

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	NAPP2134755985
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

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)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Incident ID	NAPP2134755985
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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?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

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

☐ 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 <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: _____	Title: _____
Signature: <u>Adrian Bakes</u>	Date: _____
email: _____	Telephone: _____
<u>OCD Only</u>	
Received by: <u>Ramona Marcus</u>	Date: <u>12/14/2021</u>

NAPP2134755985

Location:	Corral Canyon 8-32 Fed 163H	
Spill Date:	12/8/2021	
Area 1		
Approximate Area =	140.36	cu.ft.
VOLUME OF LEAK		
Total Crude Oil =	0.00	bbls
Total Frac Fluid=	25.00	bbls
Area 2		
Approximate Area =	3364.00	sq. ft.
Average Saturation (or depth) of spill =	2.00	inches
Average Porosity Factor =		
0.03		
VOLUME OF LEAK		
Total Crude Oil =	0.00	bbls
Total Frac Fluid=	5.00	bbls
TOTAL VOLUME OF LEAK		
Total Crude Oil=	0.00	bbls
Total Frac Fluid=	30.00	bbls
TOTAL VOLUME RECOVERED		
Total Crude Oil=	0.00	bbls
Total Frac Fluid=	27.00	bbls

Incident ID	NAPP2134755985
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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?	<u>>100</u> (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

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

Printed Name: _Garrett Green_____ Title: _Environmental Coordinator_____

Signature: _____ Date: ___08/05/2022_____

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

OCD Only

Received by: _Jocelyn Harimon_____ Date: _08/05/2022_____

Incident ID	NAPP2134755985
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Application ID	

Closure

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

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

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

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

Printed Name: Garrett Green Title: Environmental Coordinator

Signature:  Date: 08/05/2022

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

OCD Only

Received by: Jocelyn Harimon Date: 08/05/2022

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

Closure Approved by:  Date: 08/10/2022

Printed Name: Jennifer Nobui Title: Environmental Specialist A



August 5, 2022

District II
New Mexico Oil Conservation Division
811 S. First Street
Artesia, New Mexico 88210

**Re: Closure Request
Corral Canyon 8-32 Fed 163H
Incident Numbers NAPP2134755985, NAPP2200359627, and NAPP2201252570
Eddy County, New Mexico**

To Whom It May Concern:

Ensolum, LLC (Ensolum) on behalf of XTO Energy, Inc. (XTO), has prepared the following Closure Request to document the excavation and soil sampling activities completed to address impacted soil at the Corral Canyon 8-32 Fed 163H (Site), resulting from three separate releases of hydraulic fracturing (frac) fluid onto the surface of the pad. Based on the excavation activities and analytical results from the soil sampling events, XTO is submitting this Closure Request, describing remediation that has occurred and requesting closure for Incident Numbers NAPP2134755985, NAPP2200359627, and NAPP2201252570.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit K, Section 8, Township 25 South, Range 29 East, in Eddy County, New Mexico (32.14330° N, 104.00924° W) and is associated with oil and gas exploration and production operations on Bureau of Land Management (BLM) federal land.

Incident Number NAPP2134755985

On December 8, 2021, iron washed out due to sand during hydraulic fracturing (fracing) operations, which resulted in the release of approximately 30 barrels (bbls) of frac fluid into the temporary lined containment and onto the surface of the well pad. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; approximately 27 bbls of frac fluid were recovered from within the lined containment. XTO reported the release to the New Mexico Oil Conservation Division (NMOCD) via email on December 8, 2021 and submitted a Release Notification Form C-141 (Form C-141) on December 13, 2021. The release was assigned Incident Number nAPP2134755985.

Incident Number NAPP2200359627

On December 19, 2021, iron washed out due to sand during fracing operations, which resulted in the release of approximately 5 bbls of frac fluid into the temporary lined containment and onto the surface of the well pad. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; approximately 4.5 bbls of frac fluid were recovered from within the lined containment. XTO reported the

release to the NMOCD on a Form C-141 on January 3, 2022. The release was assigned Incident Number NAPP2200359627.

Incident Number NAPP2201252570

On December 29, 2021, corrosion of a hose connection during fracing operations resulted in the release of approximately 30 bbls of frac fluid into the temporary lined containment and onto the surface of the well pad. A vacuum truck was immediately dispatched to the Site to recover free-standing fluids; approximately 29.75 bbls of frac fluid were recovered from within the lined containment. XTO reported the release to the NMOCD via email on December 29, 2021 and submitted a Form C-141 on January 12, 2022. The release was assigned Incident Number NAPP2201252570.

The liners were removed prior to site assessment so no liner inspections were able to be completed. The release areas outside of containment overlapped for all three releases and were addressed concurrently.

SITE CHARACTERIZATION AND CLOSURE CRITERIA

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

Depth to groundwater at the Site is estimated to be greater than 100 feet below ground surface (bgs) based on the nearest groundwater well data. The nearest groundwater well is New Mexico Office of the State Engineer (NMOSE) well C-02518, located approximately 0.38 miles southeast of the Site. The groundwater well was drilled in 1997 and has a reported total depth of 460 feet bgs. No groundwater was encountered during drilling of the well, indicating that depth groundwater is greater than 100 feet bgs. All wells used for depth to water determination are depicted on Figure 1 and the referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is an intermittent riverine approximately 1,400 feet southwest 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 to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (medium potential karst designation area). Site receptors are identified on Figure 1.

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

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

SITE ASSESSMENT AND SAMPLING ACTIVITIES

Remediation efforts were postponed due to ongoing fracing operations on pad near the release area. Per 19.15.29.12.B.(1) NMAC, extensions for submitting remediation work plans or closure reports were requested to the NMOCDC for Incident Numbers NAPP2134755985, NAPP2200359627, and NAPP2201252570. The extension requests were granted, extending the final deadline for all three releases to to August 5, 2022.

On May 17, 2022 through July 25, 2022, upon completion of fracing operations, Ensolum personnel visited the Site to evaluate the release extent based on information provided on the Form C-141 and visual observations. Five preliminary assessment soil samples (SS01 through SS05) were collected within and around the release extent from a depth of 0.5 feet bgs to assess the lateral extent of the release. The preliminary soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride Hach® chloride QuanTab® test strips. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was completed during the Site visit and a photographic log is included in Appendix B.

The preliminary soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported at or below 4 degrees Celsius (°C) under strict chain-of-custody (COC) procedures to Eurofins Laboratories (Eurofins) in Carlsbad, New Mexico, for analysis of BTEX following United States Environmental Protection Agency (EPA) Method 8021B; TPH- GRO, TPH- DRO, and TPH-oil range organics (ORO) following EPA Method 8015M/D; and chloride following EPA Method 300.0.

Laboratory analytical results for preliminary soil sample SS01, collected within the release extent indicated that TPH-GRO/TPH-DRO and TPH concentrations exceeded the Closure Criteria. Laboratory analytical results for preliminary soil samples SS02 through SS04, collected around the release extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO and TPH, and chloride concentrations were compliant with the strictest Table 1 Closure Criteria, and confirmed the lateral extent of the release. Laboratory analytical results are summarized on Table 1 and the complete laboratory analytical reports are included in Appendix C. Based on the laboratory analytical results, additional remediation activities were warranted.

EXCAVATION SOIL SAMPLING ACTIVITIES AND ANALYTICAL RESULTS

Between July 8, 2022 and July 9, 2022, Ensolum personnel returned to the Site to oversee excavation activities. Impacted soil was excavated from the release area as indicated by visible staining and laboratory analytical results for the preliminary soil samples. Excavation activities were performed using track-mounted backhoe and transport vehicle. To direct excavation activities, soil was screened for volatile aromatic hydrocarbons and chloride utilizing a PID and Hach® chloride QuanTab® test strips, respectively. The excavation was completed to depths ranging from 1-foot bgs to 1.5 feet bgs. Photographic documentation of the excavation activities is included in Appendix B.

Following removal of the impacted soil, 5-point composite soil samples were collected at least every 200 square feet from the floor of the excavation. Because the excavation was shallow the floor sample composites included aliquots collected from the nearby sidewalls. The 5-point composite samples were collected by placing five equivalent aliquots of soil into a 1-gallon, resealable plastic bag and homogenizing the samples by thoroughly mixing. Composite soil samples FS01 through FS20 were collected from the floor of the excavation from depths ranging from 1-foot bgs to 1.5 feet bgs. The soil samples were collected, handled, and analyzed following the same procedures as described above. The excavation extent and excavation soil sample locations are presented on Figure 3.

The excavation area measured approximately 3,675 square feet. A total of approximately 140 cubic yards of impacted soil was removed during the excavation activities. The impacted soil was transported and properly disposed of at the R360 Facility in Carlsbad, New Mexico.

Laboratory analytical results for excavation floor samples FS01 through FS20 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria and no further remediation was required. The laboratory analytical results are summarized on Table 1 and the complete laboratory analytical reports are included in Appendix C.

CLOSURE REQUEST

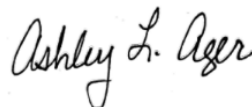
Excavation of impacted soil has mitigated impacts at this Site. Depth to groundwater has been estimated to be greater than 100 feet bgs and no other sensitive receptors were identified near the release extent. XTO believes these remedial actions are protective of human health, the environment, and groundwater. XTO will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions. As such, XTO respectfully requests closure for Incident Numbers NAPP2134755985, NAPP2200359627, and NAPP2201252570.

