _SSHE Coordinator_____

Signature: _____ _____ Date: __7/21/2023_____

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

OCD Only

Received by: __Shelly Wells_____ Date: _8/14/2023_____

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: Nelson Velez Date: 11/28/2023

Printed Name: Nelson Velez Title: Environmental Specialist – Adv

ENSOLUM

July 21, 2023

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

Re: Closure Request
Outrider 28 Fed 501H
Incident Number NAPP2306054654
Lea County, New Mexico

To Whom It May Concern:

Ensolum, LLC (Ensolum), on behalf of XTO Energy, Inc. (XTO), has prepared this *Closure Request* to document assessment, excavation, and soil sampling activities at the Outrider 28 Fed 501H (Site). The purpose of the Site assessment, excavation, and soil sampling activities was to assess for the presence or absence of impacts to soil following a release of produced water with friction reducer at the Site. Based on excavation activities and soil sample laboratory analytical results, XTO is submitting this *Closure Request*, describing remediation that has occurred and requesting closure for Incident Number NAPP2306054654.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit M, Section 28, Township 24 South, Range 32 East, in Lea County, New Mexico (32.18242°, -103.68631°) and is associated with oil and gas exploration and production operations on Federal Land managed by the Bureau of Land Management (BLM).

On February 15, 2023, a plug valve washed out during hydraulic fracturing (frac) operations causing approximately 20 barrels (bbls) of produced water mixed with friction reducer to release onto the surface of the well pad. A vacuum truck was immediately dispatched and recovered approximately 5 bbls of released fluids. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) on a Release Notification Form C-141 (Form C-141) on March 1, 2023. The release was assigned Incident Number NAPP2306054654.

Produced water is recycled through filtering and separation, then mixed in a blender with friction reducer and used as frac fluid during the well completion process. The safety data sheet (SDS) for friction reducer is provided as Appendix A.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release, of Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the Form C-141, Site Assessment/Characterization. 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 nearest groundwater well is permitted by the New Mexico Office of the State Engineer (OSE file number C-4536) and is located approximately 0.73 miles

east of the Site. The groundwater well was completed on June 10, 2021, and was drilled to a total depth of 500 feet bgs. The static groundwater level upon completion was 314 feet bgs. All wells used for depth to water determination are depicted on Figure 1 and the Well Record and Log for groundwater well C-4536 is included in Appendix B.

The closest continuously flowing or significant watercourse to the Site is a freshwater emergent wetland, located approximately 3,914 feet north of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet from 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).

Based on the distance of groundwater well C-4536 exceeding 0.5 miles from the Site and guidance issued by NMOCD, the following NMOCD Table I Closure Criteria (Closure Criteria) apply:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total petroleum hydrocarbons (TPH): 100 mg/kg
- Chloride: 600 mg/kg

Because the release included produced water and friction reducer, the friction reducer SDS was reviewed to determine what additional constituents of concern (COCs), if any, should be assessed. According to the SDS, the friction reducer does not cotain any constituents regulated by the Clean Water Act (CWA) or the Comprehensive Environmental Response Compensation and Liability Act (CERCLA); however friction reducer does include hydro-treated petroleum distillates, which can be detected through analysis of TPH. As such, no additional COCs were assessed for this release.

SITE ASSESSMENT ACTIVITIES

On May 12, 2023, Site assessment activities were conducted at the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. Four delineation soil samples (SS01 through SS04) were collected within the release extent at a depth of 0.5 feet bgs to assess for the presence of absence of soil 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 release extent and soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photo documentation was conducted during the Site visits and a photographic log is included in Appendix C.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported under strict chain-of-custody procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of the following COCs: BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH-gasoline range organics (GRO), TPH-diesel range organics (DRO), and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0. Soil samples delivered to the laboratory the same day they were collected may not have equilibrated to 6 degrees Celcius required for shipment and long term storage, but are considered to have been received in acceptable condition by the laboratory.

Laboratory analytical results for delineation samples SS01 through SS04 indicated TPH and chloride concentrations exceeded the Site Closure Criteria. Based on the presence of impacted soil, additional delineation and excavation activities were warranted.

DELINEATION AND EXCAVATION ACTIVITIES

On May 22, 2023, Ensolum personnel returned to the Site to oversee addtional delineation and excavation of impacted soil. Four potholes (PH01 through PH04) were advanced by use of heavy equipment at the locations of delineation samples SS01 through SS04, respectively. Discrete delineation soil samples were collected from each pothole at a terminal depth of 1.5 feet bgs. Field screening results and observations for the potholes were logged on lithologic/soil sampling logs and are included in Appendix D. The delineation soil samples were field screened, handled, and analyzed as described above. The delineation soil sample locations are depicted on Figure 2.

Impacted soil was excavated from the release area as indicated by delineation soil samples SS01 through SS04, which contained TPH and chloride impacted soil. Excavation activities were performed utilizing a trackhoe and transport vehicles. The excavation occurred on the well pad. To direct excavation activities, soil was field screened for VOCs and chloride.

Following removal of the impacted soil, 5-point composite soil samples were collected every 200 square feet from the floor and sidewalls of the excavation. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Confirmation soil samples FS01 through FS13 were collected from the floor of the excavation at an approximate depth of 1.5 feet bgs. Confirmation soil samples SW01 and SW02 were collected from the sidewalls of the excavation at depths ranging from the ground surface to 1.5 feet bgs. All excavation confirmation soil samples collected were handled and analyzed following the same procedures as described above. The excavation extent and excavation confirmation soil sample locations are presented on Figure 3. Photographic documentation of the excavation is included in Appendix C.

The final excavation extent measured approximately 2,219 square feet. A total of approximately 120 cubic yards of impacted soil was removed during excavation activities. The impacted soil was transported and properly disposed of at R360 Landfill Disposal Facility in Hobbs, New Mexico. After completion of confirmation sampling, the excavation area was secured with fencing.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for excavation floor samples FS01 through FS11 and FS13 and excavation sidewall samples SW01 and SW02 indicated all COC concentrations were compliant with the Site Closure Criteria. Laboratory analytical results for excavation floor soil sample FS12 indicated chloride concentrations slightly exceeded the Site Closure Criteria. On June 1, 2023, Ensolum returned to the Site to recollect in the area of excavation floor soil sample FS12. One 5-point composite soil sample (FS12A) was collected in the vicinity of FS12 from the floor of the excavation at a depth of 1.5 feet bgs. The soil sample was collected, field screened, and handled following the same procedures described above but was submitted to Cardinal Laboratories in Hobbs, New Mexico, which can reliably provide results within a rush turnaround time of 24 hours. The soil sample was analyzed for the same COCs listed above, but chloride was analyzed following Method SM4500 Cl-B in order to achieve rush turnaround time. Laboratory analytical results for soil sample FS12A indicated all COC concentrations were compliant with the Site Closure Criteria. The difference in the results of the chloride analysis is likely related to soil heterogenity within the composite aliquots collected. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included in Appendix E. Notification of sampling events are included in Appendix F.

CLOSURE REQUEST

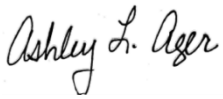
Site assessment, delineation, and excavation activities were conducted at the Site to address the February 15, 2023 release of produced water with friction reducer. Laboratory analytical results for all excavation soil samples collected from the final excavation extent indicated all COC concentrations were compliant with the Site Closure Criteria. Based on laboratory analytical results, no further remediation was required. The release is fully defined laterally through the collection of composite sidewall samples SW01 and SW02, and vertically through the collection of delineation soil samples PH01 through PH04 and composite floor samples FS01 through FS13. On June 7, 2023, XTO backfilled the excavation due to XTO flowback operations needing to complete work near the excavation area. The excavation was backfilled with material purchased locally and the area was recontoured to match pre-existing site conditions. Photographic documentation of the backfill is included in Appendix C.

Excavation of impacted soil has mitigated adverse effects at this Site. Based on laboratory analytical results compliant with the Site Closure Criteria, no further remediation is required. As such, XTO respectfully requests closure for Incident Number NAPP2306054654.

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

Sincerely,
Ensolum, LLC

Benjamin J. Belill
Project Geologist



Ashley L. Ager, MS, PG
Principal

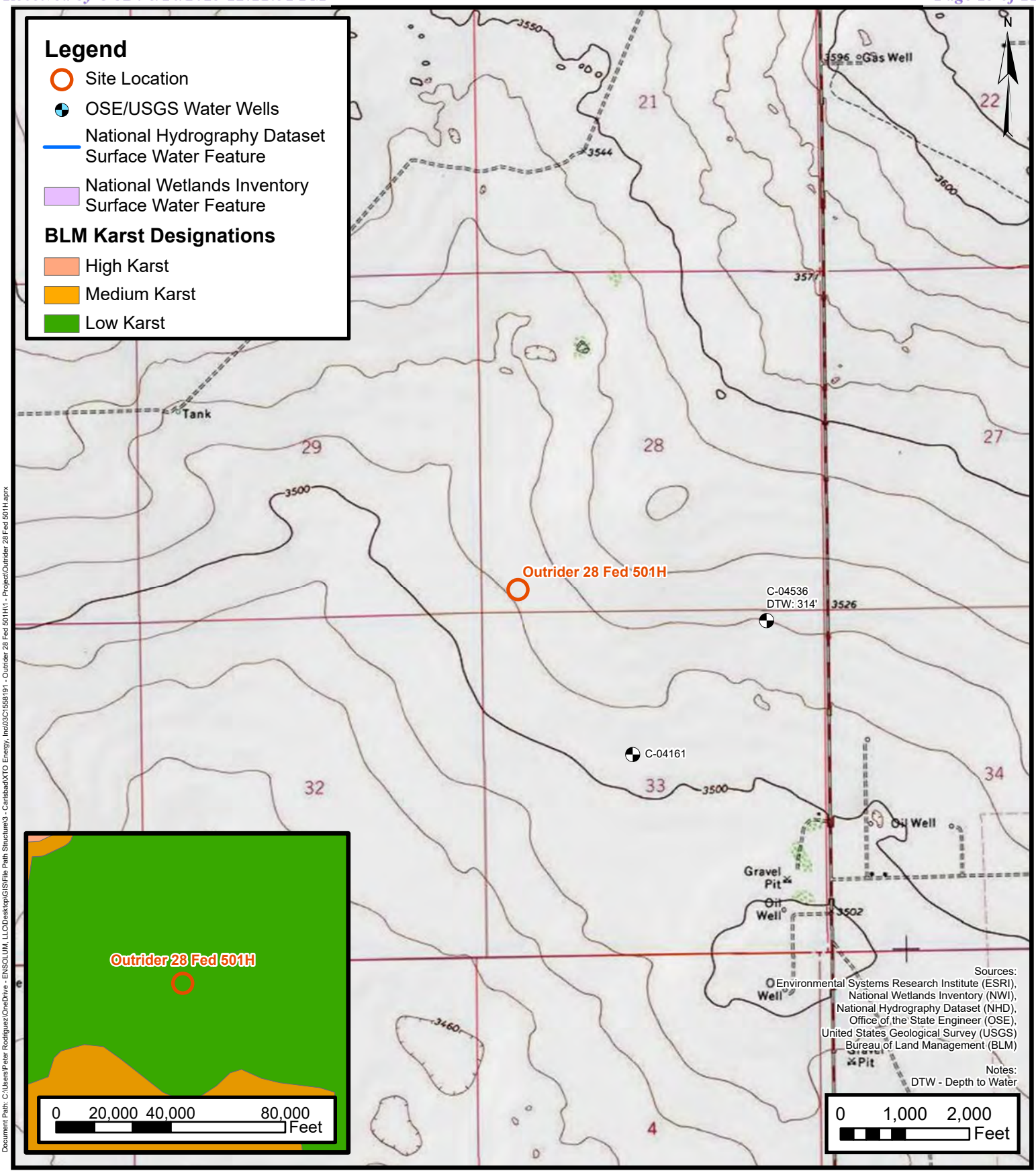
cc: Garrett Green, XTO
Shelby Pennington, XTO
BLM

Appendices:

Figure 1	Site Receptor Map
Figure 2	Delineation Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Friction Reducer SDS
Appendix B	Referenced Well Records
Appendix C	Photographic Log
Appendix D	Lithology Soil Sampling Logs
Appendix E	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix F	NMOCD Notifications/Correspondence

ENSOLUM

FIGURES



Document Path: C:\Users\Peter Rodriguez\OneDrive - ENSOLUM, LLC\Desktop\GIS\File Path Structure\3 - Carlsbad\XTO Energy, Inc\03C1558191 - Outrider 28 Fed 501H\1 - Project\Outrider 28 Fed 501H.aprx