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

Sincerely,
Ensolum, LLC



Tacoma Morrissey
Senior Geologist



Ashley L. Ager, M.S., P.G.
Program Director

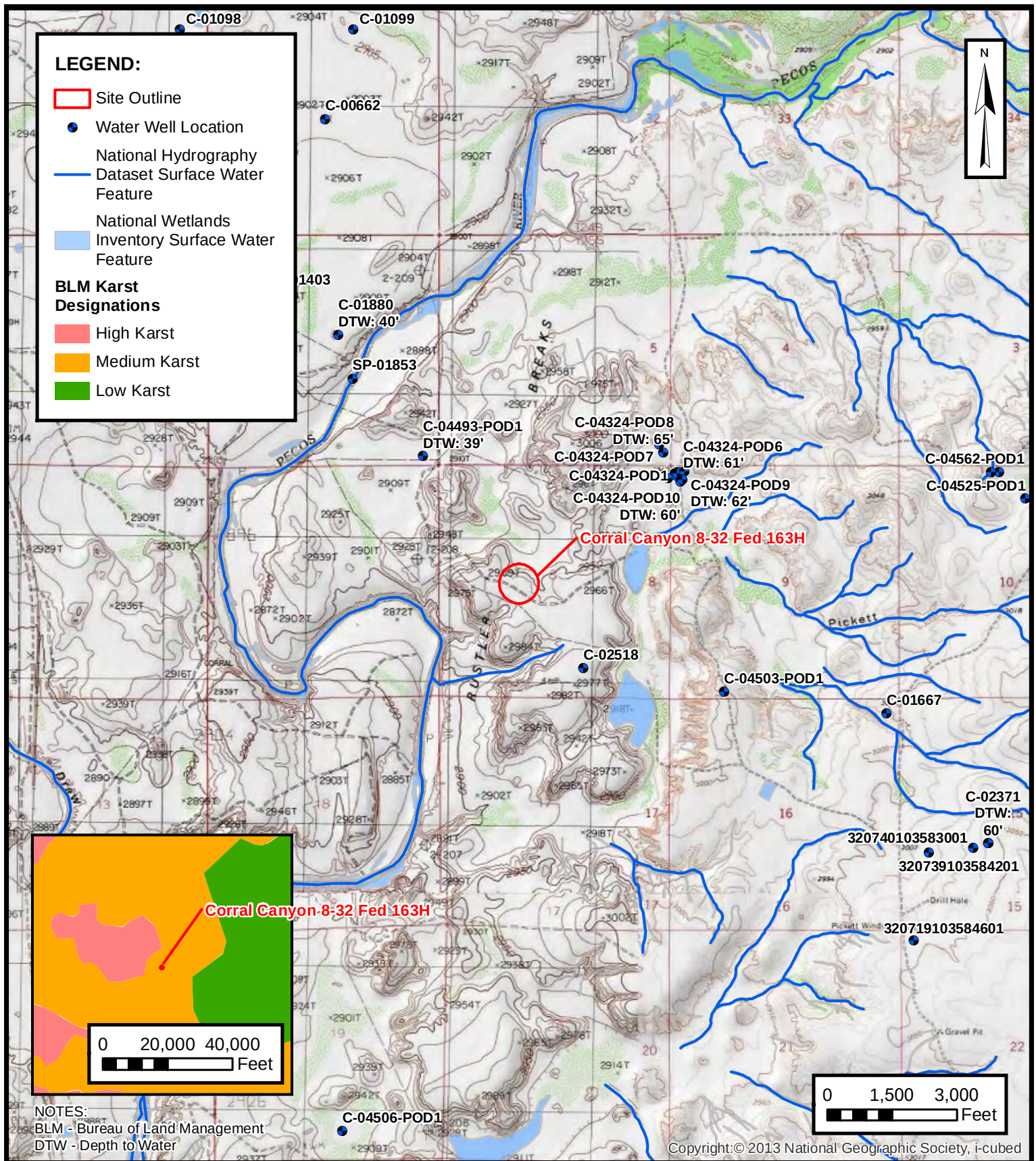
cc: Garrett Green, XTO
Shelby Pennington, XTO
Bureau of Land Management

Appendices:

Figure 1	Site Receptor Map
Figure 2	Preliminary Soil Sample Locations
Figure 3	Excavation Soil Sample Locations
Table 1	Soil Sample Analytical Results
Appendix A	Referenced Well Records
Appendix B	Photographic Log
Appendix C	Laboratory Analytical Reports & Chain-of-Custody Documentation
Appendix D	NMOCD Notifications



FIGURES

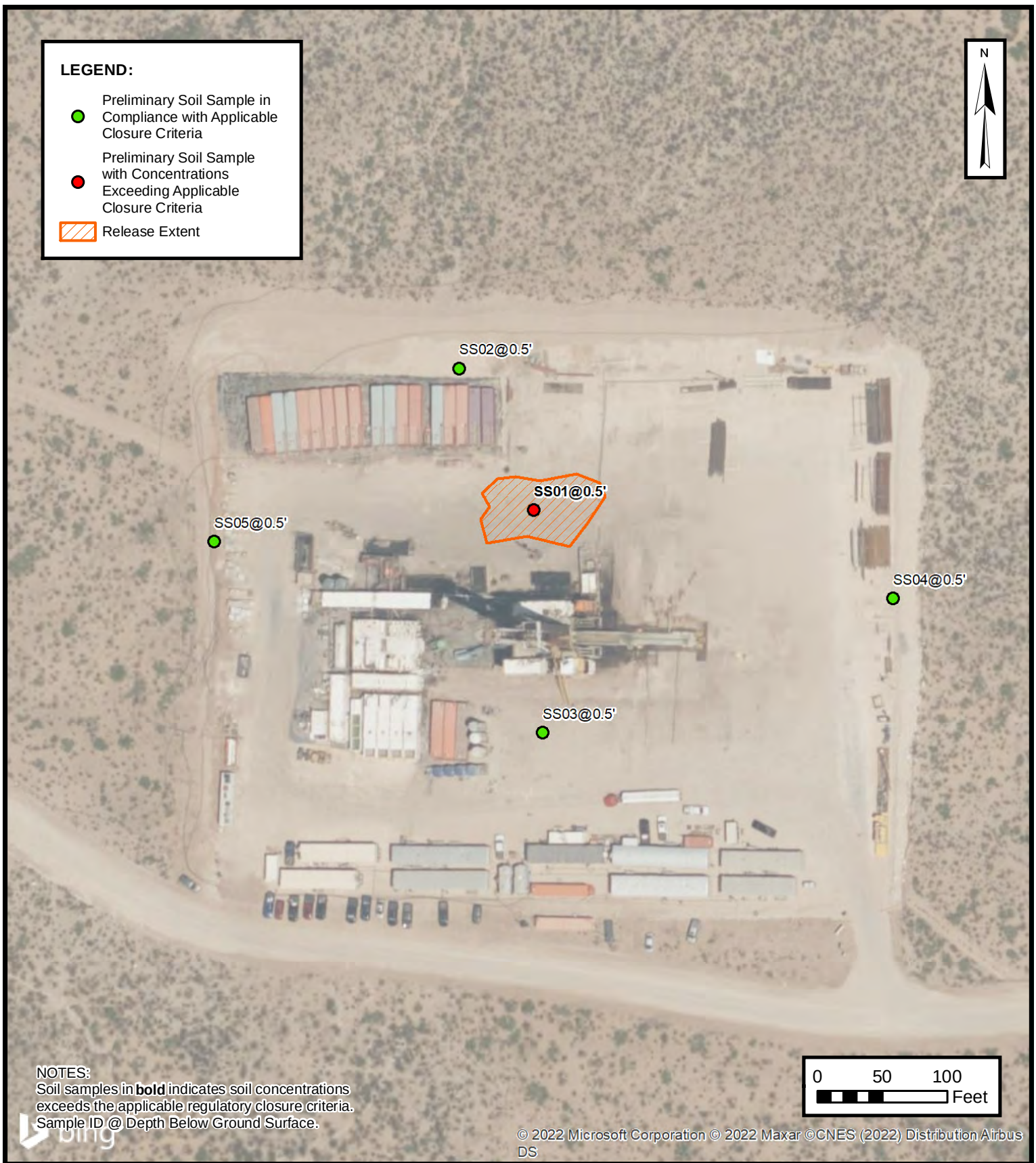


ENSOLUM
Environmental & Hydrogeologic Consultants

SITE RECEPTOR MAP

XTO ENERGY, INC
CORRAL CANYON 8-32 FED 163H
NAPP2201252570, NAPP2200359627, NAPP2134755985
Unit K, Section 8, Township 25S, Range 29E
Eddy County, New Mexico

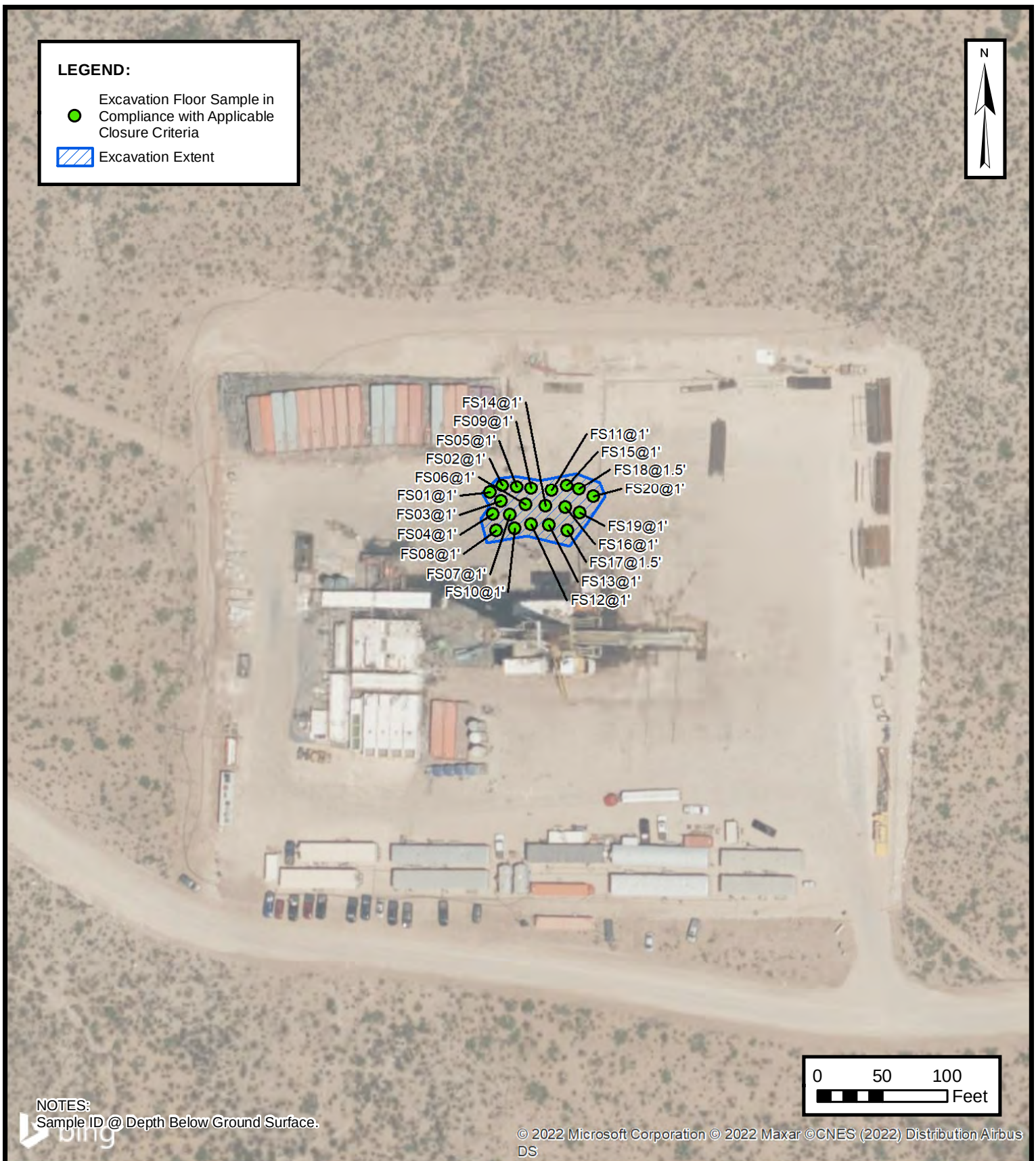
FIGURE
1



PRELIMINARY SOIL SAMPLE LOCATIONS

XTO ENERGY, INC
CORRAL CANYON 8-32 FED 163H
NAPP2201252570, NAPP2200359627, NAPP2134755985
Unit K, Section 8, Township 25S, Range 29E
Eddy County, New Mexico