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Site Receptor Map

XTO Energy, Inc

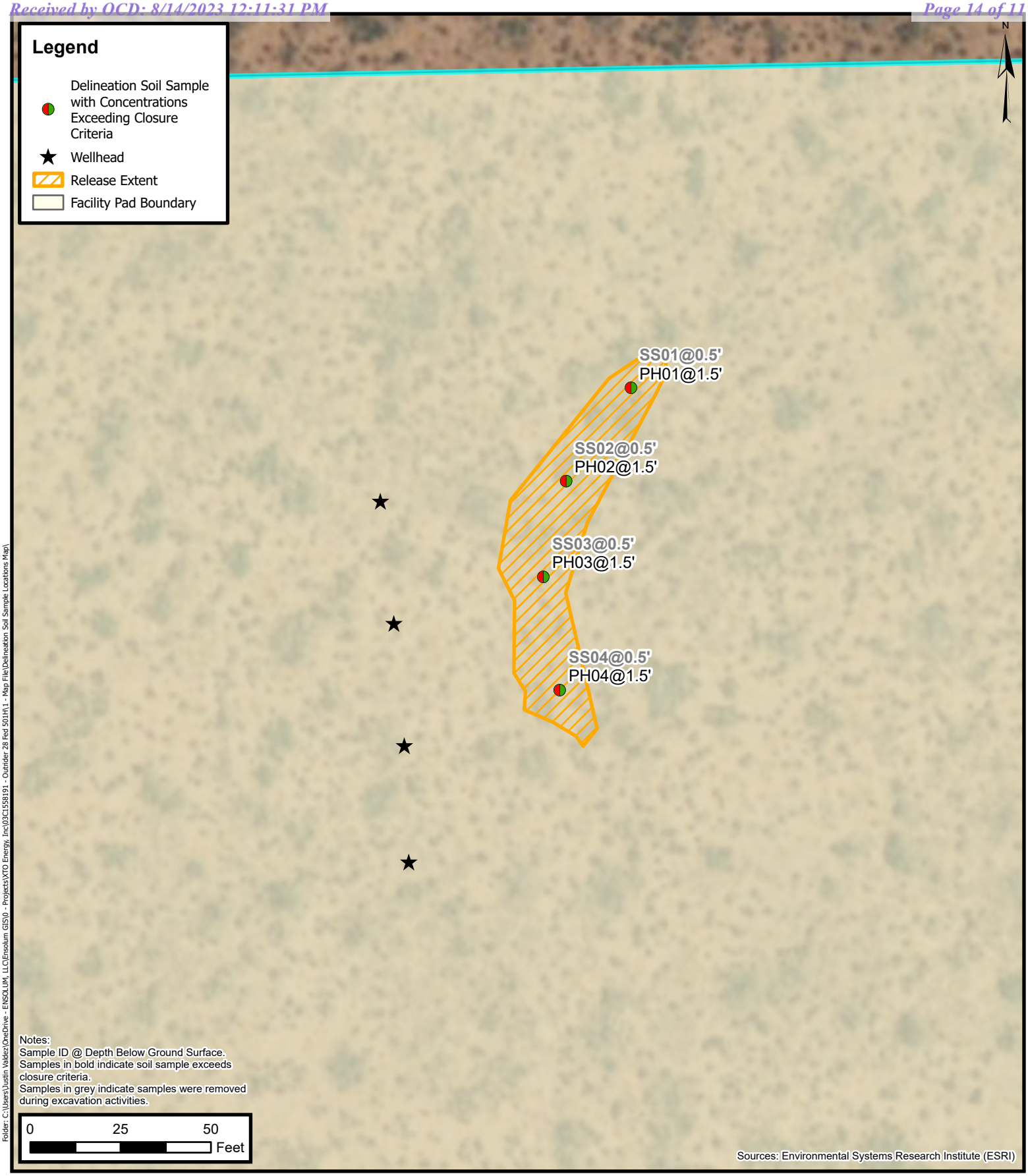
Outrider 28 Fed 501H

Incident Number: NAPP2306054654

Unit M, Section 28, T24S, R32E
Lea County, New Mexico

FIGURE

1



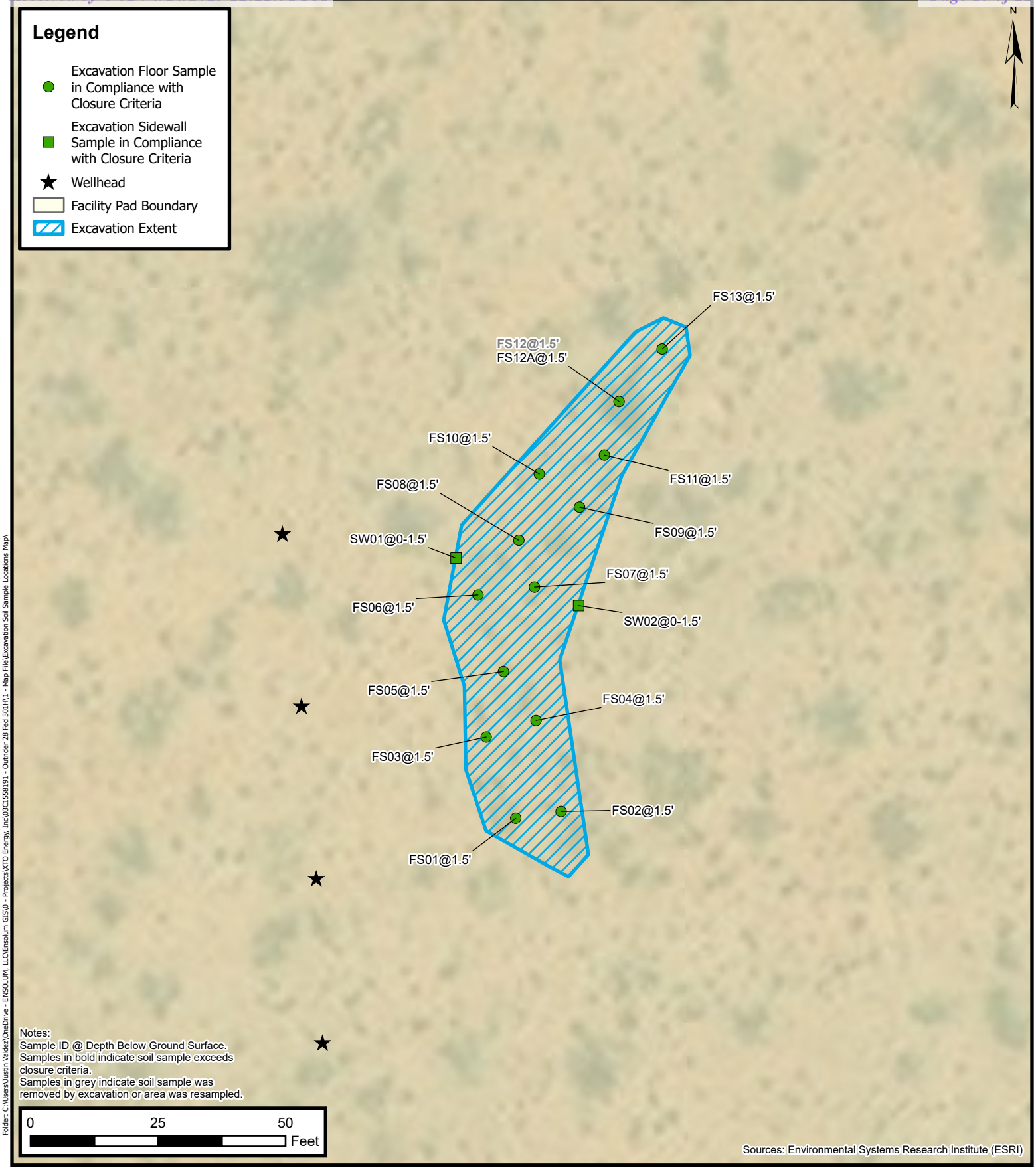
Folder: C:\Users\Justin Valdez\OneDrive - ENSOLUM, LLC\Ensolum GIS\0 - Projects\XTO Energy, Inc\03C1558191 - Outrider 28 Fed 501H\1 - Map File\Delineation Soil Sample Locations Map\

ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Delineation Soil Sample Locations

XTO Energy, Inc
Outrider 28 Fed 501H
Incident Number: NAPP2306054654
Unit M, Sec 28, T24S, R32E
Lea County, New Mexico

FIGURE 2



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ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

Excavation Soil Sample Locations

XTO Energy, Inc
Outrider 28 Fed 501H
Incident Number: NAPP2306054654
Unit M, Sec 28, T24S, R32E
Lea County, New Mexico

FIGURE 3

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Outrider 28 Fed 501H
XTO Energy, Inc
Lea 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	NE	100	600
Delineation Soil Samples										
~~SS01~~	~~05/12/2023~~	~~0.5~~	~~<0.00199~~	~~<0.00398~~	~~<49.8~~	~~443~~	~~<49.8~~	~~443~~	~~**443**~~	~~**18,900**~~
PH01	05/22/2023	1.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	151
~~SS02~~	~~05/12/2023~~	~~0.5~~	~~<0.00200~~	~~<0.00399~~	~~<49.9~~	~~396~~	~~<49.9~~	~~396~~	~~**396**~~	~~**19,200**~~
PH02	05/22/2023	1.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	182
~~SS03~~	~~05/12/2023~~	~~0.5~~	~~<0.00201~~	~~<0.00402~~	~~<49.8~~	~~854~~	~~<49.8~~	~~854~~	~~**854**~~	~~**121,000**~~
PH03	05/22/2023	1.5	<0.00202	<0.00404	<50.0	<50.0	<50.0	<50.0	<50.0	90.8
~~SS04~~	~~05/12/2023~~	~~0.5~~	~~<0.00200~~	~~<0.00401~~	~~<49.9~~	~~1100~~	~~<49.9~~	~~1,100~~	~~**1,100**~~	~~**28,800**~~
PH04	05/22/2023	1.5	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	108
Confirmation Soil Samples										
FS01	05/22/2023	1.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	136
FS02	05/22/2023	1.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	147
FS03	05/22/2023	1.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	133
FS04	05/22/2023	1.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	147
FS05	05/22/2023	1.5	<0.00201	<0.00402	<49.8	<49.8	<49.8	<49.8	<49.8	95.7
FS06	05/22/2023	1.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<49.9	64.2
FS07	05/22/2023	1.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	121
FS08	05/22/2023	1.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	167
FS09	05/22/2023	1.5	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	<50.0	435
FS10	05/22/2023	1.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	174
FS11	05/22/2023	1.5	<0.00200	<0.00401	<49.8	<49.8	<49.8	<49.8	<49.8	192
~~FS12~~	~~05/22/2023~~	~~1.5~~	~~<0.00199~~	~~<0.00398~~	~~<49.9~~	~~<49.9~~	~~<49.9~~	~~<49.9~~	~~<49.9~~	~~**758**~~
FS12A	06/01/2023	1.5	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	48.0
FS13	05/22/2023	1.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	375
SW01	05/22/2023	0 - 1.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	122
SW02	05/22/2023	0 - 1.5	<0.00202	<0.00403	<49.8	<49.8	<49.8	<49.8	<49.8	320

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

~~Grey~~ text indicates soil sample removed during excavation activities or area resampled.

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

NMAC: New Mexico Administrative Code

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APPENDIX A

Friction Reducer SDS

PFP INDUSTRIES

SAFETY DATA SHEET

Issuing Date 01-Aug-2019 **Revision Date** 01-Aug-2019 **Revision Number** 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name POLYglide Xcel-200

Other means of identification

Product Code(s) 10497

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use No information available

Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address
PfP Industries
29738 Goynes Rd.
Katy, TX 77493

Manufacturer Address
PfP Industries
29738 Goynes Rd.
Katy, TX 77493

Emergency telephone number

Company Phone Number 281-371-2000

Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids	Category 4

Hazards not otherwise classified (HNOC)
Not applicable

Label elements

Warning

Combustible liquid

Appearance Opaque **Physical state** Liquid **Odor** Mineral Oil

Precautionary Statements - Prevention
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response

In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage
Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Other Information
May be harmful in contact with skin
Harmful to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical name	CAS No	Weight-%	Trade secret
Petroleum distillates, hydrotreated light	64742-47-8	40 - 70	

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

Inhalation Remove to fresh air.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Self-protection of the first aider Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.

Unsuitable extinguishing media CAUTION: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray.

Explosion data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Special protective equipment for fire-fighters Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Take precautionary measures against static discharges. Do not touch or walk through spilled material.

Environmental precautions

Environmental precautions Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Use personal protection equipment. Do not breathe vapor or mist. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Use with local exhaust ventilation.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Store in accordance with the particular national regulations. Store in accordance with local regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Opaque
Color	Milky white to yellow
Odor	Mineral Oil
Odor threshold	No information available

Property	Values	Remarks • Method
pH	No data available	None known
Melting point / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash point	>= 67 °C / 153 °F	
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	0.97 - 1.03	
Water solubility	Miscible in water	
Solubility in other solvents	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	≥150 mm²/s	
Dynamic viscosity	No data available	None known
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Liquid Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	None known based on information supplied.
Hazardous decomposition products	None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Numerical measures of toxicity

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document.

ATEmix (oral)	5,005.00 mg/kg
ATEmix (dermal)	2,002.00 mg/kg
ATEmix (inhalation-dust/mist)	5.20 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Petroleum distillates, hydrotreated light 64742-47-8	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.2 mg/L (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Petroleum distillates, hydrotreated light 64742-47-8	-	2.4: 96 h Oncorhynchus mykiss mg/L LC50 static 45: 96 h Pimephales promelas mg/L LC50 flow-through 2.2: 96 h Lepomis macrochirus mg/L LC50 static	-	4720: 96 h Den-dronereides heteropoda mg/L LC50

Persistence and degradability No information available.

Bioaccumulation There is no data for this product.

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

14. TRANSPORT INFORMATION

DOT Not regulated. Product does not sustain combustion (49 CFR 173.120(b)(3))

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Does not comply
IECSC	Complies
KECL	Complies

PICCS	Complies
AICS	Complies

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

US State Regulations This product does not contain any substances regulated by state right-to-know regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health hazards	2	Flammability	2	Instability	0	Physical and chemical properties -
HMIS	Health hazards	2	Flammability	2	Physical hazards	0	Personal protection X

Issuing Date	01-Aug-2019
Revision Date	01-Aug-2019
Revision Note	No information available.

Disclaimer

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End of Safety Data Sheet

ENSOLUM

APPENDIX B

Referenced Well Records

OSE DIT JUL 9 2021 PM1:52

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

OSE DIT JUN 2L 2021 PM10:14

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
~~C-4536~~ POD 1	20E37	C-4536

WELL OWNER NAME(S)	PHONE (OPTIONAL)
BASIN PROPERTIES RANCHES LLC	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
3300 N A STREET, BLDG 1, STE 220	MIDLAND	TX	79705

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	10	50.8	N
	LONGITUDE	103	40	25.9	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
WD1706	Bryce Wallace	Elite Drillers Corporation

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
06/09/21	06/10/21	500	500	314

COMPLETED WELL IS: ☐ ARTESIAN ☐ DRY HOLE ☑ SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT): 314

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

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

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	20	12 3/4	STEEL	N/A	8.28	.337	
0	300	7 7/8	SDR17 PVC	SPLINE	4.3	SDR17	
300	500	7 7/8	SDR17 PVC	SPLINE	4.3	SDR17	.032

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
0	20	12 3/4	CEMENT	10	TOP FILL
0	20	7 7/8	CEMENT	6	TOP FILL
300	500	7 7/8	8/16 SILICA SAND	46	TOP FILL

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

FILE NO. C-4536-POD1	POD NO. 1	TRN NO. 695378	
LOCATION STK 24.32.33.122		WELL TAG ID NO. 20E37	PAGE 1 OF 2

OSE DIT JUL 9 2021 PM1:53

OSE DIT JUN 21 2021 PM10:14

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	3	3	RED SAND	Y ✓ N	
3	12	9	CALICHE	Y ✓ N	
12	180	168	RED CLAY	Y ✓ N	
180	235	415	TAN SANDSTONE	Y ✓ N	
235	480	245	TAN SANDSTONE & CLAY STRINGERS	✓ Y N	4.00
480	500	20	RED CLAY WITH SAND STRINGERS	Y ✓ N	
				Y N	
				Y N	
				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): 4.00

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:

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

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 20 DAYS AFTER COMPLETION OF WELL DRILLING:

Bryce Wallace — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

06/16/2021 — DATE

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 06/30/2017)

FILE NO. C-4536-POD1	POD NO. 1	TRN NO. 695378	
LOCATION STK-24.32.33.122		WELL TAG ID NO. 20E37	PAGE 2 OF 2

ENSOLUM

APPENDIX C

Photographic Log

ENSOLUM

Photographic Log
XTO Energy, Inc
Outrider 28 Fed 501H
Incident Number NAPP2306054654

Photograph 1 Date: 5/12/2023
Description: Site assessment, release extent area.
View: South

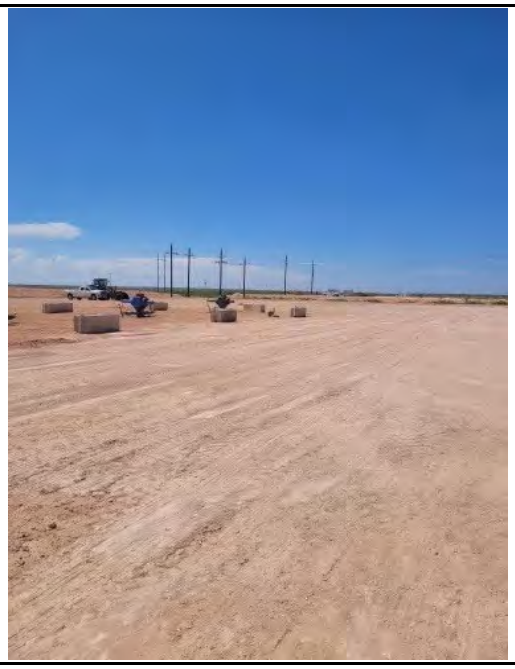
Photograph 2 Date: 5/12/2023
Description: Delineation activities, PH03 and PH04.
View: North

Photograph 3 Date: 5/22/2023
Description: Excavation extent
View: North

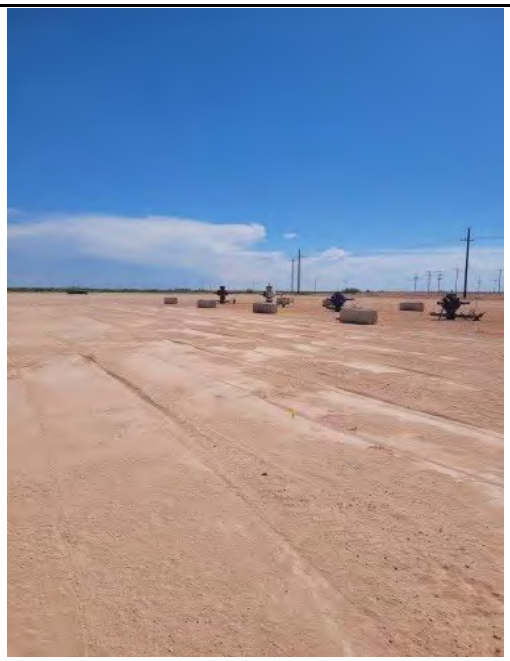
Photograph 4 Date: 5/22/2023
Description: Excavation extent
View: South