FIGURE
2



EXCAVATION SOIL SAMPLE LOCATIONS

XTO ENERGY, INC
CORRAL CANYON 8-32 FED 163H
NAPP2201252570, NAPP2200359627, NAPP2134755985
Unit K, Section 8, Township 25S, Range 29E
Eddy County, New Mexico

FIGURE
3



TABLES



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 Corral Canyon 8-32 Fed 163H
 XTO Energy, Inc.
 Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
Preliminary Assessment Soil Samples										
SS01	05/17/2022	0.5	<0.00201	<0.00402	<249	5,810	8,620	5,810	14,400	8,250
SS02	07/25/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	307
SS03	07/25/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	84.4	<49.9	84.4	569
SS04	07/06/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	72.5	<50.0	72.5	34.4
SS05	07/25/2022	0.5	<0.00201	<0.00402	<50.0	<50.0	50.6	<50.0	50.6	289
Confirmation Soil Samples										
FS01	07/09/2022	1	<0.00200	<0.00401	<49.9	<49.9	133	<49.9	133	1,350
FS02	07/09/2022	1	<0.00201	<0.00402	<50.0	73.2	299	73.2	372	1,590
FS03	07/09/2022	1	<0.00199	<0.00398	<50.0	688	<50.0	688	688	1,650
FS04	07/09/2022	1	<0.000399	<0.000798	<49.9	944	<49.9	944	944	2,570
FS05	07/09/2022	1	<0.000398	<0.000795	<50.0	102	<50.0	102	102	1,640
FS06	07/09/2022	1	<0.000402	<0.000803	<49.9	80.7	<49.9	80.7	80.7	1,440
FS07	07/09/2022	1	<0.000399	<0.000798	<49.9	281	<49.9	281	281	1,880
FS08	07/09/2022	1	<0.000398	<0.000795	<50.0	486	<50.0	486	486	1,590
FS09	07/09/2022	1	<0.000401	<0.000802	<49.9	187	<49.9	187	187	1,460
FS10	07/09/2022	1	<0.00201	<0.00402	<50.0	76.1	<50.0	76.1	76.1	858
FS11	07/08/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	1,030
FS12	07/09/2022	1	<0.000404	<0.000808	<50.0	<50.0	<50.0	<50.0	<50.0	1,230
FS13	07/09/2022	1	<0.000399	<0.000798	<50.0	303	<50.0	303	303	2,120
FS14	07/09/2022	1	<0.000398	<0.000795	<49.8	101	<49.8	101	101	3,020
FS15	07/08/2022	1	<0.00200	<0.00399	<50.0	281	<50.0	281	281	1,890



TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
 Corral Canyon 8-32 Fed 163H
 XTO Energy, Inc.
 Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	1,000	2,500	20,000
FS16	07/08/2022	1	<0.00198	<0.00396	<49.9	164	51.7	164	216	2,130
FS17	07/08/2022	1.5	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	2,050
FS18	07/08/2022	1.5	<0.00202	<0.00404	<50.0	68.8	<50.0	68.8	68.8	202
FS19	07/08/2022	1	<0.00201	<0.00402	<50.0	324	86.4	324	410	1,190
FS20	07/08/2022	1	<0.00201	0.00581	<50.0	275	86.9	275	362	1,030

Notes:

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

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

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon



APPENDIX A

Referenced Well Records

STATE ENGINEER OFFICE

WELL RECORD

465788

Revised June 1972

Section 1. GENERAL INFORMATION

OFFICE OF
STATE ENGINEER
SANTA FE, NEW MEXICO

(A) Owner of well Penwell Energy
 Street or Post Office Address c/o Glenn's Water Well Service
 City and State P.O. Box 692 Tatum, NM 88267

Owner's Well No. 99

FEB 1 PM 1 29

Well was drilled under Permit No. C-2518 and is located in the:a. $\frac{1}{4}$ $\frac{1}{4}$ SW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 8 Township 25 Range 29 N.M.P.M.b. Tract No. of Map No. of the c. Lot No. of Block No. of the
Subdivision, recorded in County.d. X= feet, Y= feet, N.M. Coordinate System Zone in
the Grant.(B) Drilling Contractor Glenn's Water Well Service License No. WD -421Address P.O. Box 692 Tatum, NM 88267Drilling Began 6-2-97 Completed 6-2-97 Type tools rotary Size of hole 7 7/8 in.Elevation of land surface or at well is ft. Total depth of well 462 ft.Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
From	To			
			dry hole	

Section 3. RECORD OF CASING

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet		Length (feet)	Type of Shoe	Perforations	
			Top	Bottom			From	To
			none					

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet		Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
From	To				

Section 5. PLUGGING RECORD

Plugging Contractor well was back filled with cuttingAddress and drilling mudPlugging Method Date Well Plugged Plugging approved by:

State Engineer Representative

No.	Depth in Feet		Cubic Feet of Cement
	Top	Bottom	
1	0	460	cutting & mud
2			
3			
4			

FOR USE OF STATE ENGINEER ONLY

Date Received 06-10-97Quad FWL FSL File No. C-2518 Use OWD Location No. 25S.29E.8.43412

"Dry Hole"

Section 6. LOG OF HOLE

[illegible]

Section 7. REMARKS AND ADDITIONAL INFORMATION

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

Corky J. Grew
Driller

INSTRUCTIONS: This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. All sections, except Section 5, shall be answered as completely and accurately as possible when any well is drilled, repaired or deepened. When this form is used as a plugging record, only Section 1(a) and Section 5 need be completed.



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National Water Information System: Web Interface

USGS Water Resources (Cooperator Access)

Data Category:

Groundwater

Geographic Area:

United States

GO

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Groundwater levels for the Nation

 Important: [Next Generation Monitoring Location Page](#)

Search Results -- 1 sites found

site_no list =

- 320739103584201

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 320739103584201 25S.29E.15.31134

Available data for this site

Groundwater: Field measurements

GO

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°07'39", Longitude 103°58'42" NAD27

Land-surface elevation 3,017 feet above NAVD88

The depth of the well is 192 feet below land surface.

This well is completed in the Other aquifers (N9999OTHER) national aquifer.

This well is completed in the Rustler Formation (312RSLR) local aquifer.

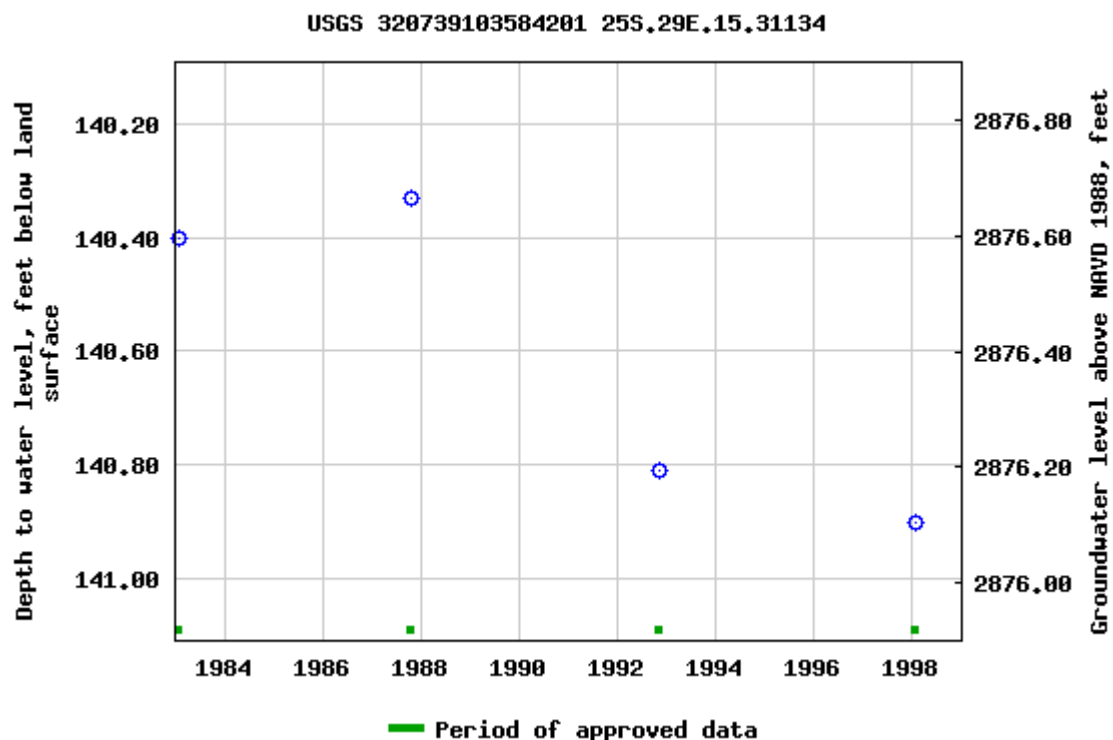
Output formats

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Breaks in the plot represent a gap of at least one year between field measurements.