ENSOLUM

Photographic Log
XTO Energy, Inc
Outrider 28 Fed 501H
Incident Number NAPP2306054654



Photograph 5 Date: 6/7/2023
Description: Excavation backfilled.
View: Northwest



Photograph 6 Date: 6/7/2023
Description: Excavation backfilled.
View: Southwest

ENSOLUM

APPENDIX D

Lithologic Soil Sampling Logs

ENSOLUM

	Sample Name: PH01	Date: 5/22/2023
	Site Name: Outrider 28 Fed 501H	
	Incident Number: nAPP2306054654	
	Job Number: 03C1558191	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: CW	Method: Trackhoe
Coordinates:32.182536,-103.686245	Hole Diameter: N/A	Total Depth: 1.5

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included in all chloride field screenings.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	34,523	0.0	N	SS01	0.5	0	CCHE	0-0.5', CALICHE, moist, tan, some fine grain sand, some well rounded small to medium gravel, unconsolidated fill, no stain, no odor.
M	<168	0.0	N	PH01	1.5	1	SP	0.5'-1.5', SAND, moist, reddish brown, fine-very fine grained, poorly graded, trace small caliche gravel, no stain, no odor.
						2	TD	Total depth at 1.5 feet bgs.
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

ENSOLUM

	Sample Name: PH02	Date: 5/22/2023
	Site Name: Outrider 28 Fed 501H	
	Incident Number: nAPP2306054654	
	Job Number: 03C1558191	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: CW	Method: Trackhoe
Coordinates:32.182466,-103.686304	Hole Diameter: N/A	Total Depth: 1.5

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included in all chloride field screenings.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	30,268	0.0	N	SS02	0.5	0	CCHE	0-0.5', CALICHE, moist, tan, some fine grain sand, some well rounded small to medium gravel, unconsolidated fill, no stain, no odor.
M	<168	0.0	N	PH02	1.5	1	SP	0.5'-1.5', SAND, moist, reddish brown, fine-very fine grained, poorly graded, trace small caliche gravel, no stain, no odor.
						2	TD	Total depth at 1.5 feet bgs.
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

ENSOLUM

	Sample Name: PH03	Date: 5/22/2023
	Site Name: Outrider 28 Fed 501H	
	Incident Number: nAPP2306054654	
	Job Number: 03C1558191	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: CW	Method: Trackhoe
Coordinates:32.182394,-103.686326	Hole Diameter: N/A	Total Depth: 1.5

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included in all chloride field screenings.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	34,523	0.0	N	SS03	0.5	0	CCHE	0-0.5', CALICHE, moist, tan, some fine grain sand, some well rounded small to medium gravel, unconsolidated fill, no stain, no odor.
M	<168	0.0	N	PH03	1.5	1	SP	0.5'-1.5', SAND, moist, reddish brown, fine-very fine grained, poorly graded, trace small caliche gravel, no stain, no odor.
						2	TD	Total depth at 1.5 feet bgs.
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

ENSOLUM

	Sample Name: PH04	Date: 5/22/2023
	Site Name: Outrider 28 Fed 501H	
	Incident Number: nAPP2306054654	
	Job Number: 03C1558191	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: CW	Method: Trackhoe
Coordinates: 32.182308,-103.686313	Hole Diameter: N/A	Total Depth: 1.5

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. A 40% correction factor is included in all chloride field screenings.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
M	>34,523	0.0	N	SS04	0.5	0	CCHE	0-0.5', CALICHE, moist, tan, some fine grain sand, some well rounded small to medium gravel, unconsolidated fill, no stain, no odor.
M	<168	0.0	N	PH04	1.5	1	SP	0.5'-1.5', SAND, moist, reddish brown, fine-very fine grained, poorly graded, trace small caliche gravel, no stain, no odor.
						2	TD	Total depth at 1.5 feet bgs.
						3		
						4		
						5		
						6		
						7		
						8		
						9		
						10		
						11		
						12		

ENSOLUM

APPENDIX E

Laboratory Analytical Reports & Chain of Custody Documentation

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

June 05, 2023

BEN BELILL

ENSOLUM, LLC

705 W WADLEY AVE.

MIDLAND, TX 79705

RE: OUTRIDER 28 FED 501H

Enclosed are the results of analyses for samples received by the laboratory on 06/02/23 8:34.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-22-15. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

ENSOLUM, LLC
BEN BELILL
705 W WADLEY AVE.
MIDLAND TX, 79705
Fax To:

Received:	06/02/2023	Sampling Date:	06/01/2023
Reported:	06/05/2023	Sampling Type:	Soil
Project Name:	OUTRIDER 28 FED 501H	Sampling Condition:	Cool & Intact
Project Number:	03C1558191	Sample Received By:	Shalyn Rodriguez
Project Location:	LEA COUNTY, NEW MEXICO		

Sample ID: FS 12 A 1.5' (H232788-01)

BTEX 8021B mg/kg Analyzed By: JH/

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/02/2023	ND	1.97	98.5	2.00	9.75	
Toluene*	<0.050	0.050	06/02/2023	ND	2.02	101	2.00	11.3	
Ethylbenzene*	<0.050	0.050	06/02/2023	ND	1.92	96.1	2.00	9.47	
Total Xylenes*	<0.150	0.150	06/02/2023	ND	5.92	98.7	6.00	10.0	
Total BTEX	<0.300	0.300	06/02/2023	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *71.5-134*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	06/02/2023	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	06/02/2023	ND	167	83.4	200	3.82	
DRO >C10-C28*	<10.0	10.0	06/02/2023	ND	173	86.7	200	5.72	
EXT DRO >C28-C36	<10.0	10.0	06/02/2023	ND					

Surrogate: 1-Chlorooctane *76.6 %* *48.2-134*

Surrogate: 1-Chlorooctadecane *80.8 %* *49.1-148*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Ensolum, LLC
Project Manager:	Ben Belill
Address:	601 N. Marienfeld St. STE 400
City:	Midland State: TX Zip: 79701
Phone #:	9898540852 Fax #:
Project #:	03C1558191 Project Owner:
Project Name:	Outrider 28 Fed 501H
Project Location:	Lea County, New Mexico
Sampler Name:	Dmitry Nikanorov

BILL TO

Cost Center#:	2222921001
Company:	XTO Energy, Inc
Attn:	Garrett Green
Address:	3104 E Green St.
City:	Carlsbad
State:	NM Zip: 88220
Phone #:	575 200 0729
Fax #:	

FOR LAB USE ONLY Lab I.D.	Sample I.D.	Sample Depth (feet)	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: Chlorides (EPA 4500)	TPH (8015)	BTEX (8021)
H232788 1	FS12A	1.5'	C	1			X					X		6/1/2023	1445	X	X	X

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 6/2/23 Time: 0705	Received By:	
Relinquished By:	Date: 6-2-23 Time: 0834	Received By:	SRodriguez

Verbal Result: ☐ Yes ☐ No Add'l Phone #:

All Results are emailed. Please provide Email address:

BBelill@ensolum.com, garrett.green@exxonmobil.com, TMorrissey@ensolum.com

REMARKS:

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Observed Temp. °C -0.4
Corrected Temp. °C -1.0

Sample Condition: Cool ☑ Yes ☐ No Intact ☑ Yes ☐ No

CHECKED BY: (Initials) SR

Turnaround Time: Standard ☐ Rush ☒ 24HR

Thermometer ID #113
Correction Factor -0.5°C

Bacteria (only) Sample Condition: Cool ☐ Yes ☐ No Intact ☐ Yes ☐ No Observed Temp. °C Corrected Temp. °C

FORM-006 R 3.2 10/07/21

† Cardinal cannot accept verbal changes. Please email changes to celey.keene@cardinallabsnm.com

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 5/19/2023 11:03:42 AM

JOB DESCRIPTION

Outrider 28 Fed 501H
SDG NUMBER 03C1558191

JOB NUMBER

890-4664-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

my EOL

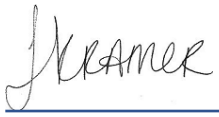
Eurofins Carlsbad

Job Notes

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

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

Authorization



Generated
5/19/2023 11:03:42 AM

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

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Laboratory Job ID: 890-4664-1
SDG: 03C1558191

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4664-1
SDG: 03C1558191

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
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: Outrider 28 Fed 501H

Job ID: 890-4664-1
SDG: 03C1558191

Job ID: 890-4664-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4664-1

Receipt
The samples were received on 5/15/2023 9:36 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: SS01 (890-4664-1), SS02 (890-4664-2), SS03 (890-4664-3) and SS04 (890-4664-4).

GC VOA
Method 8021B: The surrogate recovery for the blank associated with preparation batch 880-53494 and analytical batch 880-53673 was outside the upper control limits.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-53486 and analytical batch 880-53447 was outside the upper control limits.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-53447/31) and (LCS 880-53486/2-A). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following sample was outside control limits: (890-4662-A-1-D). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (CCV 880-53447/47) and (CCV 880-53447/58). Evidence of matrix interferences is not obvious.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS01 (890-4664-1) and SS04 (890-4664-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-53475 and analytical batch 880-53583 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: Outrider 28 Fed 501H

Job ID: 890-4664-1
SDG: 03C1558191

Client Sample ID: SS01

Lab Sample ID: 890-4664-1
Matrix: Solid
Date Collected: 05/12/23 12:55
Date Received: 05/15/23 09:36
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		05/16/23 14:55	05/18/23 22:32	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/16/23 14:55	05/18/23 22:32	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/16/23 14:55	05/18/23 22:32	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/16/23 14:55	05/18/23 22:32	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/16/23 14:55	05/18/23 22:32	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/16/23 14:55	05/18/23 22:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*05/16/23 14:55*	*05/18/23 22:32*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*05/16/23 14:55*	*05/18/23 22:32*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/19/23 10:46	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**443**		49.8		mg/Kg			05/17/23 10:58	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		05/16/23 13:04	05/17/23 03:17	1
Diesel Range Organics (Over C10-C28)	**443**		49.8		mg/Kg		05/16/23 13:04	05/17/23 03:17	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/16/23 13:04	05/17/23 03:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*115*		*70 - 130*	*05/16/23 13:04*	*05/17/23 03:17*	*1*
o-Terphenyl	*134*	*S1+*	*70 - 130*	*05/16/23 13:04*	*05/17/23 03:17*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**18900**		248		mg/Kg			05/17/23 17:55	50

Client Sample ID: SS02

Lab Sample ID: 890-4664-2
Matrix: Solid
Date Collected: 05/12/23 13:00
Date Received: 05/15/23 09:36
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		05/16/23 14:55	05/18/23 22:52	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/16/23 14:55	05/18/23 22:52	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/16/23 14:55	05/18/23 22:52	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/16/23 14:55	05/18/23 22:52	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/16/23 14:55	05/18/23 22:52	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/16/23 14:55	05/18/23 22:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*05/16/23 14:55*	*05/18/23 22:52*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4664-1
SDG: 03C1558191

Client Sample ID: SS02

Date Collected: 05/12/23 13:00
Date Received: 05/15/23 09:36
Sample Depth: 0.5'

Lab Sample ID: 890-4664-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*05/16/23 14:55*	*05/18/23 22:52*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			05/19/23 10:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**396**		49.9	mg/Kg			05/17/23 10:58	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		05/16/23 13:04	05/17/23 03:38	1
Diesel Range Organics (Over C10-C28)	**396**		49.9	mg/Kg		05/16/23 13:04	05/17/23 03:38	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		05/16/23 13:04	05/17/23 03:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*113*		*70 - 130*	*05/16/23 13:04*	*05/17/23 03:38*	*1*
o-Terphenyl	*126*		*70 - 130*	*05/16/23 13:04*	*05/17/23 03:38*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**19200**		252	mg/Kg			05/17/23 18:00	50

Client Sample ID: SS03

Date Collected: 05/12/23 13:05
Date Received: 05/15/23 09:36
Sample Depth: 0.5'

Lab Sample ID: 890-4664-3
Matrix: Solid

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		05/16/23 14:55	05/18/23 23:13	1
Toluene	<0.00201	U	0.00201	mg/Kg		05/16/23 14:55	05/18/23 23:13	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		05/16/23 14:55	05/18/23 23:13	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		05/16/23 14:55	05/18/23 23:13	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		05/16/23 14:55	05/18/23 23:13	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		05/16/23 14:55	05/18/23 23:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*05/16/23 14:55*	*05/18/23 23:13*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*05/16/23 14:55*	*05/18/23 23:13*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			05/19/23 10:46	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**854**		49.8	mg/Kg			05/17/23 10:58	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4664-1
SDG: 03C1558191

Client Sample ID: SS03

Date Collected: 05/12/23 13:05
Date Received: 05/15/23 09:36
Sample Depth: 0.5'

Lab Sample ID: 890-4664-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		05/16/23 13:04	05/17/23 03:59	1
Diesel Range Organics (Over C10-C28)	**854**		49.8		mg/Kg		05/16/23 13:04	05/17/23 03:59	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/16/23 13:04	05/17/23 03:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*114*		*70 - 130*	*05/16/23 13:04*	*05/17/23 03:59*	*1*
o-Terphenyl	*129*		*70 - 130*	*05/16/23 13:04*	*05/17/23 03:59*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**121000**		502		mg/Kg			05/17/23 18:06	100

Client Sample ID: SS04

Date Collected: 05/12/23 13:10
Date Received: 05/15/23 09:36
Sample Depth: 0.5'

Lab Sample ID: 890-4664-4

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/16/23 14:55	05/18/23 23:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/16/23 14:55	05/18/23 23:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/16/23 14:55	05/18/23 23:33	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/16/23 14:55	05/18/23 23:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/16/23 14:55	05/18/23 23:33	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/16/23 14:55	05/18/23 23:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*05/16/23 14:55*	*05/18/23 23:33*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*05/16/23 14:55*	*05/18/23 23:33*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			05/19/23 10:46	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1100**		49.9		mg/Kg			05/17/23 10:58	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/16/23 13:04	05/17/23 04:19	1
Diesel Range Organics (Over C10-C28)	**1100**		49.9		mg/Kg		05/16/23 13:04	05/17/23 04:19	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/16/23 13:04	05/17/23 04:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*117*		*70 - 130*	*05/16/23 13:04*	*05/17/23 04:19*	*1*
o-Terphenyl	*134*	*S1+*	*70 - 130*	*05/16/23 13:04*	*05/17/23 04:19*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4664-1
SDG: 03C1558191

Client Sample ID: SS04
Date Collected: 05/12/23 13:10
Date Received: 05/15/23 09:36
Sample Depth: 0.5'

Lab Sample ID: 890-4664-4
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	28800		250		mg/Kg			05/17/23 18:11	50

Surrogate Summary

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4664-1
SDG: 03C1558191

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-4653-A-1-E MS	Matrix Spike	81	115
890-4653-A-1-F MSD	Matrix Spike Duplicate	115	103
890-4664-1	SS01	105	88
890-4664-2	SS02	99	92
890-4664-3	SS03	95	85
890-4664-4	SS04	97	82
LCS 880-53494/1-A	Lab Control Sample	94	97
LCSD 880-53494/2-A	Lab Control Sample Dup	112	106
MB 880-53494/5-A	Method Blank	68 S1-	85

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-4662-A-1-E MS	Matrix Spike	117	121
890-4662-A-1-F MSD	Matrix Spike Duplicate	126	129
890-4664-1	SS01	115	134 S1+
890-4664-2	SS02	113	126
890-4664-3	SS03	114	129
890-4664-4	SS04	117	134 S1+
LCS 880-53486/2-A	Lab Control Sample	115	131 S1+
LCSD 880-53486/3-A	Lab Control Sample Dup	106	123
MB 880-53486/1-A	Method Blank	162 S1+	204 S1+

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4664-1
SDG: 03C1558191

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-53494/5-A
Matrix: Solid
Analysis Batch: 53673

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 53494

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/16/23 14:55	05/18/23 16:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/16/23 14:55	05/18/23 16:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/16/23 14:55	05/18/23 16:09	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/16/23 14:55	05/18/23 16:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/16/23 14:55	05/18/23 16:09	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/16/23 14:55	05/18/23 16:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*68*	*S1-*	*70 - 130*	*05/16/23 14:55*	*05/18/23 16:09*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*05/16/23 14:55*	*05/18/23 16:09*	*1*

Lab Sample ID: LCS 880-53494/1-A
Matrix: Solid
Analysis Batch: 53673

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 53494

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09702		mg/Kg		97	70 - 130		
Toluene			0.100	0.09851		mg/Kg		99	70 - 130		
Ethylbenzene			0.100	0.1096		mg/Kg		110	70 - 130		
m-Xylene & p-Xylene			0.200	0.2014		mg/Kg		101	70 - 130		
o-Xylene			0.100	0.09829		mg/Kg		98	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*

Lab Sample ID: LCSD 880-53494/2-A
Matrix: Solid
Analysis Batch: 53673

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 53494

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1145		mg/Kg		115	70 - 130	17	35
Toluene			0.100	0.1080		mg/Kg		108	70 - 130	9	35
Ethylbenzene			0.100	0.1088		mg/Kg		109	70 - 130	1	35
m-Xylene & p-Xylene			0.200	0.2305		mg/Kg		115	70 - 130	14	35
o-Xylene			0.100	0.1148		mg/Kg		115	70 - 130	16	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*106*		*70 - 130*

Lab Sample ID: 890-4653-A-1-E MS
Matrix: Solid
Analysis Batch: 53673

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 53494

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.0998	0.1202		mg/Kg		120	70 - 130		
Toluene	<0.00200	U	0.0998	0.09234		mg/Kg		92	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4664-1
SDG: 03C1558191

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

Lab Sample ID: 890-4653-A-1-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 53673 — **Prep Batch: 53494**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.0998	0.08222		mg/Kg		82	70 - 130
m-Xylene & p-Xylene	<0.00399	U	0.200	0.1593		mg/Kg		80	70 - 130
o-Xylene	<0.00200	U	0.0998	0.07902		mg/Kg		79	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*81*		*70 - 130*
1,4-Difluorobenzene (Surr)	*115*		*70 - 130*

Lab Sample ID: 890-4653-A-1-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 53673 — **Prep Batch: 53494**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0990	0.1140		mg/Kg		115	70 - 130	5	35
Toluene	<0.00200	U	0.0990	0.1041		mg/Kg		105	70 - 130	12	35
Ethylbenzene	<0.00200	U	0.0990	0.1078		mg/Kg		109	70 - 130	27	35
m-Xylene & p-Xylene	<0.00399	U	0.198	0.2248		mg/Kg		114	70 - 130	34	35
o-Xylene	<0.00200	U	0.0990	0.1128		mg/Kg		114	70 - 130	35	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*115*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

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

Lab Sample ID: MB 880-53486/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 53447 — **Prep Batch: 53486**

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/16/23 13:04	05/16/23 19:50	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/16/23 13:04	05/16/23 19:50	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/16/23 13:04	05/16/23 19:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*162*	*S1+*	*70 - 130*	*05/16/23 13:04*	*05/16/23 19:50*	*1*
o-Terphenyl	*204*	*S1+*	*70 - 130*	*05/16/23 13:04*	*05/16/23 19:50*	*1*

Lab Sample ID: LCS 880-53486/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 53447 — **Prep Batch: 53486**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	985.1		mg/Kg		99	70 - 130
Diesel Range Organics (Over C10-C28)			1000	1069		mg/Kg		107	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4664-1
SDG: 03C1558191

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

Lab Sample ID: LCS 880-53486/2-A
Matrix: Solid
Analysis Batch: 53447

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 53486

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	115		70 - 130
o-Terphenyl	131	S1+	70 - 130

Lab Sample ID: LCSD 880-53486/3-A
Matrix: Solid
Analysis Batch: 53447

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 53486

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	940.8		mg/Kg		94	70 - 130	5	20
Diesel Range Organics (Over C10-C28)			1000	1043		mg/Kg		104	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	106		70 - 130
o-Terphenyl	123		70 - 130

Lab Sample ID: 890-4662-A-1-E MS
Matrix: Solid
Analysis Batch: 53447

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 53486

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	997	1114		mg/Kg		109	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	997	1206		mg/Kg		119	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	117		70 - 130
o-Terphenyl	121		70 - 130

Lab Sample ID: 890-4662-A-1-F MSD
Matrix: Solid
Analysis Batch: 53447

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 53486

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	999	1145		mg/Kg		112	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	<49.9	U	999	1291		mg/Kg		127	70 - 130	7	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	126		70 - 130
o-Terphenyl	129		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4664-1
SDG: 03C1558191

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-53475/1-A
Matrix: Solid
Analysis Batch: 53583

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/17/23 15:46	1

Lab Sample ID: LCS 880-53475/2-A
Matrix: Solid
Analysis Batch: 53583

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	255.6		mg/Kg		102	90 - 110		

Lab Sample ID: LCSD 880-53475/3-A
Matrix: Solid
Analysis Batch: 53583

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	257.4		mg/Kg		103	90 - 110	1	20

Lab Sample ID: 880-28465-A-3-F MS
Matrix: Solid
Analysis Batch: 53583

Client Sample ID: Matrix Spike
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	606	F1	252	820.2	F1	mg/Kg		85	90 - 110		

QC Association Summary

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4664-1
SDG: 03C1558191

GC VOA

Prep Batch: 53494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4664-1	SS01	Total/NA	Solid	5035	
890-4664-2	SS02	Total/NA	Solid	5035	
890-4664-3	SS03	Total/NA	Solid	5035	
890-4664-4	SS04	Total/NA	Solid	5035	
MB 880-53494/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-53494/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-53494/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4653-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
890-4653-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 53673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4664-1	SS01	Total/NA	Solid	8021B	53494
890-4664-2	SS02	Total/NA	Solid	8021B	53494
890-4664-3	SS03	Total/NA	Solid	8021B	53494
890-4664-4	SS04	Total/NA	Solid	8021B	53494
MB 880-53494/5-A	Method Blank	Total/NA	Solid	8021B	53494
LCS 880-53494/1-A	Lab Control Sample	Total/NA	Solid	8021B	53494
LCSD 880-53494/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	53494
890-4653-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	53494
890-4653-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	53494

Analysis Batch: 53761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4664-1	SS01	Total/NA	Solid	Total BTEX	
890-4664-2	SS02	Total/NA	Solid	Total BTEX	
890-4664-3	SS03	Total/NA	Solid	Total BTEX	
890-4664-4	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 53447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4664-1	SS01	Total/NA	Solid	8015B NM	53486
890-4664-2	SS02	Total/NA	Solid	8015B NM	53486
890-4664-3	SS03	Total/NA	Solid	8015B NM	53486
890-4664-4	SS04	Total/NA	Solid	8015B NM	53486
MB 880-53486/1-A	Method Blank	Total/NA	Solid	8015B NM	53486
LCS 880-53486/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	53486
LCSD 880-53486/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	53486
890-4662-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	53486
890-4662-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	53486

Prep Batch: 53486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4664-1	SS01	Total/NA	Solid	8015NM Prep	
890-4664-2	SS02	Total/NA	Solid	8015NM Prep	
890-4664-3	SS03	Total/NA	Solid	8015NM Prep	
890-4664-4	SS04	Total/NA	Solid	8015NM Prep	
MB 880-53486/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-53486/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	

QC Association Summary

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4664-1
SDG: 03C1558191

GC Semi VOA (Continued)

Prep Batch: 53486 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-53486/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4662-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-4662-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 53582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4664-1	SS01	Total/NA	Solid	8015 NM	
890-4664-2	SS02	Total/NA	Solid	8015 NM	
890-4664-3	SS03	Total/NA	Solid	8015 NM	
890-4664-4	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 53475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4664-1	SS01	Soluble	Solid	DI Leach	
890-4664-2	SS02	Soluble	Solid	DI Leach	
890-4664-3	SS03	Soluble	Solid	DI Leach	
890-4664-4	SS04	Soluble	Solid	DI Leach	
MB 880-53475/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-53475/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-53475/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-28465-A-3-F MS	Matrix Spike	Soluble	Solid	DI Leach	
880-28465-A-3-F MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 53583

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4664-1	SS01	Soluble	Solid	300.0	53475
890-4664-2	SS02	Soluble	Solid	300.0	53475
890-4664-3	SS03	Soluble	Solid	300.0	53475
890-4664-4	SS04	Soluble	Solid	300.0	53475
MB 880-53475/1-A	Method Blank	Soluble	Solid	300.0	53475
LCS 880-53475/2-A	Lab Control Sample	Soluble	Solid	300.0	53475
LCSD 880-53475/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	53475
880-28465-A-3-F MS	Matrix Spike	Soluble	Solid	300.0	53475
880-28465-A-3-F MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	53475

Lab Chronicle

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4664-1
SDG: 03C1558191

Client Sample ID: SS01
Date Collected: 05/12/23 12:55
Date Received: 05/15/23 09:36

Lab Sample ID: 890-4664-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	53494	05/16/23 14:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	53673	05/18/23 22:32	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			53761	05/19/23 10:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			53582	05/17/23 10:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	53486	05/16/23 13:04	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	53447	05/17/23 03:17	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	53475	05/16/23 12:01	KS	EET MID
Soluble	Analysis	300.0		50	50 mL	50 mL	53583	05/17/23 17:55	CH	EET MID

Client Sample ID: SS02
Date Collected: 05/12/23 13:00
Date Received: 05/15/23 09:36

Lab Sample ID: 890-4664-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	53494	05/16/23 14:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	53673	05/18/23 22:52	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			53761	05/19/23 10:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			53582	05/17/23 10:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	53486	05/16/23 13:04	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	53447	05/17/23 03:38	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	53475	05/16/23 12:01	KS	EET MID
Soluble	Analysis	300.0		50	50 mL	50 mL	53583	05/17/23 18:00	CH	EET MID

Client Sample ID: SS03
Date Collected: 05/12/23 13:05
Date Received: 05/15/23 09:36

Lab Sample ID: 890-4664-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	53494	05/16/23 14:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	53673	05/18/23 23:13	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			53761	05/19/23 10:46	SM	EET MID
Total/NA	Analysis	8015 NM		1			53582	05/17/23 10:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	53486	05/16/23 13:04	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	53447	05/17/23 03:59	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	53475	05/16/23 12:01	KS	EET MID
Soluble	Analysis	300.0		100	50 mL	50 mL	53583	05/17/23 18:06	CH	EET MID

Client Sample ID: SS04
Date Collected: 05/12/23 13:10
Date Received: 05/15/23 09:36

Lab Sample ID: 890-4664-4
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			4.99 g	5 mL	53494	05/16/23 14:55	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	53673	05/18/23 23:33	MNR	EET MID
Total/NA	Analysis	Total BTEX		1			53761	05/19/23 10:46	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4664-1
SDG: 03C1558191

Client Sample ID: SS04

Date Collected: 05/12/23 13:10
Date Received: 05/15/23 09:36

Lab Sample ID: 890-4664-4

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			53582	05/17/23 10:58	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	53486	05/16/23 13:04	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	53447	05/17/23 04:19	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	53475	05/16/23 12:01	KS	EET MID
Soluble	Analysis	300.0		50	50 mL	50 mL	53583	05/17/23 18:11	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: Outrider 28 Fed 501H

Job ID: 890-4664-1
SDG: 03C1558191

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: Outrider 28 Fed 501H

Job ID: 890-4664-1
SDG: 03C1558191

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4664-1
SDG: 03C1558191

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4664-1	SS01	Solid	05/12/23 12:55	05/15/23 09:36	0.5'
890-4664-2	SS02	Solid	05/12/23 13:00	05/15/23 09:36	0.5'
890-4664-3	SS03	Solid	05/12/23 13:05	05/15/23 09:36	0.5'
890-4664-4	SS04	Solid	05/12/23 13:10	05/15/23 09:36	0.5'

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Chain of Custody

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

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Work Order No: _____

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

Work Order Comments

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

Project Name:	Outrider 28 Fed 501H	Turn Around	
Project Number:	03C1558191	☑ Routine ☐ Rush	
Project Location:		Due Date:	
Sampler's Name:	Connor Whitman	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	CHLORIDES (EPA: 3000.0)	TPH (8015)	BTEX (8021)
SS01	S	5/12/23	12:55	.5	G	1	✓	✓	✓
SS02			1:00	.5	G	1	✓	✓	✓
SS03			1:05	.5	G	1	✓	✓	✓
SS04			1:10	.5	G	1	✓	✓	✓

Preservative Codes

None: NO DI Water: H_2O
Cool: Cool MeOH: Me
HCL: HC HNO_3: HN
H_2SO_4: H_2 NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Comments

Incident ID:
nAPP2306054654

Cost Center:
2222921001

AFE:

890-4664 Chain of Custody

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	Amanda Stuf	5/15/23 0936			
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4664-1
SDG Number: 03C1558191

Login Number: 4664
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: 890-4664-1
SDG Number: 03C1558191

Login Number: 4664
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 05/16/23 10:43 AM

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

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 5/30/2023 12:16:03 PM

JOB DESCRIPTION

Outrider 28 Fed 501H
SDG NUMBER 03C1558191

JOB NUMBER

890-4711-1

Eurofins Carlsbad
1089 N Canal St.
Carlsbad NM 88220

See page two for job notes and contact information.

my EOL

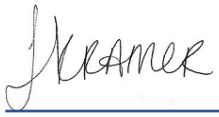
Eurofins Carlsbad

Job Notes

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

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

Authorization



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5/30/2023 12:16:03 PM

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

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Laboratory Job ID: 890-4711-1
SDG: 03C1558191

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Qualifiers

GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
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: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Job ID: 890-4711-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-4711-1

Receipt
The samples were received on 5/23/2023 8:34 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C

Receipt Exceptions
The following samples were received and analyzed from an unpreserved bulk soil jar: PH04 (890-4711-1), PH03 (890-4711-2), PH02 (890-4711-3), PH01 (890-4711-4), SW01 (890-4711-5), SW02 (890-4711-6), FS01 (890-4711-7), FS02 (890-4711-8), FS03 (890-4711-9), FS04 (890-4711-10), FS05 (890-4711-11), FS06 (890-4711-12), FS07 (890-4711-13), FS08 (890-4711-14), FS09 (890-4711-15), FS10 (890-4711-16), FS11 (890-4711-17), FS12 (890-4711-18) and FS13 (890-4711-19).

GC VOA
Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-54106 and analytical batch 880-54208 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

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

GC Semi VOA
Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-54064 and analytical batch 880-54024 was outside the upper control limits.