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Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>

Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2022-02-08 13:20:05 EST

0.67 0.61 nadww02





APPENDIX B

Photographic Log

**Photographic Log**

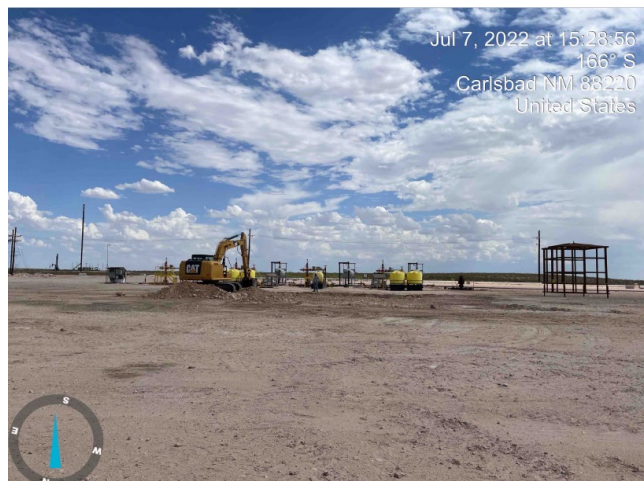
XTO Energy, Inc.

Corral Canyon 8-32 Fed 163H

Incident Numbers NAPP2134755985,
NAPP2201252570, & NAPP2200359627

Photograph 1 Date: May 17, 2022

Description: View of release extent facing west.

Jul 7, 2022 at 15:28:56
166° S
Carlsbad NM 88220
United States

Photograph 2 Date: July 7, 2022

Description: View of excavation facing south.

Jul 8, 2022 at 08:55:41
140° SE
Carlsbad NM 88220
United States

Photograph 3 Date: July 8, 2022

Description: View of final excavation facing southeast.

Jul 8, 2022 at 11:07:53
111° E
Carlsbad NM 88220
United States

Photograph 4 Date: July 8, 2022

Description: View of final excavation facing east.



APPENDIX C

Laboratory Analytical Reports & Chain of Custody Documentation



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2650-1

Laboratory Sample Delivery Group: Eddy County
Client Project/Site: Corral Canyon 8-32

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Tacoma Morrissey

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:

7/27/2022 3:44:01 PM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

LINKS

Review your project
results through



Have a Question?



Visit us at:

www.eurofinsus.com/Env

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

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

Client: Ensolum
Project/Site: Corral Canyon 8-32

Laboratory Job ID: 890-2650-1
SDG: Eddy County

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Definitions/Glossary

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2650-1
SDG: Eddy County

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2650-1
SDG: Eddy County

Job ID: 890-2650-1

Laboratory: Eurofins Carlsbad

Narrative

**Job Narrative
890-2650-1**

Receipt

The sample was received on 7/26/2022 8:47 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-30709 and analytical batch 880-30747 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.

GC Semi VOA

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-30765 and analytical batch 880-30743 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

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

HPLC/IC

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

Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2650-1
SDG: Eddy County

Client Sample ID: SS02

Lab Sample ID: 890-2650-1

Date Collected: 07/25/22 13:10

Matrix: Solid

Date Received: 07/26/22 08:47

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		07/27/22 10:00	07/27/22 12:59	1
Toluene	<0.00199	U	0.00199	mg/Kg		07/27/22 10:00	07/27/22 12:59	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		07/27/22 10:00	07/27/22 12:59	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		07/27/22 10:00	07/27/22 12:59	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		07/27/22 10:00	07/27/22 12:59	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		07/27/22 10:00	07/27/22 12:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	07/27/22 10:00	07/27/22 12:59	1
1,4-Difluorobenzene (Surr)	89		70 - 130	07/27/22 10:00	07/27/22 12:59	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			07/27/22 13:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			07/27/22 15:34	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		07/27/22 08:40	07/27/22 12:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9	mg/Kg		07/27/22 08:40	07/27/22 12:58	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/27/22 08:40	07/27/22 12:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130	07/27/22 08:40	07/27/22 12:58	1
o-Terphenyl	91		70 - 130	07/27/22 08:40	07/27/22 12:58	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	307		5.03	mg/Kg			07/27/22 14:48	1

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2650-1
SDG: Eddy County

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-17263-A-16-E MS	Matrix Spike	114	86
880-17263-A-16-F MSD	Matrix Spike Duplicate	115	94
890-2650-1	SS02	112	89
LCS 880-30709/1-A	Lab Control Sample	110	99
LCSD 880-30709/2-A	Lab Control Sample Dup	104	95
MB 880-30709/5-A	Method Blank	101	84
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-17301-A-1-E MS	Matrix Spike	99	88
880-17301-A-1-F MSD	Matrix Spike Duplicate	99	89
890-2650-1	SS02	89	91
LCS 880-30765/2-A	Lab Control Sample	89	82
LCSD 880-30765/3-A	Lab Control Sample Dup	107	108
MB 880-30765/1-A	Method Blank	82	83
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2650-1
SDG: Eddy County

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-30709/5-A

Matrix: Solid

Analysis Batch: 30747

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 30709

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/27/22 08:00	07/27/22 10:54	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/27/22 08:00	07/27/22 10:54	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/27/22 08:00	07/27/22 10:54	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/27/22 08:00	07/27/22 10:54	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/27/22 08:00	07/27/22 10:54	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/27/22 08:00	07/27/22 10:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	07/27/22 08:00	07/27/22 10:54	1
1,4-Difluorobenzene (Surr)	84		70 - 130	07/27/22 08:00	07/27/22 10:54	1

Lab Sample ID: LCS 880-30709/1-A

Matrix: Solid

Analysis Batch: 30747

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 30709

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09414		mg/Kg		94	70 - 130
Toluene	0.100	0.09289		mg/Kg		93	70 - 130
Ethylbenzene	0.100	0.09941		mg/Kg		99	70 - 130
m-Xylene & p-Xylene	0.200	0.1985		mg/Kg		99	70 - 130
o-Xylene	0.100	0.1087		mg/Kg		109	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: LCSD 880-30709/2-A

Matrix: Solid

Analysis Batch: 30747

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 30709

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09253		mg/Kg		93	70 - 130	2	35
Toluene	0.100	0.09148		mg/Kg		91	70 - 130	2	35
Ethylbenzene	0.100	0.09626		mg/Kg		96	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.1928		mg/Kg		96	70 - 130	3	35
o-Xylene	0.100	0.1052		mg/Kg		105	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 880-17263-A-16-E MS

Matrix: Solid

Analysis Batch: 30747

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 30709

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U F1	0.0998	0.03151	F1	mg/Kg		32	70 - 130
Toluene	<0.00199	U F1	0.0998	0.03037	F1	mg/Kg		30	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2650-1
SDG: Eddy County

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

Lab Sample ID: 880-17263-A-16-E MS

Matrix: Solid

Analysis Batch: 30747

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 30709

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U F1	0.0998	0.02646	F1	mg/Kg		27	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.200	0.03952	F1	mg/Kg		20	70 - 130
o-Xylene	<0.00199	U F1	0.0998	0.02829	F1	mg/Kg		28	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	86		70 - 130

Lab Sample ID: 880-17263-A-16-F MSD

Matrix: Solid

Analysis Batch: 30747

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 30709

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.0994	0.03891	F1	mg/Kg		39	70 - 130	21	35
Toluene	<0.00199	U F1	0.0994	0.03672	F1	mg/Kg		37	70 - 130	19	35
Ethylbenzene	<0.00199	U F1	0.0994	0.03381	F1	mg/Kg		34	70 - 130	24	35
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.199	0.06725	F1 F2	mg/Kg		34	70 - 130	52	35
o-Xylene	<0.00199	U F1	0.0994	0.03668	F1	mg/Kg		37	70 - 130	26	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

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

Lab Sample ID: MB 880-30765/1-A

Matrix: Solid

Analysis Batch: 30743

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 30765

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		07/27/22 08:40	07/27/22 09:41	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/27/22 08:40	07/27/22 09:41	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/27/22 08:40	07/27/22 09:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130	07/27/22 08:40	07/27/22 09:41	1
o-Terphenyl	83		70 - 130	07/27/22 08:40	07/27/22 09:41	1

Lab Sample ID: LCS 880-30765/2-A

Matrix: Solid

Analysis Batch: 30743

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 30765

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1071		mg/Kg		107	70 - 130
Diesel Range Organics (Over C10-C28)	1000	848.8		mg/Kg		85	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2650-1
SDG: Eddy County

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

Lab Sample ID: LCS 880-30765/2-A

Matrix: Solid

Analysis Batch: 30743

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 30765

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	82		70 - 130

Lab Sample ID: LCSD 880-30765/3-A

Matrix: Solid

Analysis Batch: 30743

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 30765

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1037		mg/Kg		104	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	1108	*1	mg/Kg		111	70 - 130	26	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	108		70 - 130

Lab Sample ID: 880-17301-A-1-E MS

Matrix: Solid

Analysis Batch: 30743

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 30765

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1100		mg/Kg		106	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U *1	1000	760.4		mg/Kg		76	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	88		70 - 130

Lab Sample ID: 880-17301-A-1-F MSD

Matrix: Solid

Analysis Batch: 30743

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 30765

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	1099		mg/Kg		106	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<50.0	U *1	999	782.1		mg/Kg		78	70 - 130	3	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	89		70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2650-1
SDG: Eddy County

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-30791/1-A

Matrix: Solid

Analysis Batch: 30793

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			07/27/22 11:26	1

Lab Sample ID: LCS 880-30791/2-A

Matrix: Solid

Analysis Batch: 30793

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	251.0		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-30791/3-A

Matrix: Solid

Analysis Batch: 30793

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	250.9		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 890-2649-A-1-F MS

Matrix: Solid

Analysis Batch: 30793

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	569		497	1041		mg/Kg		95	90 - 110

Lab Sample ID: 890-2649-A-1-G MSD

Matrix: Solid

Analysis Batch: 30793

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	569		497	1024		mg/Kg		92	90 - 110	2	20

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2650-1
SDG: Eddy County

GC VOA

Prep Batch: 30709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2650-1	SS02	Total/NA	Solid	5035	
MB 880-30709/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-30709/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-30709/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-17263-A-16-E MS	Matrix Spike	Total/NA	Solid	5035	
880-17263-A-16-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 30747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2650-1	SS02	Total/NA	Solid	8021B	30709
MB 880-30709/5-A	Method Blank	Total/NA	Solid	8021B	30709
LCS 880-30709/1-A	Lab Control Sample	Total/NA	Solid	8021B	30709
LCSD 880-30709/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	30709
880-17263-A-16-E MS	Matrix Spike	Total/NA	Solid	8021B	30709
880-17263-A-16-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	30709

Analysis Batch: 30817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2650-1	SS02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 30743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2650-1	SS02	Total/NA	Solid	8015B NM	30765
MB 880-30765/1-A	Method Blank	Total/NA	Solid	8015B NM	30765
LCS 880-30765/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	30765
LCSD 880-30765/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	30765
880-17301-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	30765
880-17301-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	30765