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

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-54057 and analytical batch 880-54094 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: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Client Sample ID: PH04

Date Collected: 05/22/23 09:10
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

Lab Sample ID: 890-4711-1
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *+	0.00201		mg/Kg		05/24/23 16:22	05/27/23 00:07	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/24/23 16:22	05/27/23 00:07	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/24/23 16:22	05/27/23 00:07	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/24/23 16:22	05/27/23 00:07	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/24/23 16:22	05/27/23 00:07	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/24/23 16:22	05/27/23 00:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*05/24/23 16:22*	*05/27/23 00:07*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*05/24/23 16:22*	*05/27/23 00:07*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			05/30/23 09:08	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			05/25/23 10:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		05/24/23 12:15	05/24/23 21:57	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/24/23 12:15	05/24/23 21:57	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/24/23 12:15	05/24/23 21:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*114*		*70 - 130*	*05/24/23 12:15*	*05/24/23 21:57*	*1*
o-Terphenyl	*121*		*70 - 130*	*05/24/23 12:15*	*05/24/23 21:57*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**108**		4.99		mg/Kg			05/24/23 18:35	1

Client Sample ID: PH03

Date Collected: 05/22/23 09:20
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

Lab Sample ID: 890-4711-2
Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U *+	0.00202		mg/Kg		05/24/23 16:22	05/27/23 00:27	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/24/23 16:22	05/27/23 00:27	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/24/23 16:22	05/27/23 00:27	1
m-Xylene & p-Xylene	<0.00404	U	0.00404		mg/Kg		05/24/23 16:22	05/27/23 00:27	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/24/23 16:22	05/27/23 00:27	1
Xylenes, Total	<0.00404	U	0.00404		mg/Kg		05/24/23 16:22	05/27/23 00:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*05/24/23 16:22*	*05/27/23 00:27*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Client Sample ID: PH03

Date Collected: 05/22/23 09:20
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

Lab Sample ID: 890-4711-2

Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*05/24/23 16:22*	*05/27/23 00:27*	*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			05/30/23 09:08	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/25/23 10:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/24/23 12:15	05/24/23 23:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/24/23 12:15	05/24/23 23:01	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/24/23 12:15	05/24/23 23:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*111*		*70 - 130*	*05/24/23 12:15*	*05/24/23 23:01*	*1*
o-Terphenyl	*115*		*70 - 130*	*05/24/23 12:15*	*05/24/23 23:01*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**90.8**		5.01		mg/Kg			05/24/23 18:51	1

Client Sample ID: PH02

Date Collected: 05/22/23 12:50
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

Lab Sample ID: 890-4711-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *+	0.00199		mg/Kg		05/24/23 16:22	05/27/23 00:48	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/24/23 16:22	05/27/23 00:48	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/24/23 16:22	05/27/23 00:48	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/24/23 16:22	05/27/23 00:48	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/24/23 16:22	05/27/23 00:48	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/24/23 16:22	05/27/23 00:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*05/24/23 16:22*	*05/27/23 00:48*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*05/24/23 16:22*	*05/27/23 00:48*	*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			05/30/23 09:08	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/25/23 10:20	1

Client Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Client Sample ID: PH02

Lab Sample ID: 890-4711-3
Matrix: Solid
Date Collected: 05/22/23 12:50
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

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		05/24/23 12:15	05/24/23 23:23	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/24/23 12:15	05/24/23 23:23	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/24/23 12:15	05/24/23 23:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*05/24/23 12:15*	*05/24/23 23:23*	*1*
o-Terphenyl	*116*		*70 - 130*	*05/24/23 12:15*	*05/24/23 23:23*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**182**		5.03		mg/Kg			05/24/23 18:57	1

Client Sample ID: PH01

Lab Sample ID: 890-4711-4
Matrix: Solid
Date Collected: 05/22/23 12:55
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

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		05/24/23 16:22	05/27/23 01:08	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/24/23 16:22	05/27/23 01:08	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/24/23 16:22	05/27/23 01:08	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/24/23 16:22	05/27/23 01:08	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/24/23 16:22	05/27/23 01:08	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/24/23 16:22	05/27/23 01:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*05/24/23 16:22*	*05/27/23 01:08*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*05/24/23 16:22*	*05/27/23 01:08*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/30/23 09:08	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/25/23 10:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/24/23 12:15	05/24/23 23:44	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/24/23 12:15	05/24/23 23:44	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/24/23 12:15	05/24/23 23:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*05/24/23 12:15*	*05/24/23 23:44*	*1*
o-Terphenyl	*117*		*70 - 130*	*05/24/23 12:15*	*05/24/23 23:44*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Client Sample ID: PH01

Lab Sample ID: 890-4711-4
Matrix: Solid
Date Collected: 05/22/23 12:55
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	151		4.98		mg/Kg			05/24/23 19:02	1

Client Sample ID: SW01

Lab Sample ID: 890-4711-5
Matrix: Solid
Date Collected: 05/22/23 14:35
Date Received: 05/23/23 08:34
Sample Depth: 0-1.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *+	0.00200		mg/Kg		05/24/23 16:22	05/27/23 01:28	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/24/23 16:22	05/27/23 01:28	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/24/23 16:22	05/27/23 01:28	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/24/23 16:22	05/27/23 01:28	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/24/23 16:22	05/27/23 01:28	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/24/23 16:22	05/27/23 01:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*	*05/24/23 16:22*	*05/27/23 01:28*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*05/24/23 16:22*	*05/27/23 01:28*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			05/30/23 09:08	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/25/23 10:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/24/23 12:15	05/25/23 00:05	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/24/23 12:15	05/25/23 00:05	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/24/23 12:15	05/25/23 00:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*102*		*70 - 130*	*05/24/23 12:15*	*05/25/23 00:05*	*1*
o-Terphenyl	*106*		*70 - 130*	*05/24/23 12:15*	*05/25/23 00:05*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	122		4.98		mg/Kg			05/24/23 19:07	1

Client Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Client Sample ID: SW02

Lab Sample ID: 890-4711-6
Matrix: Solid
Date Collected: 05/22/23 14:40
Date Received: 05/23/23 08:34
Sample Depth: 0-1.5'

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		05/24/23 16:22	05/27/23 01:49	1
Toluene	<0.00202	U	0.00202		mg/Kg		05/24/23 16:22	05/27/23 01:49	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		05/24/23 16:22	05/27/23 01:49	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		05/24/23 16:22	05/27/23 01:49	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		05/24/23 16:22	05/27/23 01:49	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		05/24/23 16:22	05/27/23 01:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*05/24/23 16:22*	*05/27/23 01:49*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*05/24/23 16:22*	*05/27/23 01:49*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			05/30/23 09:08	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			05/25/23 10:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		05/24/23 12:15	05/25/23 00:26	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/24/23 12:15	05/25/23 00:26	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/24/23 12:15	05/25/23 00:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*107*		*70 - 130*	*05/24/23 12:15*	*05/25/23 00:26*	*1*
o-Terphenyl	*112*		*70 - 130*	*05/24/23 12:15*	*05/25/23 00:26*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**320**		5.05		mg/Kg			05/24/23 19:23	1

Client Sample ID: FS01

Lab Sample ID: 890-4711-7
Matrix: Solid
Date Collected: 05/22/23 13:05
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *+	0.00200		mg/Kg		05/24/23 16:22	05/27/23 02:09	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/24/23 16:22	05/27/23 02:09	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/24/23 16:22	05/27/23 02:09	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/24/23 16:22	05/27/23 02:09	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/24/23 16:22	05/27/23 02:09	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/24/23 16:22	05/27/23 02:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*05/24/23 16:22*	*05/27/23 02:09*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Client Sample ID: FS01

Lab Sample ID: 890-4711-7
Matrix: Solid

Date Collected: 05/22/23 13:05
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*05/24/23 16:22*	*05/27/23 02:09*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			05/30/23 09:08	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			05/25/23 10:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		05/24/23 12:15	05/25/23 00:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		05/24/23 12:15	05/25/23 00:47	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		05/24/23 12:15	05/25/23 00:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*110*		*70 - 130*	*05/24/23 12:15*	*05/25/23 00:47*	*1*
o-Terphenyl	*116*		*70 - 130*	*05/24/23 12:15*	*05/25/23 00:47*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**136**		5.04	mg/Kg			05/24/23 19:29	1

Client Sample ID: FS02

Lab Sample ID: 890-4711-8
Matrix: Solid

Date Collected: 05/22/23 13:10
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

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		05/24/23 16:22	05/27/23 02:30	1
Toluene	<0.00199	U	0.00199	mg/Kg		05/24/23 16:22	05/27/23 02:30	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		05/24/23 16:22	05/27/23 02:30	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		05/24/23 16:22	05/27/23 02:30	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		05/24/23 16:22	05/27/23 02:30	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		05/24/23 16:22	05/27/23 02:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*05/24/23 16:22*	*05/27/23 02:30*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*05/24/23 16:22*	*05/27/23 02:30*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			05/30/23 09:08	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			05/25/23 10:20	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Client Sample ID: FS02

Lab Sample ID: 890-4711-8
Matrix: Solid
Date Collected: 05/22/23 13:10
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

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		05/24/23 12:15	05/25/23 01:07	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/24/23 12:15	05/25/23 01:07	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/24/23 12:15	05/25/23 01:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*116*		*70 - 130*	*05/24/23 12:15*	*05/25/23 01:07*	*1*
o-Terphenyl	*120*		*70 - 130*	*05/24/23 12:15*	*05/25/23 01:07*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**147**		5.00		mg/Kg			05/24/23 19:34	1

Client Sample ID: FS03

Lab Sample ID: 890-4711-9
Matrix: Solid
Date Collected: 05/22/23 13:15
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

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		05/24/23 16:22	05/27/23 02:50	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/24/23 16:22	05/27/23 02:50	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/24/23 16:22	05/27/23 02:50	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/24/23 16:22	05/27/23 02:50	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/24/23 16:22	05/27/23 02:50	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/24/23 16:22	05/27/23 02:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*05/24/23 16:22*	*05/27/23 02:50*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*05/24/23 16:22*	*05/27/23 02:50*	*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			05/30/23 09:08	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/25/23 10:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/24/23 12:15	05/25/23 01:28	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/24/23 12:15	05/25/23 01:28	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/24/23 12:15	05/25/23 01:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*05/24/23 12:15*	*05/25/23 01:28*	*1*
o-Terphenyl	*118*		*70 - 130*	*05/24/23 12:15*	*05/25/23 01:28*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Client Sample ID: FS03

Lab Sample ID: 890-4711-9
Matrix: Solid
Date Collected: 05/22/23 13:15
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	133		4.95		mg/Kg			05/24/23 19:39	1

Client Sample ID: FS04

Lab Sample ID: 890-4711-10
Matrix: Solid
Date Collected: 05/22/23 13:45
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *+	0.00200		mg/Kg		05/24/23 16:22	05/27/23 03:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/24/23 16:22	05/27/23 03:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/24/23 16:22	05/27/23 03:10	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/24/23 16:22	05/27/23 03:10	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/24/23 16:22	05/27/23 03:10	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/24/23 16:22	05/27/23 03:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*05/24/23 16:22*	*05/27/23 03:10*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*05/24/23 16:22*	*05/27/23 03:10*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			05/30/23 09:08	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/25/23 10:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/24/23 12:15	05/25/23 01:48	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/24/23 12:15	05/25/23 01:48	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/24/23 12:15	05/25/23 01:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*05/24/23 12:15*	*05/25/23 01:48*	*1*
o-Terphenyl	*117*		*70 - 130*	*05/24/23 12:15*	*05/25/23 01:48*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	147		5.04		mg/Kg			05/24/23 19:45	1

Client Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Client Sample ID: FS05

Lab Sample ID: 890-4711-11
Matrix: Solid
Date Collected: 05/22/23 13:50
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *+	0.00201		mg/Kg		05/24/23 16:22	05/27/23 05:00	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/24/23 16:22	05/27/23 05:00	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/24/23 16:22	05/27/23 05:00	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/24/23 16:22	05/27/23 05:00	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/24/23 16:22	05/27/23 05:00	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/24/23 16:22	05/27/23 05:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*85*		*70 - 130*	*05/24/23 16:22*	*05/27/23 05:00*	*1*
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*05/24/23 16:22*	*05/27/23 05:00*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			05/30/23 09:08	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			05/25/23 10:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		05/24/23 12:15	05/25/23 02:30	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		05/24/23 12:15	05/25/23 02:30	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		05/24/23 12:15	05/25/23 02:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*109*		*70 - 130*	*05/24/23 12:15*	*05/25/23 02:30*	*1*
o-Terphenyl	*115*		*70 - 130*	*05/24/23 12:15*	*05/25/23 02:30*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**95.7**	**F1**	5.01		mg/Kg			05/24/23 19:50	1

Client Sample ID: FS06

Lab Sample ID: 890-4711-12
Matrix: Solid
Date Collected: 05/22/23 13:55
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *+	0.00200		mg/Kg		05/24/23 16:22	05/27/23 05:21	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/24/23 16:22	05/27/23 05:21	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/24/23 16:22	05/27/23 05:21	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/24/23 16:22	05/27/23 05:21	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/24/23 16:22	05/27/23 05:21	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/24/23 16:22	05/27/23 05:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*	*05/24/23 16:22*	*05/27/23 05:21*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Client Sample ID: FS06

Lab Sample ID: 890-4711-12
Matrix: Solid

Date Collected: 05/22/23 13:55
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*92*		*70 - 130*	*05/24/23 16:22*	*05/27/23 05:21*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			05/30/23 09:08	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			05/25/23 10:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		05/24/23 12:15	05/25/23 02:50	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		05/24/23 12:15	05/25/23 02:50	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		05/24/23 12:15	05/25/23 02:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*106*		*70 - 130*	*05/24/23 12:15*	*05/25/23 02:50*	*1*
o-Terphenyl	*110*		*70 - 130*	*05/24/23 12:15*	*05/25/23 02:50*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**64.2**		4.96	mg/Kg			05/24/23 20:06	1

Client Sample ID: FS07

Lab Sample ID: 890-4711-13
Matrix: Solid

Date Collected: 05/22/23 14:00
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

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		05/24/23 16:22	05/27/23 05:41	1
Toluene	<0.00199	U	0.00199	mg/Kg		05/24/23 16:22	05/27/23 05:41	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		05/24/23 16:22	05/27/23 05:41	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		05/24/23 16:22	05/27/23 05:41	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		05/24/23 16:22	05/27/23 05:41	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		05/24/23 16:22	05/27/23 05:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*88*		*70 - 130*	*05/24/23 16:22*	*05/27/23 05:41*	*1*
1,4-Difluorobenzene (Surr)	*93*		*70 - 130*	*05/24/23 16:22*	*05/27/23 05:41*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			05/30/23 09:08	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			05/25/23 10:20	1

Client Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Client Sample ID: FS07

Lab Sample ID: 890-4711-13
Matrix: Solid
Date Collected: 05/22/23 14:00
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

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		05/24/23 12:15	05/25/23 03:11	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/24/23 12:15	05/25/23 03:11	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/24/23 12:15	05/25/23 03:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*05/24/23 12:15*	*05/25/23 03:11*	*1*
o-Terphenyl	*114*		*70 - 130*	*05/24/23 12:15*	*05/25/23 03:11*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**121**		5.04		mg/Kg			05/24/23 20:11	1

Client Sample ID: FS08

Lab Sample ID: 890-4711-14
Matrix: Solid
Date Collected: 05/22/23 14:05
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

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		05/24/23 16:22	05/27/23 06:02	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/24/23 16:22	05/27/23 06:02	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/24/23 16:22	05/27/23 06:02	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/24/23 16:22	05/27/23 06:02	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/24/23 16:22	05/27/23 06:02	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/24/23 16:22	05/27/23 06:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*05/24/23 16:22*	*05/27/23 06:02*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*05/24/23 16:22*	*05/27/23 06:02*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/30/23 09:08	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/25/23 10:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/24/23 12:15	05/25/23 03:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/24/23 12:15	05/25/23 03:31	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/24/23 12:15	05/25/23 03:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*05/24/23 12:15*	*05/25/23 03:31*	*1*
o-Terphenyl	*114*		*70 - 130*	*05/24/23 12:15*	*05/25/23 03:31*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Client Sample ID: FS08