Prep Batch: 30765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2650-1	SS02	Total/NA	Solid	8015NM Prep	
MB 880-30765/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-30765/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-30765/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-17301-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-17301-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 30834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2650-1	SS02	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 30791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2650-1	SS02	Soluble	Solid	DI Leach	
MB 880-30791/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-30791/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-30791/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2650-1
SDG: Eddy County

HPLC/IC (Continued)

Leach Batch: 30791 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2649-A-1-F MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2649-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 30793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2650-1	SS02	Soluble	Solid	300.0	30791
MB 880-30791/1-A	Method Blank	Soluble	Solid	300.0	30791
LCS 880-30791/2-A	Lab Control Sample	Soluble	Solid	300.0	30791
LCSD 880-30791/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	30791
890-2649-A-1-F MS	Matrix Spike	Soluble	Solid	300.0	30791
890-2649-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	30791

Lab Chronicle

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2650-1
SDG: Eddy County

Client Sample ID: SS02
Date Collected: 07/25/22 13:10
Date Received: 07/26/22 08:47

Lab Sample ID: 890-2650-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	30709	07/27/22 10:00	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	30747	07/27/22 12:59	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30817	07/27/22 13:21	SM	XEN MID
Total/NA	Analysis	8015 NM		1			30834	07/27/22 15:34	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	30765	07/27/22 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			30743	07/27/22 12:58	SM	XEN MID
Soluble	Leach	DI Leach			4.97 g	50 mL	30791	07/27/22 11:00	SMC	XEN MID
Soluble	Analysis	300.0		1			30793	07/27/22 14:48	SMC	XEN MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2650-1
SDG: Eddy County

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	T104704400-22-24	06-30-23

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

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

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

Method Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2650-1
SDG: Eddy County

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Carlsbad

Sample Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2650-1
SDG: Eddy County

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
890-2650-1	SS02	Solid	07/25/22 13:10	07/26/22 08:47

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

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

Environment Testing

Xenco

Work Order No:

Page 1 of 1
www.xenco.com

Project Manager: <u>Tacapa Morrissey</u>		Bill to: (if different)		<u>Garrett Green</u>	
Company Name: <u>Envidia</u>		Company Name:		<u>XTO Energy</u>	
Address: <u>3122 National Parks</u>		Address:		<u>3104 E Greene St</u>	
City, State ZIP: <u>Cactusbad NM 88220</u>		City, State ZIP:		<u>Cactusbad NM 88220</u>	
Phone: <u>337-257-8307</u>		Email: <u>garrett.green@xtoenergy.com</u>			
Project Name: <u>Coral Canyon 8-32</u>		Turn Around			
Project Number: <u>03E/558058</u>		☐ Routine ☒ Rush			
Project Location: <u>Eddy County</u>		Due Date: <u>7/4/16</u>			
Sampler's Name: <u>OB</u>		TAT starts the day received by the lab, if received by 4:30pm			
PO #:					
SAMPLE RECEIPT		Temp Blank: <u>(Yes) No</u>		Wet Ice: <u>(Yes) No</u>	
Samples Received Intact: <u>(Yes) No</u>		Thermometer ID: <u>TRM-001</u>			
Cooler Custody Seals: <u>Yes No (N/A)</u>		Correction Factor: <u>-0.2</u>			
Sample Custody Seals: <u>Yes No (N/A)</u>		Temperature Reading: <u>2.2</u>			
Total Containers: <u>2.0</u>		Corrected Temperature: <u>2.0</u>			
Sample Identification		Date Sampled		Time Sampled	
<u>5562</u>		<u>5-7-25</u>		<u>1310</u>	
Matrix		Grab/Depth		# of Cont	
<u>S</u>		<u>6 in G</u>		<u>1</u>	
Sample Comments					
<u>Inc ID</u>					
<u>NAPP 2134755985</u>					
<u>NAPP 2200359627</u>					
<u>NAPP 2201252570</u>					
<u>LC</u>					
<u>1589651001</u>					
Preservative Codes					
None: NO		DI Water: H ₂ O			
Cool: Cool		MeOH: Me			
HCL: HC		HNO ₃ : HN			
H ₂ SO ₄ : H ₂		NaOH: Na			
H ₃ PO ₄ : HP					
NaHSO ₄ : NABIS					
Na ₂ S ₂ O ₃ : NaSO ₃					
Zn Acetate+NaOH: Zn					
NaOH+Ascorbic Acid: SAPC					
ANALYSIS REQUEST					
Barcode					
890-2650 Chain of Custody					
Parameters					
CHL					
STEX					
HCL					
Total Containers: <u>2.0</u>					
Sample Identification					
<u>5562</u>					
Matrix					
<u>S</u>					
Sample Comments					
<u>Inc ID</u>					
<u>NAPP 2134755985</u>					
<u>NAPP 2200359627</u>					
<u>NAPP 2201252570</u>					
<u>LC</u>					
<u>1589651001</u>					
Preservative Codes					
None: NO		DI Water: H ₂ O			
Cool: Cool		MeOH: Me			
HCL: HC		HNO ₃ : HN			
H ₂ SO ₄ : H ₂		NaOH: Na			
H ₃ PO ₄ : HP					
NaHSO ₄ : NABIS					
Na ₂ S ₂ O ₃ : NaSO ₃					
Zn Acetate+NaOH: Zn					
NaOH+Ascorbic Acid: SAPC					
ANALYSIS REQUEST					
Barcode					
890-2650 Chain of Custody					
Parameters					
CHL					
STEX					
HCL					
Total Containers: <u>2.0</u>					
Sample Identification					
<u>5562</u>					
Matrix					
<u>S</u>					
Sample Comments					
<u>Inc ID</u>					
<u>NAPP 2134755985</u>					
<u>NAPP 2200359627</u>					
<u>NAPP 2201252570</u>					
<u>LC</u>					
<u>1589651001</u>					
Preservative Codes					
None: NO		DI Water: H ₂ O			
Cool: Cool		MeOH: Me			
HCL: HC		HNO ₃ : HN			
H ₂ SO ₄ : H ₂		NaOH: Na			
H ₃ PO ₄ : HP					
NaHSO ₄ : NABIS					
Na ₂ S ₂ O ₃ : NaSO ₃					
Zn Acetate+NaOH: Zn					
NaOH+Ascorbic Acid: SAPC					
ANALYSIS REQUEST					
Barcode					
890-2650 Chain of Custody					
Parameters					
CHL					
STEX					
HCL					
Total Containers: <u>2.0</u>					
Sample Identification					
<u>5562</u>					
Matrix					
<u>S</u>					
Sample Comments					
<u>Inc ID</u>					
<u>NAPP 2134755985</u>					
<u>NAPP 2200359627</u>					
<u>NAPP 2201252570</u>					
<u>LC</u>					
<u>1589651001</u>					
Preservative Codes					
None: NO		DI Water: H ₂ O			
Cool: Cool		MeOH: Me			
HCL: HC		HNO ₃ : HN			
H ₂ SO ₄ : H ₂		NaOH: Na			
H ₃ PO ₄ : HP					
NaHSO ₄ : NABIS					
Na ₂ S ₂ O ₃ : NaSO ₃					
Zn Acetate+NaOH: Zn					
NaOH+Ascorbic Acid: SAPC					
ANALYSIS REQUEST					
Barcode					
890-2650 Chain of Custody					
Parameters					
CHL					

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2650-1

SDG Number: Eddy County

Login Number: 2650

List Number: 1

Creator: Kramer, Jessica

List Source: Eurofins Carlsbad

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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2650-1

SDG Number: Eddy County

Login Number: 2650

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 07/27/22 10:48 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	



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2649-1

Laboratory Sample Delivery Group: Eddy County
Client Project/Site: Corral Canyon 8-32

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Tacoma Morrissey

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:

7/27/2022 3:43:48 PM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

LINKS

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results through



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www.eurofinsus.com/Env

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

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

Client: Ensolum
Project/Site: Corral Canyon 8-32

Laboratory Job ID: 890-2649-1
SDG: Eddy County

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Definitions/Glossary

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2649-1
SDG: Eddy County

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2649-1
SDG: Eddy County

Job ID: 890-2649-1

Laboratory: Eurofins Carlsbad

Narrative	Job Narrative 890-2649-1
-----------	-----------------------------

Receipt

The sample was received on 7/26/2022 8:47 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-30709 and analytical batch 880-30747 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.

GC Semi VOA

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-30765 and analytical batch 880-30743 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

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

HPLC/IC

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

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Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2649-1
SDG: Eddy County

Client Sample ID: SS03

Lab Sample ID: 890-2649-1

Date Collected: 07/25/22 13:20

Matrix: Solid

Date Received: 07/26/22 08:47

Sample Depth: 6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		07/27/22 10:00	07/27/22 12:38	1
Toluene	<0.00199	U	0.00199	mg/Kg		07/27/22 10:00	07/27/22 12:38	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		07/27/22 10:00	07/27/22 12:38	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		07/27/22 10:00	07/27/22 12:38	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		07/27/22 10:00	07/27/22 12:38	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		07/27/22 10:00	07/27/22 12:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	07/27/22 10:00	07/27/22 12:38	1
1,4-Difluorobenzene (Surr)	85		70 - 130	07/27/22 10:00	07/27/22 12:38	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			07/27/22 13:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	84.4		49.9	mg/Kg			07/27/22 15:34	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		07/27/22 08:40	07/27/22 12:37	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9	mg/Kg		07/27/22 08:40	07/27/22 12:37	1
Oil Range Organics (Over C28-C36)	84.4		49.9	mg/Kg		07/27/22 08:40	07/27/22 12:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	81		70 - 130	07/27/22 08:40	07/27/22 12:37	1
o-Terphenyl	82		70 - 130	07/27/22 08:40	07/27/22 12:37	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	569		4.97	mg/Kg			07/27/22 14:21	1

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Surrogate Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2649-1
SDG: Eddy County

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-17263-A-16-E MS	Matrix Spike	114	86
880-17263-A-16-F MSD	Matrix Spike Duplicate	115	94
890-2649-1	SS03	107	85
LCS 880-30709/1-A	Lab Control Sample	110	99
LCSD 880-30709/2-A	Lab Control Sample Dup	104	95
MB 880-30709/5-A	Method Blank	101	84
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-17301-A-1-E MS	Matrix Spike	99	88
880-17301-A-1-F MSD	Matrix Spike Duplicate	99	89
890-2649-1	SS03	81	82
LCS 880-30765/2-A	Lab Control Sample	89	82
LCSD 880-30765/3-A	Lab Control Sample Dup	107	108
MB 880-30765/1-A	Method Blank	82	83
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2649-1
SDG: Eddy County

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-30709/5-A

Matrix: Solid

Analysis Batch: 30747

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 30709

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/27/22 08:00	07/27/22 10:54	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/27/22 08:00	07/27/22 10:54	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/27/22 08:00	07/27/22 10:54	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/27/22 08:00	07/27/22 10:54	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/27/22 08:00	07/27/22 10:54	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/27/22 08:00	07/27/22 10:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	07/27/22 08:00	07/27/22 10:54	1
1,4-Difluorobenzene (Surr)	84		70 - 130	07/27/22 08:00	07/27/22 10:54	1

Lab Sample ID: LCS 880-30709/1-A

Matrix: Solid

Analysis Batch: 30747

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 30709

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09414		mg/Kg		94	70 - 130
Toluene	0.100	0.09289		mg/Kg		93	70 - 130
Ethylbenzene	0.100	0.09941		mg/Kg		99	70 - 130
m-Xylene & p-Xylene	0.200	0.1985		mg/Kg		99	70 - 130
o-Xylene	0.100	0.1087		mg/Kg		109	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: LCSD 880-30709/2-A

Matrix: Solid

Analysis Batch: 30747

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 30709

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09253		mg/Kg		93	70 - 130	2	35
Toluene	0.100	0.09148		mg/Kg		91	70 - 130	2	35
Ethylbenzene	0.100	0.09626		mg/Kg		96	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.1928		mg/Kg		96	70 - 130	3	35
o-Xylene	0.100	0.1052		mg/Kg		105	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 880-17263-A-16-E MS

Matrix: Solid

Analysis Batch: 30747

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 30709

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U F1	0.0998	0.03151	F1	mg/Kg		32	70 - 130
Toluene	<0.00199	U F1	0.0998	0.03037	F1	mg/Kg		30	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2649-1
SDG: Eddy County

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

Lab Sample ID: 880-17263-A-16-E MS

Matrix: Solid

Analysis Batch: 30747

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 30709

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U F1	0.0998	0.02646	F1	mg/Kg		27	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.200	0.03952	F1	mg/Kg		20	70 - 130
o-Xylene	<0.00199	U F1	0.0998	0.02829	F1	mg/Kg		28	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	86		70 - 130

Lab Sample ID: 880-17263-A-16-F MSD

Matrix: Solid

Analysis Batch: 30747

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 30709

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.0994	0.03891	F1	mg/Kg		39	70 - 130	21	35
Toluene	<0.00199	U F1	0.0994	0.03672	F1	mg/Kg		37	70 - 130	19	35
Ethylbenzene	<0.00199	U F1	0.0994	0.03381	F1	mg/Kg		34	70 - 130	24	35
m-Xylene & p-Xylene	<0.00398	U F1 F2	0.199	0.06725	F1 F2	mg/Kg		34	70 - 130	52	35
o-Xylene	<0.00199	U F1	0.0994	0.03668	F1	mg/Kg		37	70 - 130	26	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

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

Lab Sample ID: MB 880-30765/1-A

Matrix: Solid

Analysis Batch: 30743

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 30765

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		07/27/22 08:40	07/27/22 09:41	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/27/22 08:40	07/27/22 09:41	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/27/22 08:40	07/27/22 09:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130	07/27/22 08:40	07/27/22 09:41	1
o-Terphenyl	83		70 - 130	07/27/22 08:40	07/27/22 09:41	1

Lab Sample ID: LCS 880-30765/2-A

Matrix: Solid

Analysis Batch: 30743

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 30765

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1071		mg/Kg		107	70 - 130
Diesel Range Organics (Over C10-C28)	1000	848.8		mg/Kg		85	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2649-1
SDG: Eddy County

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

Lab Sample ID: LCS 880-30765/2-A

Matrix: Solid

Analysis Batch: 30743

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 30765

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	82		70 - 130

Lab Sample ID: LCSD 880-30765/3-A

Matrix: Solid

Analysis Batch: 30743

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 30765

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1037		mg/Kg		104	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	1108	*1	mg/Kg		111	70 - 130	26	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	108		70 - 130

Lab Sample ID: 880-17301-A-1-E MS

Matrix: Solid

Analysis Batch: 30743

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 30765

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1100		mg/Kg		106	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U *1	1000	760.4		mg/Kg		76	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	88		70 - 130

Lab Sample ID: 880-17301-A-1-F MSD

Matrix: Solid

Analysis Batch: 30743

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 30765

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	1099		mg/Kg		106	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<50.0	U *1	999	782.1		mg/Kg		78	70 - 130	3	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	89		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2649-1
SDG: Eddy County

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-30791/1-A

Matrix: Solid

Analysis Batch: 30793

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			07/27/22 11:26	1

Lab Sample ID: LCS 880-30791/2-A

Matrix: Solid

Analysis Batch: 30793

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	251.0		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-30791/3-A

Matrix: Solid

Analysis Batch: 30793

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	250.9		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 880-17397-A-1-B MS

Matrix: Solid

Analysis Batch: 30793

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	94.1		498	607.5		mg/Kg		103	90 - 110

Lab Sample ID: 880-17397-A-1-C MSD

Matrix: Solid

Analysis Batch: 30793

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	94.1		498	607.7		mg/Kg		103	90 - 110	0	20

Lab Sample ID: 890-2649-1 MS

Matrix: Solid

Analysis Batch: 30793

Client Sample ID: SS03

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	569		497	1041		mg/Kg		95	90 - 110

Lab Sample ID: 890-2649-1 MSD

Matrix: Solid

Analysis Batch: 30793

Client Sample ID: SS03

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	569		497	1024		mg/Kg		92	90 - 110	2	20

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QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2649-1
SDG: Eddy County

GC VOA

Prep Batch: 30709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2649-1	SS03	Total/NA	Solid	5035	
MB 880-30709/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-30709/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-30709/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-17263-A-16-E MS	Matrix Spike	Total/NA	Solid	5035	
880-17263-A-16-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 30747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2649-1	SS03	Total/NA	Solid	8021B	30709
MB 880-30709/5-A	Method Blank	Total/NA	Solid	8021B	30709
LCS 880-30709/1-A	Lab Control Sample	Total/NA	Solid	8021B	30709
LCSD 880-30709/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	30709
880-17263-A-16-E MS	Matrix Spike	Total/NA	Solid	8021B	30709
880-17263-A-16-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	30709

Analysis Batch: 30816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2649-1	SS03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 30743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2649-1	SS03	Total/NA	Solid	8015B NM	30765
MB 880-30765/1-A	Method Blank	Total/NA	Solid	8015B NM	30765
LCS 880-30765/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	30765
LCSD 880-30765/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	30765
880-17301-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	30765
880-17301-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	30765

Prep Batch: 30765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2649-1	SS03	Total/NA	Solid	8015NM Prep	
MB 880-30765/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-30765/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-30765/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-17301-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-17301-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 30833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2649-1	SS03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 30791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2649-1	SS03	Soluble	Solid	DI Leach	
MB 880-30791/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-30791/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-30791/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2649-1
SDG: Eddy County

HPLC/IC (Continued)

Leach Batch: 30791 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-17397-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-17397-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
890-2649-1 MS	SS03	Soluble	Solid	DI Leach	
890-2649-1 MSD	SS03	Soluble	Solid	DI Leach	

Analysis Batch: 30793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2649-1	SS03	Soluble	Solid	300.0	30791
MB 880-30791/1-A	Method Blank	Soluble	Solid	300.0	30791
LCS 880-30791/2-A	Lab Control Sample	Soluble	Solid	300.0	30791
LCSD 880-30791/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	30791
880-17397-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	30791
880-17397-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	30791
890-2649-1 MS	SS03	Soluble	Solid	300.0	30791
890-2649-1 MSD	SS03	Soluble	Solid	300.0	30791

Lab Chronicle

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2649-1
SDG: Eddy County

Client Sample ID: SS03
Date Collected: 07/25/22 13:20
Date Received: 07/26/22 08:47

Lab Sample ID: 890-2649-1
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	30709	07/27/22 10:00	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	30747	07/27/22 12:38	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30816	07/27/22 13:21	SM	XEN MID
Total/NA	Analysis	8015 NM		1			30833	07/27/22 15:34	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	30765	07/27/22 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			30743	07/27/22 12:37	SM	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	30791	07/27/22 11:00	SMC	XEN MID
Soluble	Analysis	300.0		1			30793	07/27/22 14:21	SMC	XEN MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2649-1
SDG: Eddy County

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	T104704400-22-24	06-30-23

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

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

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

Method Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2649-1
SDG: Eddy County

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

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Sample Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2649-1
SDG: Eddy County

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2649-1	SS03	Solid	07/25/22 13:20	07/26/22 08:47	6"

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

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

Environment Testing
Xenco



Work Order No:

www.xenco.com Page 1 of 1

Work Order Comments

Program: ☐ UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐

State of Project: ☐ Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐

Reporting: ☐ Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐

Deliverables: ☐ EDD ☐ ADAPT ☐ Other:

Project Manager: Tecoma Morrissey

Company Name: Enasolam

Address: 3122 National Parks Hwy

City, State ZIP: Carlsbad NM 88220

Phone: 337-257-8307

Bill to: (if different) Garrett Green

Company Name: XTO Energy

Address: 3104 E Glene St

City, State ZIP: Carlsbad NM 88220

Email:

Project Name: Coral Canyon 8-32

Project Number: 0381558058

Project Location: Eddy County

Sampler's Name: CB

PO #:

SAMPLE RECEIPT

Samples Received Intact: ☒ Yes ☐ No

Cooler Custody Seals: ☒ Yes ☐ No

Sample Custody Seals: ☒ Yes ☐ No

Total Containers: 2

Temp Blank: ☒ Yes ☐ No

Wet Ice: ☒ Yes ☐ No

Thermometer ID: TAN-007

Correction Factor: -0.2

Temperature Reading: 2.2

Corrected Temperature: 2.0

Turn Around: ☐ Routine ☒ Rush

Due Date: 24hr

TAT starts the day received by the lab, if received by 4:30pm

Parameters

Pres. Code

ANALYSIS REQUEST

890-2849 Chain of Custody

Sample Identification

Matrix

Date Sampled

Time Sampled

Depth

Grab/Comp

of Cont

Sample Comments

Total 200.7 / 6010 2008 / 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 SiO₂ Na Sr Ti Sn U V Zn

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

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

Relinquished by: (Signature) Dorenda Stutz Date/Time 7/26/22 0840

Received by: (Signature) [Signature] Date/Time [Blank]

Relinquished by: (Signature) [Blank] Date/Time [Blank]

Received by: (Signature) [Blank] Date/Time [Blank]

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2649-1

SDG Number: Eddy County

Login Number: 2649

List Number: 1

Creator: Kramer, Jessica

List Source: Eurofins Carlsbad

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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2649-1

SDG Number: Eddy County

Login Number: 2649

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 07/27/22 10:48 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	



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2647-1

Laboratory Sample Delivery Group: Eddy County
Client Project/Site: Corral Canyon 8-32

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Tacoma Morrissey

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:

7/27/2022 3:43:16 PM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

LINKS

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results through



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www.eurofinsus.com/Env

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

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

Client: Ensolum
Project/Site: Corral Canyon 8-32

Laboratory Job ID: 890-2647-1
SDG: Eddy County

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Definitions/Glossary

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2647-1
SDG: Eddy County

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2647-1
SDG: Eddy County

Job ID: 890-2647-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2647-1

Receipt

The sample was received on 7/26/2022 8:47 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-30709 and analytical batch 880-30747 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.