Lab Sample ID: 890-4711-14
Matrix: Solid
Date Collected: 05/22/23 14:05
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	167		5.02		mg/Kg			05/24/23 20:28	1

Client Sample ID: FS09

Lab Sample ID: 890-4711-15
Matrix: Solid
Date Collected: 05/22/23 14:10
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *+	0.00200		mg/Kg		05/24/23 16:22	05/27/23 06:22	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/24/23 16:22	05/27/23 06:22	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/24/23 16:22	05/27/23 06:22	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/24/23 16:22	05/27/23 06:22	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/24/23 16:22	05/27/23 06:22	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/24/23 16:22	05/27/23 06:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*05/24/23 16:22*	*05/27/23 06:22*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*05/24/23 16:22*	*05/27/23 06:22*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			05/30/23 09:08	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/25/23 10:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/24/23 12:15	05/25/23 03:52	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/24/23 12:15	05/25/23 03:52	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/24/23 12:15	05/25/23 03:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*05/24/23 12:15*	*05/25/23 03:52*	*1*
o-Terphenyl	*118*		*70 - 130*	*05/24/23 12:15*	*05/25/23 03:52*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	435		4.97		mg/Kg			05/24/23 20:33	1

Client Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Client Sample ID: FS10

Lab Sample ID: 890-4711-16
Matrix: Solid
Date Collected: 05/22/23 14:15
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *+	0.00201		mg/Kg		05/24/23 16:22	05/27/23 06:42	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/24/23 16:22	05/27/23 06:42	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/24/23 16:22	05/27/23 06:42	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/24/23 16:22	05/27/23 06:42	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/24/23 16:22	05/27/23 06:42	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/24/23 16:22	05/27/23 06:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*70 - 130*	*05/24/23 16:22*	*05/27/23 06:42*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*05/24/23 16:22*	*05/27/23 06:42*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			05/30/23 09:08	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/25/23 10:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/24/23 12:15	05/25/23 04:12	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/24/23 12:15	05/25/23 04:12	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/24/23 12:15	05/25/23 04:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*05/24/23 12:15*	*05/25/23 04:12*	*1*
o-Terphenyl	*119*		*70 - 130*	*05/24/23 12:15*	*05/25/23 04:12*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**174**		4.95		mg/Kg			05/24/23 20:38	1

Client Sample ID: FS11

Lab Sample ID: 890-4711-17
Matrix: Solid
Date Collected: 05/22/23 14:20
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U *+	0.00200		mg/Kg		05/24/23 16:22	05/27/23 07:03	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/24/23 16:22	05/27/23 07:03	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/24/23 16:22	05/27/23 07:03	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		05/24/23 16:22	05/27/23 07:03	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/24/23 16:22	05/27/23 07:03	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		05/24/23 16:22	05/27/23 07:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*94*		*70 - 130*	*05/24/23 16:22*	*05/27/23 07:03*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Client Sample ID: FS11

Lab Sample ID: 890-4711-17
Matrix: Solid

Date Collected: 05/22/23 14:20
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*05/24/23 16:22*	*05/27/23 07:03*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			05/30/23 09:08	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			05/25/23 10:20	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		05/24/23 12:15	05/25/23 04:32	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		05/24/23 12:15	05/25/23 04:32	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		05/24/23 12:15	05/25/23 04:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*05/24/23 12:15*	*05/25/23 04:32*	*1*
o-Terphenyl	*121*		*70 - 130*	*05/24/23 12:15*	*05/25/23 04:32*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**192**		4.96	mg/Kg			05/24/23 20:44	1

Client Sample ID: FS12

Lab Sample ID: 890-4711-18
Matrix: Solid

Date Collected: 05/22/23 14:25
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

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		05/24/23 16:22	05/27/23 07:23	1
Toluene	<0.00199	U	0.00199	mg/Kg		05/24/23 16:22	05/27/23 07:23	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		05/24/23 16:22	05/27/23 07:23	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		05/24/23 16:22	05/27/23 07:23	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		05/24/23 16:22	05/27/23 07:23	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		05/24/23 16:22	05/27/23 07:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*70 - 130*	*05/24/23 16:22*	*05/27/23 07:23*	*1*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*	*05/24/23 16:22*	*05/27/23 07:23*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			05/30/23 09:08	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			05/25/23 10:20	1

Client Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Client Sample ID: FS12

Lab Sample ID: 890-4711-18
Matrix: Solid
Date Collected: 05/22/23 14:25
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

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		05/24/23 12:15	05/25/23 04:53	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/24/23 12:15	05/25/23 04:53	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/24/23 12:15	05/25/23 04:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*112*		*70 - 130*	*05/24/23 12:15*	*05/25/23 04:53*	*1*
o-Terphenyl	*119*		*70 - 130*	*05/24/23 12:15*	*05/25/23 04:53*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**758**		4.98		mg/Kg			05/24/23 20:49	1

Client Sample ID: FS13

Lab Sample ID: 890-4711-19
Matrix: Solid
Date Collected: 05/22/23 14:30
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

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		05/24/23 16:22	05/27/23 07:44	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/24/23 16:22	05/27/23 07:44	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/24/23 16:22	05/27/23 07:44	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/24/23 16:22	05/27/23 07:44	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/24/23 16:22	05/27/23 07:44	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/24/23 16:22	05/27/23 07:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*05/24/23 16:22*	*05/27/23 07:44*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*05/24/23 16:22*	*05/27/23 07:44*	*1*

Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/30/23 09:08	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/25/23 10:20	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/24/23 12:15	05/25/23 05:13	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/24/23 12:15	05/25/23 05:13	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/24/23 12:15	05/25/23 05:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*111*		*70 - 130*	*05/24/23 12:15*	*05/25/23 05:13*	*1*
o-Terphenyl	*118*		*70 - 130*	*05/24/23 12:15*	*05/25/23 05:13*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Client Sample ID: FS13
Date Collected: 05/22/23 14:30
Date Received: 05/23/23 08:34
Sample Depth: 1.5'

Lab Sample ID: 890-4711-19
Matrix: Solid

Method: EPA 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	375		5.00		mg/Kg			05/24/23 20:54	1

Surrogate Summary

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-4711-1	PH04	83	95
890-4711-1 MS	PH04	92	100
890-4711-1 MSD	PH04	93	101
890-4711-2	PH03	88	96
890-4711-3	PH02	95	95
890-4711-4	PH01	90	94
890-4711-5	SW01	92	97
890-4711-6	SW02	99	95
890-4711-7	FS01	97	101
890-4711-8	FS02	99	97
890-4711-9	FS03	102	84
890-4711-10	FS04	103	92
890-4711-11	FS05	85	92
890-4711-12	FS06	82	92
890-4711-13	FS07	88	93
890-4711-14	FS08	93	95
890-4711-15	FS09	101	96
890-4711-16	FS10	96	97
890-4711-17	FS11	94	98
890-4711-18	FS12	107	95
890-4711-19	FS13	97	101
LCS 880-54106/1-A	Lab Control Sample	92	95
LCSD 880-54106/2-A	Lab Control Sample Dup	93	118
MB 880-54083/5-A	Method Blank	87	104
MB 880-54106/5-A	Method Blank	93	98

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-4711-1	PH04	114	121
890-4711-1 MS	PH04	105	100
890-4711-1 MSD	PH04	113	107
890-4711-2	PH03	111	115
890-4711-3	PH02	111	116
890-4711-4	PH01	112	117
890-4711-5	SW01	102	106
890-4711-6	SW02	107	112
890-4711-7	FS01	110	116
890-4711-8	FS02	116	120
890-4711-9	FS03	110	118
890-4711-10	FS04	112	117
890-4711-11	FS05	109	115
890-4711-12	FS06	106	110

Surrogate Summary

Client: Ensolum Job ID: 890-4711-1
Project/Site: Outrider 28 Fed 501H SDG: 03C1558191

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-4711-13	FS07	110	114										
890-4711-14	FS08	110	114										
890-4711-15	FS09	111	118										
890-4711-16	FS10	110	119										
890-4711-17	FS11	112	121										
890-4711-18	FS12	112	119										
890-4711-19	FS13	111	118										
LCS 880-54064/2-A	Lab Control Sample	86	82										
LCSD 880-54064/3-A	Lab Control Sample Dup	86	84										
MB 880-54064/1-A	Method Blank	169 S1+	181 S1+										

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-54083/5-A
Matrix: Solid
Analysis Batch: 54208

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 54083

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/24/23 13:32	05/26/23 12:02	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/24/23 13:32	05/26/23 12:02	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/24/23 13:32	05/26/23 12:02	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/24/23 13:32	05/26/23 12:02	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/24/23 13:32	05/26/23 12:02	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/24/23 13:32	05/26/23 12:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*70 - 130*	*05/24/23 13:32*	*05/26/23 12:02*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*05/24/23 13:32*	*05/26/23 12:02*	*1*

Lab Sample ID: MB 880-54106/5-A
Matrix: Solid
Analysis Batch: 54208

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 54106

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/24/23 16:22	05/26/23 23:38	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/24/23 16:22	05/26/23 23:38	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/24/23 16:22	05/26/23 23:38	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/24/23 16:22	05/26/23 23:38	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/24/23 16:22	05/26/23 23:38	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/24/23 16:22	05/26/23 23:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*	*05/24/23 16:22*	*05/26/23 23:38*	*1*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*	*05/24/23 16:22*	*05/26/23 23:38*	*1*

Lab Sample ID: LCS 880-54106/1-A
Matrix: Solid
Analysis Batch: 54208

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 54106

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.1347	*+	mg/Kg		135	70 - 130		
Toluene			0.100	0.1126		mg/Kg		113	70 - 130		
Ethylbenzene			0.100	0.1119		mg/Kg		112	70 - 130		
m-Xylene & p-Xylene			0.200	0.2200		mg/Kg		110	70 - 130		
o-Xylene			0.100	0.09833		mg/Kg		98	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

Lab Sample ID: LCSD 880-54106/2-A
Matrix: Solid
Analysis Batch: 54208

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 54106

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1464	*+	mg/Kg		146	70 - 130	8	35

QC Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

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

Lab Sample ID: LCSD 880-54106/2-A
Matrix: Solid
Analysis Batch: 54208

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 54106

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene			0.100	0.1194		mg/Kg		119	70 - 130	6	35
Ethylbenzene			0.100	0.1123		mg/Kg		112	70 - 130	0	35
m-Xylene & p-Xylene			0.200	0.2245		mg/Kg		112	70 - 130	2	35
o-Xylene			0.100	0.1025		mg/Kg		103	70 - 130	4	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*

Lab Sample ID: 890-4711-1 MS
Matrix: Solid
Analysis Batch: 54208

Client Sample ID: PH04
Prep Type: Total/NA
Prep Batch: 54106

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U *+	0.0998	0.1293		mg/Kg		130	70 - 130
Toluene	<0.00201	U	0.0998	0.1087		mg/Kg		108	70 - 130
Ethylbenzene	<0.00201	U	0.0998	0.1031		mg/Kg		103	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.200	0.2005		mg/Kg		100	70 - 130
o-Xylene	<0.00201	U	0.0998	0.08897		mg/Kg		89	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*92*		*70 - 130*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*

Lab Sample ID: 890-4711-1 MSD
Matrix: Solid
Analysis Batch: 54208

Client Sample ID: PH04
Prep Type: Total/NA
Prep Batch: 54106

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U *+	0.100	0.1225		mg/Kg		122	70 - 130	5	35
Toluene	<0.00201	U	0.100	0.1038		mg/Kg		103	70 - 130	5	35
Ethylbenzene	<0.00201	U	0.100	0.09474		mg/Kg		95	70 - 130	8	35
m-Xylene & p-Xylene	<0.00402	U	0.200	0.1908		mg/Kg		95	70 - 130	5	35
o-Xylene	<0.00201	U	0.100	0.08602		mg/Kg		86	70 - 130	3	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*93*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

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

Lab Sample ID: MB 880-54064/1-A
Matrix: Solid
Analysis Batch: 54024

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 54064

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/24/23 12:15	05/24/23 20:53	1

QC Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

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

Lab Sample ID: MB 880-54064/1-A
Matrix: Solid
Analysis Batch: 54024

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 54064

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/24/23 12:15	05/24/23 20:53	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/24/23 12:15	05/24/23 20:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*169*	*S1+*	*70 - 130*	*05/24/23 12:15*	*05/24/23 20:53*	*1*
o-Terphenyl	*181*	*S1+*	*70 - 130*	*05/24/23 12:15*	*05/24/23 20:53*	*1*

Lab Sample ID: LCS 880-54064/2-A
Matrix: Solid
Analysis Batch: 54024

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 54064

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	973.2		mg/Kg		97	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	984.0		mg/Kg		98	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctane	*86*		*70 - 130*
o-Terphenyl	*82*		*70 - 130*

Lab Sample ID: LCSD 880-54064/3-A
Matrix: Solid
Analysis Batch: 54024

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 54064

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	958.6		mg/Kg		96	70 - 130	2	20
Diesel Range Organics (Over C10-C28)			1000	1005		mg/Kg		100	70 - 130	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1-Chlorooctane	*86*		*70 - 130*
o-Terphenyl	*84*		*70 - 130*

Lab Sample ID: 890-4711-1 MS
Matrix: Solid
Analysis Batch: 54024

Client Sample ID: PH04
Prep Type: Total/NA
Prep Batch: 54064

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	999	970.9		mg/Kg		95	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.8	U	999	934.2		mg/Kg		91	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*105*		*70 - 130*
o-Terphenyl	*100*		*70 - 130*

QC Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

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

Lab Sample ID: 890-4711-1 MSD — **Client Sample ID: PH04**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 54024 — **Prep Batch: 54064**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	997	1025		mg/Kg		100	70 - 130	5	20
Diesel Range Organics (Over C10-C28)	<49.8	U	997	1015		mg/Kg		99	70 - 130	8	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*113*		*70 - 130*
o-Terphenyl	*107*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-54057/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 54094

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/24/23 18:19	1

Lab Sample ID: LCS 880-54057/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 54094

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	257.2		mg/Kg		103	90 - 110		

Lab Sample ID: LCSD 880-54057/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 54094

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride			250	261.9		mg/Kg		105	90 - 110	2	20

Lab Sample ID: 890-4711-1 MS — **Client Sample ID: PH04**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 54094

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	108		250	350.8		mg/Kg		97	90 - 110		

Lab Sample ID: 890-4711-1 MSD — **Client Sample ID: PH04**
Matrix: Solid — **Prep Type: Soluble**
Analysis Batch: 54094

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	108		250	353.7		mg/Kg		98	90 - 110	1	20

QC Sample Results

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-4711-11 MS
Matrix: Solid
Analysis Batch: 54094

Client Sample ID: FS05
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	95.7	F1	251	378.5	F1	mg/Kg		113	90 - 110		

Lab Sample ID: 890-4711-11 MSD
Matrix: Solid
Analysis Batch: 54094

Client Sample ID: FS05
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	95.7	F1	251	378.2	F1	mg/Kg		113	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

GC VOA

Prep Batch: 54083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-54083/5-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 54106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4711-1	PH04	Total/NA	Solid	5035	
890-4711-2	PH03	Total/NA	Solid	5035	
890-4711-3	PH02	Total/NA	Solid	5035	
890-4711-4	PH01	Total/NA	Solid	5035	
890-4711-5	SW01	Total/NA	Solid	5035	
890-4711-6	SW02	Total/NA	Solid	5035	
890-4711-7	FS01	Total/NA	Solid	5035	
890-4711-8	FS02	Total/NA	Solid	5035	
890-4711-9	FS03	Total/NA	Solid	5035	
890-4711-10	FS04	Total/NA	Solid	5035	
890-4711-11	FS05	Total/NA	Solid	5035	
890-4711-12	FS06	Total/NA	Solid	5035	
890-4711-13	FS07	Total/NA	Solid	5035	
890-4711-14	FS08	Total/NA	Solid	5035	
890-4711-15	FS09	Total/NA	Solid	5035	
890-4711-16	FS10	Total/NA	Solid	5035	
890-4711-17	FS11	Total/NA	Solid	5035	
890-4711-18	FS12	Total/NA	Solid	5035	
890-4711-19	FS13	Total/NA	Solid	5035	
MB 880-54106/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-54106/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-54106/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-4711-1 MS	PH04	Total/NA	Solid	5035	
890-4711-1 MSD	PH04	Total/NA	Solid	5035	