GC Semi VOA

Method 8015MOD_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-30765 and analytical batch 880-30743 recovered outside control limits for the following analytes: Diesel Range Organics (Over C10-C28).

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

HPLC/IC

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

Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2647-1
SDG: Eddy County

Client Sample ID: SS05

Lab Sample ID: 890-2647-1

Date Collected: 07/25/22 13:40

Matrix: Solid

Date Received: 07/26/22 08:47

Sample Depth: 6"

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		07/27/22 10:00	07/27/22 11:57	1
Toluene	<0.00201	U	0.00201	mg/Kg		07/27/22 10:00	07/27/22 11:57	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		07/27/22 10:00	07/27/22 11:57	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		07/27/22 10:00	07/27/22 11:57	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		07/27/22 10:00	07/27/22 11:57	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		07/27/22 10:00	07/27/22 11:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	07/27/22 10:00	07/27/22 11:57	1
1,4-Difluorobenzene (Surr)	89		70 - 130	07/27/22 10:00	07/27/22 11:57	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			07/27/22 13:21	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	50.6		50.0	mg/Kg			07/27/22 15:34	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/27/22 08:40	07/27/22 11:55	1
Diesel Range Organics (Over C10-C28)	<50.0	U *1	50.0	mg/Kg		07/27/22 08:40	07/27/22 11:55	1
Oil Range Organics (Over C28-C36)	50.6		50.0	mg/Kg		07/27/22 08:40	07/27/22 11:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130	07/27/22 08:40	07/27/22 11:55	1
o-Terphenyl	94		70 - 130	07/27/22 08:40	07/27/22 11:55	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	289		5.00	mg/Kg			07/27/22 14:02	1

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Surrogate Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2647-1
SDG: Eddy County

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-17263-A-16-E MS	Matrix Spike	114	86
880-17263-A-16-F MSD	Matrix Spike Duplicate	115	94
890-2647-1	SS05	112	89
LCS 880-30709/1-A	Lab Control Sample	110	99
LCSD 880-30709/2-A	Lab Control Sample Dup	104	95
MB 880-30709/5-A	Method Blank	101	84
Surrogate Legend			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-17301-A-1-E MS	Matrix Spike	99	88
880-17301-A-1-F MSD	Matrix Spike Duplicate	99	89
890-2647-1	SS05	90	94
LCS 880-30765/2-A	Lab Control Sample	89	82
LCSD 880-30765/3-A	Lab Control Sample Dup	107	108
MB 880-30765/1-A	Method Blank	82	83
Surrogate Legend			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2647-1
SDG: Eddy County

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-30709/5-A

Matrix: Solid

Analysis Batch: 30747

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 30709

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/27/22 08:00	07/27/22 10:54	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/27/22 08:00	07/27/22 10:54	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/27/22 08:00	07/27/22 10:54	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/27/22 08:00	07/27/22 10:54	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/27/22 08:00	07/27/22 10:54	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/27/22 08:00	07/27/22 10:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	07/27/22 08:00	07/27/22 10:54	1
1,4-Difluorobenzene (Surr)	84		70 - 130	07/27/22 08:00	07/27/22 10:54	1

Lab Sample ID: LCS 880-30709/1-A

Matrix: Solid

Analysis Batch: 30747

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 30709

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09414		mg/Kg		94	70 - 130
Toluene	0.100	0.09289		mg/Kg		93	70 - 130
Ethylbenzene	0.100	0.09941		mg/Kg		99	70 - 130
m-Xylene & p-Xylene	0.200	0.1985		mg/Kg		99	70 - 130
o-Xylene	0.100	0.1087		mg/Kg		109	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: LCSD 880-30709/2-A

Matrix: Solid

Analysis Batch: 30747

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 30709

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09253		mg/Kg		93	70 - 130	2	35
Toluene	0.100	0.09148		mg/Kg		91	70 - 130	2	35
Ethylbenzene	0.100	0.09626		mg/Kg		96	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.1928		mg/Kg		96	70 - 130	3	35
o-Xylene	0.100	0.1052		mg/Kg		105	70 - 130	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

Lab Sample ID: 880-17263-A-16-E MS

Matrix: Solid

Analysis Batch: 30747

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 30709

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U F1	0.0998	0.03151	F1	mg/Kg		32	70 - 130
Toluene	<0.00199	U F1	0.0998	0.03037	F1	mg/Kg		30	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2647-1
SDG: Eddy County

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

Lab Sample ID: 880-17263-A-16-E MS

Matrix: Solid

Analysis Batch: 30747

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 30709

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U F1	0.0998	0.02646	F1	mg/Kg		27	70 - 130
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.200	0.03952	F1	mg/Kg		20	70 - 130
o-Xylene	<0.00199	U F1	0.0998	0.02829	F1	mg/Kg		28	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	114		70 - 130
1,4-Difluorobenzene (Surr)	86		70 - 130

Lab Sample ID: 880-17263-A-16-F MSD

Matrix: Solid

Analysis Batch: 30747

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 30709

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.0994	0.03891	F1	mg/Kg		39	70 - 130	21	35
Toluene	<0.00199	U F1	0.0994	0.03672	F1	mg/Kg		37	70 - 130	19	35
Ethylbenzene	<0.00199	U F1	0.0994	0.03381	F1	mg/Kg		34	70 - 130	24	35
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.199	0.06725	F2 F1	mg/Kg		34	70 - 130	52	35
o-Xylene	<0.00199	U F1	0.0994	0.03668	F1	mg/Kg		37	70 - 130	26	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	115		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

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

Lab Sample ID: MB 880-30765/1-A

Matrix: Solid

Analysis Batch: 30743

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 30765

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		07/27/22 08:40	07/27/22 09:41	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/27/22 08:40	07/27/22 09:41	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/27/22 08:40	07/27/22 09:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130	07/27/22 08:40	07/27/22 09:41	1
o-Terphenyl	83		70 - 130	07/27/22 08:40	07/27/22 09:41	1

Lab Sample ID: LCS 880-30765/2-A

Matrix: Solid

Analysis Batch: 30743

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 30765

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1071		mg/Kg		107	70 - 130
Diesel Range Organics (Over C10-C28)	1000	848.8		mg/Kg		85	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2647-1
SDG: Eddy County

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

Lab Sample ID: LCS 880-30765/2-A

Matrix: Solid

Analysis Batch: 30743

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 30765

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	89		70 - 130
o-Terphenyl	82		70 - 130

Lab Sample ID: LCSD 880-30765/3-A

Matrix: Solid

Analysis Batch: 30743

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 30765

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1037		mg/Kg		104	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	1108	*1	mg/Kg		111	70 - 130	26	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	107		70 - 130
o-Terphenyl	108		70 - 130

Lab Sample ID: 880-17301-A-1-E MS

Matrix: Solid

Analysis Batch: 30743

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 30765

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	1000	1100		mg/Kg		106	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U *1	1000	760.4		mg/Kg		76	70 - 130

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	88		70 - 130

Lab Sample ID: 880-17301-A-1-F MSD

Matrix: Solid

Analysis Batch: 30743

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 30765

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	1099		mg/Kg		106	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<50.0	U *1	999	782.1		mg/Kg		78	70 - 130	3	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	99		70 - 130
o-Terphenyl	89		70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2647-1
SDG: Eddy County

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-30791/1-A

Matrix: Solid

Analysis Batch: 30793

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			07/27/22 11:26	1

Lab Sample ID: LCS 880-30791/2-A

Matrix: Solid

Analysis Batch: 30793

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	251.0		mg/Kg		100	90 - 110

Lab Sample ID: LCSD 880-30791/3-A

Matrix: Solid

Analysis Batch: 30793

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	250.9		mg/Kg		100	90 - 110	0	20

Lab Sample ID: 880-17397-A-1-B MS

Matrix: Solid

Analysis Batch: 30793

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	94.1		498	607.5		mg/Kg		103	90 - 110

Lab Sample ID: 880-17397-A-1-C MSD

Matrix: Solid

Analysis Batch: 30793

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	94.1		498	607.7		mg/Kg		103	90 - 110	0	20

Lab Sample ID: 890-2649-A-1-F MS

Matrix: Solid

Analysis Batch: 30793

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	569		497	1041		mg/Kg		95	90 - 110

Lab Sample ID: 890-2649-A-1-G MSD

Matrix: Solid

Analysis Batch: 30793

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	569		497	1024		mg/Kg		92	90 - 110	2	20

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QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2647-1
SDG: Eddy County

GC VOA

Prep Batch: 30709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2647-1	SS05	Total/NA	Solid	5035	
MB 880-30709/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-30709/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-30709/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-17263-A-16-E MS	Matrix Spike	Total/NA	Solid	5035	
880-17263-A-16-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 30747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2647-1	SS05	Total/NA	Solid	8021B	30709
MB 880-30709/5-A	Method Blank	Total/NA	Solid	8021B	30709
LCS 880-30709/1-A	Lab Control Sample	Total/NA	Solid	8021B	30709
LCSD 880-30709/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	30709
880-17263-A-16-E MS	Matrix Spike	Total/NA	Solid	8021B	30709
880-17263-A-16-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	30709

Analysis Batch: 30814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2647-1	SS05	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 30743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2647-1	SS05	Total/NA	Solid	8015B NM	30765
MB 880-30765/1-A	Method Blank	Total/NA	Solid	8015B NM	30765
LCS 880-30765/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	30765
LCSD 880-30765/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	30765
880-17301-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	30765
880-17301-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	30765