Analysis Batch: 54208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4711-1	PH04	Total/NA	Solid	8021B	54106
890-4711-2	PH03	Total/NA	Solid	8021B	54106
890-4711-3	PH02	Total/NA	Solid	8021B	54106
890-4711-4	PH01	Total/NA	Solid	8021B	54106
890-4711-5	SW01	Total/NA	Solid	8021B	54106
890-4711-6	SW02	Total/NA	Solid	8021B	54106
890-4711-7	FS01	Total/NA	Solid	8021B	54106
890-4711-8	FS02	Total/NA	Solid	8021B	54106
890-4711-9	FS03	Total/NA	Solid	8021B	54106
890-4711-10	FS04	Total/NA	Solid	8021B	54106
890-4711-11	FS05	Total/NA	Solid	8021B	54106
890-4711-12	FS06	Total/NA	Solid	8021B	54106
890-4711-13	FS07	Total/NA	Solid	8021B	54106
890-4711-14	FS08	Total/NA	Solid	8021B	54106
890-4711-15	FS09	Total/NA	Solid	8021B	54106
890-4711-16	FS10	Total/NA	Solid	8021B	54106
890-4711-17	FS11	Total/NA	Solid	8021B	54106
890-4711-18	FS12	Total/NA	Solid	8021B	54106
890-4711-19	FS13	Total/NA	Solid	8021B	54106
MB 880-54083/5-A	Method Blank	Total/NA	Solid	8021B	54083

QC Association Summary

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

GC VOA (Continued)

Analysis Batch: 54208 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-54106/5-A	Method Blank	Total/NA	Solid	8021B	54106
LCS 880-54106/1-A	Lab Control Sample	Total/NA	Solid	8021B	54106
LCSD 880-54106/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	54106
890-4711-1 MS	PH04	Total/NA	Solid	8021B	54106
890-4711-1 MSD	PH04	Total/NA	Solid	8021B	54106

Analysis Batch: 54350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4711-1	PH04	Total/NA	Solid	Total BTEX	
890-4711-2	PH03	Total/NA	Solid	Total BTEX	
890-4711-3	PH02	Total/NA	Solid	Total BTEX	
890-4711-4	PH01	Total/NA	Solid	Total BTEX	
890-4711-5	SW01	Total/NA	Solid	Total BTEX	
890-4711-6	SW02	Total/NA	Solid	Total BTEX	
890-4711-7	FS01	Total/NA	Solid	Total BTEX	
890-4711-8	FS02	Total/NA	Solid	Total BTEX	
890-4711-9	FS03	Total/NA	Solid	Total BTEX	
890-4711-10	FS04	Total/NA	Solid	Total BTEX	
890-4711-11	FS05	Total/NA	Solid	Total BTEX	
890-4711-12	FS06	Total/NA	Solid	Total BTEX	
890-4711-13	FS07	Total/NA	Solid	Total BTEX	
890-4711-14	FS08	Total/NA	Solid	Total BTEX	
890-4711-15	FS09	Total/NA	Solid	Total BTEX	
890-4711-16	FS10	Total/NA	Solid	Total BTEX	
890-4711-17	FS11	Total/NA	Solid	Total BTEX	
890-4711-18	FS12	Total/NA	Solid	Total BTEX	
890-4711-19	FS13	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 54024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4711-1	PH04	Total/NA	Solid	8015B NM	54064
890-4711-2	PH03	Total/NA	Solid	8015B NM	54064
890-4711-3	PH02	Total/NA	Solid	8015B NM	54064
890-4711-4	PH01	Total/NA	Solid	8015B NM	54064
890-4711-5	SW01	Total/NA	Solid	8015B NM	54064
890-4711-6	SW02	Total/NA	Solid	8015B NM	54064
890-4711-7	FS01	Total/NA	Solid	8015B NM	54064
890-4711-8	FS02	Total/NA	Solid	8015B NM	54064
890-4711-9	FS03	Total/NA	Solid	8015B NM	54064
890-4711-10	FS04	Total/NA	Solid	8015B NM	54064
890-4711-11	FS05	Total/NA	Solid	8015B NM	54064
890-4711-12	FS06	Total/NA	Solid	8015B NM	54064
890-4711-13	FS07	Total/NA	Solid	8015B NM	54064
890-4711-14	FS08	Total/NA	Solid	8015B NM	54064
890-4711-15	FS09	Total/NA	Solid	8015B NM	54064
890-4711-16	FS10	Total/NA	Solid	8015B NM	54064
890-4711-17	FS11	Total/NA	Solid	8015B NM	54064
890-4711-18	FS12	Total/NA	Solid	8015B NM	54064
890-4711-19	FS13	Total/NA	Solid	8015B NM	54064

QC Association Summary

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

GC Semi VOA (Continued)

Analysis Batch: 54024 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-54064/1-A	Method Blank	Total/NA	Solid	8015B NM	54064
LCS 880-54064/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	54064
LCSD 880-54064/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	54064
890-4711-1 MS	PH04	Total/NA	Solid	8015B NM	54064
890-4711-1 MSD	PH04	Total/NA	Solid	8015B NM	54064

Prep Batch: 54064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4711-1	PH04	Total/NA	Solid	8015NM Prep	
890-4711-2	PH03	Total/NA	Solid	8015NM Prep	
890-4711-3	PH02	Total/NA	Solid	8015NM Prep	
890-4711-4	PH01	Total/NA	Solid	8015NM Prep	
890-4711-5	SW01	Total/NA	Solid	8015NM Prep	
890-4711-6	SW02	Total/NA	Solid	8015NM Prep	
890-4711-7	FS01	Total/NA	Solid	8015NM Prep	
890-4711-8	FS02	Total/NA	Solid	8015NM Prep	
890-4711-9	FS03	Total/NA	Solid	8015NM Prep	
890-4711-10	FS04	Total/NA	Solid	8015NM Prep	
890-4711-11	FS05	Total/NA	Solid	8015NM Prep	
890-4711-12	FS06	Total/NA	Solid	8015NM Prep	
890-4711-13	FS07	Total/NA	Solid	8015NM Prep	
890-4711-14	FS08	Total/NA	Solid	8015NM Prep	
890-4711-15	FS09	Total/NA	Solid	8015NM Prep	
890-4711-16	FS10	Total/NA	Solid	8015NM Prep	
890-4711-17	FS11	Total/NA	Solid	8015NM Prep	
890-4711-18	FS12	Total/NA	Solid	8015NM Prep	
890-4711-19	FS13	Total/NA	Solid	8015NM Prep	
MB 880-54064/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-54064/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-54064/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-4711-1 MS	PH04	Total/NA	Solid	8015NM Prep	
890-4711-1 MSD	PH04	Total/NA	Solid	8015NM Prep	

Analysis Batch: 54158

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4711-1	PH04	Total/NA	Solid	8015 NM	
890-4711-2	PH03	Total/NA	Solid	8015 NM	
890-4711-3	PH02	Total/NA	Solid	8015 NM	
890-4711-4	PH01	Total/NA	Solid	8015 NM	
890-4711-5	SW01	Total/NA	Solid	8015 NM	
890-4711-6	SW02	Total/NA	Solid	8015 NM	
890-4711-7	FS01	Total/NA	Solid	8015 NM	
890-4711-8	FS02	Total/NA	Solid	8015 NM	
890-4711-9	FS03	Total/NA	Solid	8015 NM	
890-4711-10	FS04	Total/NA	Solid	8015 NM	
890-4711-11	FS05	Total/NA	Solid	8015 NM	
890-4711-12	FS06	Total/NA	Solid	8015 NM	
890-4711-13	FS07	Total/NA	Solid	8015 NM	
890-4711-14	FS08	Total/NA	Solid	8015 NM	
890-4711-15	FS09	Total/NA	Solid	8015 NM	
890-4711-16	FS10	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

GC Semi VOA (Continued)

Analysis Batch: 54158 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4711-17	FS11	Total/NA	Solid	8015 NM	
890-4711-18	FS12	Total/NA	Solid	8015 NM	
890-4711-19	FS13	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 54057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4711-1	PH04	Soluble	Solid	DI Leach	
890-4711-2	PH03	Soluble	Solid	DI Leach	
890-4711-3	PH02	Soluble	Solid	DI Leach	
890-4711-4	PH01	Soluble	Solid	DI Leach	
890-4711-5	SW01	Soluble	Solid	DI Leach	
890-4711-6	SW02	Soluble	Solid	DI Leach	
890-4711-7	FS01	Soluble	Solid	DI Leach	
890-4711-8	FS02	Soluble	Solid	DI Leach	
890-4711-9	FS03	Soluble	Solid	DI Leach	
890-4711-10	FS04	Soluble	Solid	DI Leach	
890-4711-11	FS05	Soluble	Solid	DI Leach	
890-4711-12	FS06	Soluble	Solid	DI Leach	
890-4711-13	FS07	Soluble	Solid	DI Leach	
890-4711-14	FS08	Soluble	Solid	DI Leach	
890-4711-15	FS09	Soluble	Solid	DI Leach	
890-4711-16	FS10	Soluble	Solid	DI Leach	
890-4711-17	FS11	Soluble	Solid	DI Leach	
890-4711-18	FS12	Soluble	Solid	DI Leach	
890-4711-19	FS13	Soluble	Solid	DI Leach	
MB 880-54057/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-54057/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-54057/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-4711-1 MS	PH04	Soluble	Solid	DI Leach	
890-4711-1 MSD	PH04	Soluble	Solid	DI Leach	
890-4711-11 MS	FS05	Soluble	Solid	DI Leach	
890-4711-11 MSD	FS05	Soluble	Solid	DI Leach	

Analysis Batch: 54094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4711-1	PH04	Soluble	Solid	300.0	54057
890-4711-2	PH03	Soluble	Solid	300.0	54057
890-4711-3	PH02	Soluble	Solid	300.0	54057
890-4711-4	PH01	Soluble	Solid	300.0	54057
890-4711-5	SW01	Soluble	Solid	300.0	54057
890-4711-6	SW02	Soluble	Solid	300.0	54057
890-4711-7	FS01	Soluble	Solid	300.0	54057
890-4711-8	FS02	Soluble	Solid	300.0	54057
890-4711-9	FS03	Soluble	Solid	300.0	54057
890-4711-10	FS04	Soluble	Solid	300.0	54057
890-4711-11	FS05	Soluble	Solid	300.0	54057
890-4711-12	FS06	Soluble	Solid	300.0	54057
890-4711-13	FS07	Soluble	Solid	300.0	54057
890-4711-14	FS08	Soluble	Solid	300.0	54057

QC Association Summary

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

HPLC/IC (Continued)

Analysis Batch: 54094 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-4711-15	FS09	Soluble	Solid	300.0	54057
890-4711-16	FS10	Soluble	Solid	300.0	54057
890-4711-17	FS11	Soluble	Solid	300.0	54057
890-4711-18	FS12	Soluble	Solid	300.0	54057
890-4711-19	FS13	Soluble	Solid	300.0	54057
MB 880-54057/1-A	Method Blank	Soluble	Solid	300.0	54057
LCS 880-54057/2-A	Lab Control Sample	Soluble	Solid	300.0	54057
LCSD 880-54057/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	54057
890-4711-1 MS	PH04	Soluble	Solid	300.0	54057
890-4711-1 MSD	PH04	Soluble	Solid	300.0	54057
890-4711-11 MS	FS05	Soluble	Solid	300.0	54057
890-4711-11 MSD	FS05	Soluble	Solid	300.0	54057

Lab Chronicle

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Client Sample ID: PH04

Date Collected: 05/22/23 09:10
Date Received: 05/23/23 08:34

Lab Sample ID: 890-4711-1
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			4.97 g	5 mL	54106	05/24/23 16:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54208	05/27/23 00:07	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			54350	05/30/23 09:08	AJ	EET MID
Total/NA	Analysis	8015 NM		1			54158	05/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	54064	05/24/23 12:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54024	05/24/23 21:57	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	54057	05/24/23 11:20	KS	EET MID
Soluble	Analysis	300.0		1			54094	05/24/23 18:35	CH	EET MID

Client Sample ID: PH03

Date Collected: 05/22/23 09:20
Date Received: 05/23/23 08:34

Lab Sample ID: 890-4711-2
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			4.95 g	5 mL	54106	05/24/23 16:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54208	05/27/23 00:27	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			54350	05/30/23 09:08	AJ	EET MID
Total/NA	Analysis	8015 NM		1			54158	05/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	54064	05/24/23 12:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54024	05/24/23 23:01	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	54057	05/24/23 11:20	KS	EET MID
Soluble	Analysis	300.0		1			54094	05/24/23 18:51	CH	EET MID

Client Sample ID: PH02

Date Collected: 05/22/23 12:50
Date Received: 05/23/23 08:34

Lab Sample ID: 890-4711-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	54106	05/24/23 16:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54208	05/27/23 00:48	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			54350	05/30/23 09:08	AJ	EET MID
Total/NA	Analysis	8015 NM		1			54158	05/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	54064	05/24/23 12:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54024	05/24/23 23:23	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	54057	05/24/23 11:20	KS	EET MID
Soluble	Analysis	300.0		1			54094	05/24/23 18:57	CH	EET MID

Client Sample ID: PH01

Date Collected: 05/22/23 12:55
Date Received: 05/23/23 08:34

Lab Sample ID: 890-4711-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	54106	05/24/23 16:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54208	05/27/23 01:08	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			54350	05/30/23 09:08	AJ	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Client Sample ID: PH01
Date Collected: 05/22/23 12:55
Date Received: 05/23/23 08:34

Lab Sample ID: 890-4711-4
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			54158	05/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	54064	05/24/23 12:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54024	05/24/23 23:44	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	54057	05/24/23 11:20	KS	EET MID
Soluble	Analysis	300.0		1			54094	05/24/23 19:02	CH	EET MID

Client Sample ID: SW01
Date Collected: 05/22/23 14:35
Date Received: 05/23/23 08:34

Lab Sample ID: 890-4711-5
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			5.01 g	5 mL	54106	05/24/23 16:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54208	05/27/23 01:28	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			54350	05/30/23 09:08	AJ	EET MID
Total/NA	Analysis	8015 NM		1			54158	05/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	54064	05/24/23 12:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54024	05/25/23 00:05	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	54057	05/24/23 11:20	KS	EET MID
Soluble	Analysis	300.0		1			54094	05/24/23 19:07	CH	EET MID

Client Sample ID: SW02
Date Collected: 05/22/23 14:40
Date Received: 05/23/23 08:34

Lab Sample ID: 890-4711-6
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			4.96 g	5 mL	54106	05/24/23 16:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54208	05/27/23 01:49	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			54350	05/30/23 09:08	AJ	EET MID
Total/NA	Analysis	8015 NM		1			54158	05/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	54064	05/24/23 12:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54024	05/25/23 00:26	SM	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	54057	05/24/23 11:20	KS	EET MID
Soluble	Analysis	300.0		1			54094	05/24/23 19:23	CH	EET MID

Client Sample ID: FS01
Date Collected: 05/22/23 13:05
Date Received: 05/23/23 08:34

Lab Sample ID: 890-4711-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	54106	05/24/23 16:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54208	05/27/23 02:09	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			54350	05/30/23 09:08	AJ	EET MID
Total/NA	Analysis	8015 NM		1			54158	05/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	54064	05/24/23 12:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54024	05/25/23 00:47	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Client Sample ID: FS01
Date Collected: 05/22/23 13:05
Date Received: 05/23/23 08:34

Lab Sample ID: 890-4711-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	54057	05/24/23 11:20	KS	EET MID
Soluble	Analysis	300.0		1			54094	05/24/23 19:29	CH	EET MID

Client Sample ID: FS02
Date Collected: 05/22/23 13:10
Date Received: 05/23/23 08:34

Lab Sample ID: 890-4711-8
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	54106	05/24/23 16:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54208	05/27/23 02:30	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			54350	05/30/23 09:08	AJ	EET MID
Total/NA	Analysis	8015 NM		1			54158	05/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	54064	05/24/23 12:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54024	05/25/23 01:07	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	54057	05/24/23 11:20	KS	EET MID
Soluble	Analysis	300.0		1			54094	05/24/23 19:34	CH	EET MID

Client Sample ID: FS03
Date Collected: 05/22/23 13:15
Date Received: 05/23/23 08:34

Lab Sample ID: 890-4711-9
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			5.03 g	5 mL	54106	05/24/23 16:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54208	05/27/23 02:50	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			54350	05/30/23 09:08	AJ	EET MID
Total/NA	Analysis	8015 NM		1			54158	05/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	54064	05/24/23 12:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54024	05/25/23 01:28	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	54057	05/24/23 11:20	KS	EET MID
Soluble	Analysis	300.0		1			54094	05/24/23 19:39	CH	EET MID

Client Sample ID: FS04
Date Collected: 05/22/23 13:45
Date Received: 05/23/23 08:34

Lab Sample ID: 890-4711-10
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			5.01 g	5 mL	54106	05/24/23 16:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54208	05/27/23 03:10	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			54350	05/30/23 09:08	AJ	EET MID
Total/NA	Analysis	8015 NM		1			54158	05/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	54064	05/24/23 12:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54024	05/25/23 01:48	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	54057	05/24/23 11:20	KS	EET MID
Soluble	Analysis	300.0		1			54094	05/24/23 19:45	CH	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Client Sample ID: FS05

Lab Sample ID: 890-4711-11
Matrix: Solid
Date Collected: 05/22/23 13:50
Date Received: 05/23/23 08:34

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	54106	05/24/23 16:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54208	05/27/23 05:00	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			54350	05/30/23 09:08	AJ	EET MID
Total/NA	Analysis	8015 NM		1			54158	05/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	54064	05/24/23 12:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54024	05/25/23 02:30	SM	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	54057	05/24/23 11:20	KS	EET MID
Soluble	Analysis	300.0		1			54094	05/24/23 19:50	CH	EET MID

Client Sample ID: FS06

Lab Sample ID: 890-4711-12
Matrix: Solid
Date Collected: 05/22/23 13:55
Date Received: 05/23/23 08:34

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	54106	05/24/23 16:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54208	05/27/23 05:21	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			54350	05/30/23 09:08	AJ	EET MID
Total/NA	Analysis	8015 NM		1			54158	05/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	54064	05/24/23 12:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54024	05/25/23 02:50	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	54057	05/24/23 11:20	KS	EET MID
Soluble	Analysis	300.0		1			54094	05/24/23 20:06	CH	EET MID

Client Sample ID: FS07

Lab Sample ID: 890-4711-13
Matrix: Solid
Date Collected: 05/22/23 14:00
Date Received: 05/23/23 08:34

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	54106	05/24/23 16:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54208	05/27/23 05:41	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			54350	05/30/23 09:08	AJ	EET MID
Total/NA	Analysis	8015 NM		1			54158	05/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	54064	05/24/23 12:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54024	05/25/23 03:11	SM	EET MID
Soluble	Leach	DI Leach			4.96 g	50 mL	54057	05/24/23 11:20	KS	EET MID
Soluble	Analysis	300.0		1			54094	05/24/23 20:11	CH	EET MID

Client Sample ID: FS08

Lab Sample ID: 890-4711-14
Matrix: Solid
Date Collected: 05/22/23 14:05
Date Received: 05/23/23 08:34

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	54106	05/24/23 16:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54208	05/27/23 06:02	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			54350	05/30/23 09:08	AJ	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Client Sample ID: FS08

Date Collected: 05/22/23 14:05
Date Received: 05/23/23 08:34

Lab Sample ID: 890-4711-14
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			54158	05/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	54064	05/24/23 12:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54024	05/25/23 03:31	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	54057	05/24/23 11:20	KS	EET MID
Soluble	Analysis	300.0		1			54094	05/24/23 20:28	CH	EET MID

Client Sample ID: FS09

Date Collected: 05/22/23 14:10
Date Received: 05/23/23 08:34

Lab Sample ID: 890-4711-15
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	54106	05/24/23 16:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54208	05/27/23 06:22	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			54350	05/30/23 09:08	AJ	EET MID
Total/NA	Analysis	8015 NM		1			54158	05/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	54064	05/24/23 12:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54024	05/25/23 03:52	SM	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	54057	05/24/23 11:20	KS	EET MID
Soluble	Analysis	300.0		1			54094	05/24/23 20:33	CH	EET MID

Client Sample ID: FS10

Date Collected: 05/22/23 14:15
Date Received: 05/23/23 08:34

Lab Sample ID: 890-4711-16
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	54106	05/24/23 16:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54208	05/27/23 06:42	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			54350	05/30/23 09:08	AJ	EET MID
Total/NA	Analysis	8015 NM		1			54158	05/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	54064	05/24/23 12:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54024	05/25/23 04:12	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	54057	05/24/23 11:20	KS	EET MID
Soluble	Analysis	300.0		1			54094	05/24/23 20:38	CH	EET MID

Client Sample ID: FS11

Date Collected: 05/22/23 14:20
Date Received: 05/23/23 08:34

Lab Sample ID: 890-4711-17
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	54106	05/24/23 16:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54208	05/27/23 07:03	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			54350	05/30/23 09:08	AJ	EET MID
Total/NA	Analysis	8015 NM		1			54158	05/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	54064	05/24/23 12:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54024	05/25/23 04:32	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Client Sample ID: FS11

Date Collected: 05/22/23 14:20
Date Received: 05/23/23 08:34

Lab Sample ID: 890-4711-17

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			5.04 g	50 mL	54057	05/24/23 11:20	KS	EET MID
Soluble	Analysis	300.0		1			54094	05/24/23 20:44	CH	EET MID

Client Sample ID: FS12

Date Collected: 05/22/23 14:25
Date Received: 05/23/23 08:34

Lab Sample ID: 890-4711-18

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	54106	05/24/23 16:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54208	05/27/23 07:23	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			54350	05/30/23 09:08	AJ	EET MID
Total/NA	Analysis	8015 NM		1			54158	05/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	54064	05/24/23 12:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54024	05/25/23 04:53	SM	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	54057	05/24/23 11:20	KS	EET MID
Soluble	Analysis	300.0		1			54094	05/24/23 20:49	CH	EET MID

Client Sample ID: FS13

Date Collected: 05/22/23 14:30
Date Received: 05/23/23 08:34

Lab Sample ID: 890-4711-19

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	54106	05/24/23 16:22	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	54208	05/27/23 07:44	AJ	EET MID
Total/NA	Analysis	Total BTEX		1			54350	05/30/23 09:08	AJ	EET MID
Total/NA	Analysis	8015 NM		1			54158	05/25/23 10:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	54064	05/24/23 12:15	AJ	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	54024	05/25/23 05:13	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	54057	05/24/23 11:20	KS	EET MID
Soluble	Analysis	300.0		1			54094	05/24/23 20:54	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: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

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: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

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

Protocol References:

ASTM = ASTM International

EPA = US Environmental Protection Agency

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Outrider 28 Fed 501H

Job ID: 890-4711-1
SDG: 03C1558191

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-4711-1	PH04	Solid	05/22/23 09:10	05/23/23 08:34	1.5'
890-4711-2	PH03	Solid	05/22/23 09:20	05/23/23 08:34	1.5'
890-4711-3	PH02	Solid	05/22/23 12:50	05/23/23 08:34	1.5'
890-4711-4	PH01	Solid	05/22/23 12:55	05/23/23 08:34	1.5'
890-4711-5	SW01	Solid	05/22/23 14:35	05/23/23 08:34	0-1.5'
890-4711-6	SW02	Solid	05/22/23 14:40	05/23/23 08:34	0-1.5'
890-4711-7	FS01	Solid	05/22/23 13:05	05/23/23 08:34	1.5'
890-4711-8	FS02	Solid	05/22/23 13:10	05/23/23 08:34	1.5'
890-4711-9	FS03	Solid	05/22/23 13:15	05/23/23 08:34	1.5'
890-4711-10	FS04	Solid	05/22/23 13:45	05/23/23 08:34	1.5'
890-4711-11	FS05	Solid	05/22/23 13:50	05/23/23 08:34	1.5'
890-4711-12	FS06	Solid	05/22/23 13:55	05/23/23 08:34	1.5'
890-4711-13	FS07	Solid	05/22/23 14:00	05/23/23 08:34	1.5'
890-4711-14	FS08	Solid	05/22/23 14:05	05/23/23 08:34	1.5'
890-4711-15	FS09	Solid	05/22/23 14:10	05/23/23 08:34	1.5'
890-4711-16	FS10	Solid	05/22/23 14:15	05/23/23 08:34	1.5'
890-4711-17	FS11	Solid	05/22/23 14:20	05/23/23 08:34	1.5'
890-4711-18	FS12	Solid	05/22/23 14:25	05/23/23 08:34	1.5'
890-4711-19	FS13	Solid	05/22/23 14:30	05/23/23 08:34	1.5'

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 2

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

Work Order Comments

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

Project Name:	Outrider 28 Fed 501H	Turn Around	☑ Routine ☐ Rush
Project Number:	03C1558191	Due Date:	
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Connor Whitman		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	DM-007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	1.0
Total Containers:		Corrected Temperature:	0.8

Preservative Codes

None: NO | DI Water: H_2O
Cool: Cool | MeOH: Me
HCL: HC | HNO_3: HN
H_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 3000.0)	TPH (8015)	BTEX (8021)
PH04	S	5/22/23	9:10	1.5'	G	1				
PH03			9:20	1.5'	G	1				
PH02			12:50	1.5'	G	1				
PH01			12:55	1.5'	G	1				
SW01			2:35	0-1.5	Co	1				
SW02			2:40	0-1.5		1				
FS01			1:05	1.5'		1				
FS02			1:10	1.5'		1				
FS03			1:15	1.5'		1				
FS04			1:45	1.5'		1				

890-4711 Chain of Custody

Sample Comments

Incident ID:
nAPP2306054654

Cost Center:
2222921001

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	Cotton	Amanda Stuyt	5/23/23 0834			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 2 of 2

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

Work Order Comments

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

Project Name:	Outrider 28 Fed 501H	Turn Around	☒ Routine ☐ Rush
Project Number:	03C1558191	Due Date:	
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Connor Whitman		
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:		
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_2SO_4: H_2 | NaOH: Na
H_3PO_4: HP
$NaHSO_4$: NABIS
$Na_2S_2O_3$: $NaSO_3$
Zn Acetate+NaOH: Zn
NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 3000.0)	TPH (8015)	BTEX (8021)	Sample Comments
FS05	S	5/22/23	150	1.5'	Comp	1		X	X	X	Incident ID:
FS06			155	1.5'		1					nAPP2306054654
FS07			200	1.5'		1					
FS08			205	1.5'		1					Cost Center:
FS09			210	1.5'		1					2222921001
FS10			215	1.5'		1					AFE:
FS11			220	1.5'		1					
FS12			225	1.5'		1					
FS13			230	1.5'		1					

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	2	5/23/23 08:39	4		
3			6		
5					

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-4711-1
SDG Number: 03C1558191

Login Number: 4711
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: 890-4711-1
SDG Number: 03C1558191

Login Number: 4711
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 05/24/23 10:58 AM

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

ENSOLUM

APPENDIX F

NMOCD Notifications/Correspondence

From: Green, Garrett J
To: Ben Belill
Subject: FW: [EXTERNAL] XTO - Extension Request - Outrider 28 Fed 501H - Incident Number NAPP2306054654
Date: Tuesday, May 16, 2023 2:10:44 PM

[**EXTERNAL EMAIL**]

From: Nobui, Jennifer, EMNRD <Jennifer.Nobui@emnrd.nm.gov>
Sent: Tuesday, May 16, 2023 11:07 AM
To: Green, Garrett J <garrett.green@exxonmobil.com>
Cc: Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>
Subject: FW: [EXTERNAL] XTO - Extension Request - Outrider 28 Fed 501H - Incident Number NAPP2306054654

External Email - Think Before You Click

Hello Garrett

OCD approves your 90-day extension request to August 16, 2023 to submit a remediation plan or closure report. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thanks,
Jennifer Nobui

From: Green, Garrett J <garrett.green@exxonmobil.com>
Sent: Tuesday, May 16, 2023 8:46 AM
To: Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>; Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD <Jocelyn.Harimon@emnrd.nm.gov>
Cc: DelawareSpills /SM <DelawareSpills@exxonmobil.com>; Ben Belill <bbelill@ensolum.com>
Subject: [EXTERNAL] XTO - Extension Request - Outrider 28 Fed 501H - Incident Number NAPP2306054654

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

All,

XTO is requesting an extension for the current deadline of May 16, 2023 for submitting a

remediation work plan or closure report required in 19.15.29.12.B.(1) NMAC at the Outrider 28 Fed 501H (Incident Number NAPP2306054654). The release occurred on February 15, 2023, and initial site assessment activities have been completed. However, due to XTO onsite operations, including frac and flowback operations, further remediation activities were postponed to ensure the safety of all onsite personnel. Delineation activities are scheduled to begin on May 19, 2023. In order to complete remediation efforts, review the laboratory analytical results, and submit a remediation work plan or closure report, XTO requests an extension until August 14, 2023.

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

From: Collins, Melanie <melanie.collins@exxonmobil.com>
Sent: Friday, May 19, 2023 9:00 AM
To: ocd.enviro (ocd.enviro@emnrd.nm.gov) <ocd.enviro@emnrd.nm.gov>; Hamlet, Robert, EMNRD (Robert.Hamlet@emnrd.nm.gov) <Robert.Hamlet@emnrd.nm.gov>; Bratcher, Michael, EMNRD (mike.bratcher@emnrd.nm.gov) <mike.bratcher@emnrd.nm.gov>; Harimon, Jocelyn, EMNRD (Jocelyn.Harimon@emnrd.nm.gov) <Jocelyn.Harimon@emnrd.nm.gov>
Cc: Tacoma Morrissey <tmorrissey@ensolum.com>; Green, Garrett J <garrett.green@exxonmobil.com>
Subject: XTO - Sampling Notification (Week of 5/22/23 - 5/26/23)

[**EXTERNAL EMAIL**]

All,

XTO plans to complete final sampling activities at the sites listed below for the week of May 22, 2023.

Monday

- JRU 108 / nAPP2217931599
- Outrider Fed 28 Pad B / NAPP2306936047
-

Tuesday

- JRU 108 / nAPP2217931599
- Outrider Fed 28 Pad B / NAPP2306936047
- Outrider Fed 28 501H / nAPP2306054654

Wednesday

- JRU 108 / nAPP2217931599
- Outrider Fed 28 501H / nAPP2306054654

Thursday

- Outrider Fed 28 501H / nAPP2306054654

Thank you,

Melanie Collins

XTO ENERGY

Environmental Technician
melanie.collins@exxonmobil.com
432-556-3756

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

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

CONDITIONS

Action 251783

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 251783
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
nvelez	None	11/29/2023