Prep Batch: 30765

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2647-1	SS05	Total/NA	Solid	8015NM Prep	
MB 880-30765/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-30765/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-30765/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-17301-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-17301-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 30831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2647-1	SS05	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 30791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2647-1	SS05	Soluble	Solid	DI Leach	
MB 880-30791/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-30791/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-30791/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2647-1
SDG: Eddy County

HPLC/IC (Continued)

Leach Batch: 30791 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-17397-A-1-B MS	Matrix Spike	Soluble	Solid	DI Leach	
880-17397-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	
890-2649-A-1-F MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2649-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 30793

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2647-1	SS05	Soluble	Solid	300.0	30791
MB 880-30791/1-A	Method Blank	Soluble	Solid	300.0	30791
LCS 880-30791/2-A	Lab Control Sample	Soluble	Solid	300.0	30791
LCSD 880-30791/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	30791
880-17397-A-1-B MS	Matrix Spike	Soluble	Solid	300.0	30791
880-17397-A-1-C MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	30791
890-2649-A-1-F MS	Matrix Spike	Soluble	Solid	300.0	30791
890-2649-A-1-G MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	30791

Lab Chronicle

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2647-1
SDG: Eddy County

Client Sample ID: SS05
Date Collected: 07/25/22 13:40
Date Received: 07/26/22 08:47

Lab Sample ID: 890-2647-1
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			4.98 g	5 mL	30709	07/27/22 10:00	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	30747	07/27/22 11:57	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			30814	07/27/22 13:21	SM	XEN MID
Total/NA	Analysis	8015 NM		1			30831	07/27/22 15:34	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	30765	07/27/22 08:40	DM	XEN MID
Total/NA	Analysis	8015B NM		1			30743	07/27/22 11:55	SM	XEN MID
Soluble	Leach	DI Leach			5.00 g	50 mL	30791	07/27/22 11:00	SMC	XEN MID
Soluble	Analysis	300.0		1			30793	07/27/22 14:02	SMC	XEN MID

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2647-1
SDG: Eddy County

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	T104704400-22-24	06-30-23

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

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

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

Method Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2647-1
SDG: Eddy County

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Eurofins Carlsbad

Sample Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32

Job ID: 890-2647-1
SDG: Eddy County

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2647-1	SS05	Solid	07/25/22 13:40	07/26/22 08:47	6"

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



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Environment Testing
Xenco

Chain of Custody

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

Work Order No:

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

Project Manager:	Tacoma Morrissey		Bill to: (if different)	Garrett Green
Company Name:	Ensolam		Company Name:	XTO Energy
Address:	3122 National Parks Hwy		Address:	3104 E Glendale St
City, State ZIP:	Carksbad NM 88220		City, State ZIP:	Carksbad NM 88220
Phone:	331-357-8807		Email:	

[illegible]

Total	200.7 / 6010	200.8 / 6020:	
8RCRA	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 Ti Sn U V Zn	
			Hg: 1631 / 245.1 / 7470 / 7471
			TCIP/SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Aq Tl U

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 with Eurofins Xenco.

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	[Signature]	[Signature]	7/20/22			
2						
3						
4						
5						
6						

Revised Date 09/25/2020 Rev 2020 2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2647-1

SDG Number: Eddy County

Login Number: 2647

List Number: 1

Creator: Kramer, Jessica

List Source: Eurofins Carlsbad

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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2647-1

SDG Number: Eddy County

Login Number: 2647

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 07/27/22 10:48 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	



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2524-1

Laboratory Sample Delivery Group: 03E1558058

Client Project/Site: Corral Canyon 8-32 103H 1162H

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Tacoma Morrissey

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:

7/19/2022 2:13:33 PM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

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

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

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Laboratory Job ID: 890-2524-1
SDG: 03E1558058

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Definitions/Glossary

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Eurofins Carlsbad

Case Narrative

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Job ID: 890-2524-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2524-1

Receipt

The samples were received on 7/11/2022 8:42 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.2°C

GC VOA

Method Total_BTEX_GCV: The matrix spike duplicate (MSD) recoveries for preparation batch 880-29534 and analytical batch 880-29547 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: The matrix spike duplicate (MSD) recoveries for preparation batch 880-29534 and analytical batch 880-29547 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8021B: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 880-29772 and analytical batch 880-29882 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8021B: Surrogate recovery for the following samples were outside control limits: FS06 (890-2524-6) and FS09 (890-2524-9). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (LCSD 880-29959/2-A). Evidence of matrix interferences is not obvious.

Method 8021B: Surrogate recovery for the following sample was outside control limits: (890-2524-A-4-F MS). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: FS04 (890-2524-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: Surrogate recovery for the following sample was outside control limits: FS07 (890-2524-7). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8021B: The matrix spike duplicate (MSD) recoveries and precision for preparation batch 880-29959 and analytical batch 880-29895 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.

GC Semi VOA

Method 8015MOD_NM: The surrogate recovery for the blank associated with preparation batch 880-29507 and analytical batch 880-29497 was outside the upper control limits.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-29507 and analytical batch 880-29497 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.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (880-16754-A-17-C MS) and (880-16754-A-17-D MSD). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Case Narrative

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Job ID: 890-2524-1 (Continued)

Laboratory: Eurofins Carlsbad (Continued)

Method 8015MOD_NM: The matrix spike (MS) recoveries for preparation batch 880-29508 and analytical batch 880-29499 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8015MOD_NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-29505 and analytical batch 880-29501 was outside control limits. Sample non-homogeneity is suspected.

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

HPLC/IC

Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-29461 and analytical batch 880-29656 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: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Client Sample ID: FS01

Lab Sample ID: 890-2524-1

Date Collected: 07/09/22 13:55

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/14/22 16:34	07/17/22 17:41	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/14/22 16:34	07/17/22 17:41	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/14/22 16:34	07/17/22 17:41	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		07/14/22 16:34	07/17/22 17:41	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/14/22 16:34	07/17/22 17:41	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		07/14/22 16:34	07/17/22 17:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	07/14/22 16:34	07/17/22 17:41	1
1,4-Difluorobenzene (Surr)	95		70 - 130	07/14/22 16:34	07/17/22 17:41	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			07/18/22 15:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	133		49.9	mg/Kg			07/12/22 16:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		07/12/22 08:34	07/12/22 18:55	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		07/12/22 08:34	07/12/22 18:55	1
Oil Range Organics (Over C28-C36)	133		49.9	mg/Kg		07/12/22 08:34	07/12/22 18:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	109		70 - 130	07/12/22 08:34	07/12/22 18:55	1
o-Terphenyl	116		70 - 130	07/12/22 08:34	07/12/22 18:55	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1350		25.0	mg/Kg			07/16/22 00:41	5

Client Sample ID: FS02

Lab Sample ID: 890-2524-2

Date Collected: 07/09/22 14:00

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		07/14/22 16:34	07/17/22 18:01	1
Toluene	<0.00201	U	0.00201	mg/Kg		07/14/22 16:34	07/17/22 18:01	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		07/14/22 16:34	07/17/22 18:01	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		07/14/22 16:34	07/17/22 18:01	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		07/14/22 16:34	07/17/22 18:01	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		07/14/22 16:34	07/17/22 18:01	1

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Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Client Sample ID: FS02

Lab Sample ID: 890-2524-2

Date Collected: 07/09/22 14:00

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	07/14/22 16:34	07/17/22 18:01	1
1,4-Difluorobenzene (Surr)	95		70 - 130	07/14/22 16:34	07/17/22 18:01	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			07/18/22 15:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	372		50.0	mg/Kg			07/12/22 16:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/12/22 08:34	07/12/22 19:16	1
Diesel Range Organics (Over C10-C28)	73.2		50.0	mg/Kg		07/12/22 08:34	07/12/22 19:16	1
Oil Range Organics (Over C28-C36)	299		50.0	mg/Kg		07/12/22 08:34	07/12/22 19:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130	07/12/22 08:34	07/12/22 19:16	1
o-Terphenyl	101		70 - 130	07/12/22 08:34	07/12/22 19:16	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1590		25.0	mg/Kg			07/17/22 14:48	5

Client Sample ID: FS03

Lab Sample ID: 890-2524-3

Date Collected: 07/09/22 14:05

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		07/14/22 16:34	07/17/22 18:22	1
Toluene	<0.00199	U	0.00199	mg/Kg		07/14/22 16:34	07/17/22 18:22	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		07/14/22 16:34	07/17/22 18:22	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		07/14/22 16:34	07/17/22 18:22	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		07/14/22 16:34	07/17/22 18:22	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		07/14/22 16:34	07/17/22 18:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		70 - 130	07/14/22 16:34	07/17/22 18:22	1
1,4-Difluorobenzene (Surr)	95		70 - 130	07/14/22 16:34	07/17/22 18:22	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			07/18/22 15:39	1

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Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Client Sample ID: FS03

Lab Sample ID: 890-2524-3

Date Collected: 07/09/22 14:05

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	688		50.0	mg/Kg			07/12/22 16:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/12/22 08:38	07/12/22 17:09	1
Diesel Range Organics (Over C10-C28)	688		50.0	mg/Kg		07/12/22 08:38	07/12/22 17:09	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/12/22 08:38	07/12/22 17:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	103		70 - 130			07/12/22 08:38	07/12/22 17:09	1
o-Terphenyl	108		70 - 130			07/12/22 08:38	07/12/22 17:09	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1650		25.2	mg/Kg			07/16/22 01:12	5

Client Sample ID: FS04

Lab Sample ID: 890-2524-4

Date Collected: 07/09/22 14:10

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000399	U F1 F2	0.000399	mg/Kg		07/18/22 13:46	07/19/22 03:13	1
Toluene	<0.000399	U F1 F2	0.000399	mg/Kg		07/18/22 13:46	07/19/22 03:13	1
Ethylbenzene	<0.000399	U F1 F2	0.000399	mg/Kg		07/18/22 13:46	07/19/22 03:13	1
m-Xylene & p-Xylene	<0.000798	U F1 F2	0.000798	mg/Kg		07/18/22 13:46	07/19/22 03:13	1
o-Xylene	<0.000399	U F2	0.000399	mg/Kg		07/18/22 13:46	07/19/22 03:13	1
Xylenes, Total	<0.000798	U F1 F2	0.000798	mg/Kg		07/18/22 13:46	07/19/22 03:13	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130			07/18/22 13:46	07/19/22 03:13	1
1,4-Difluorobenzene (Surr)	87		70 - 130			07/18/22 13:46	07/19/22 03:13	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000798	U	0.000798	mg/Kg			07/18/22 15:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	944		49.9	mg/Kg			07/12/22 16:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		07/12/22 08:38	07/12/22 17:31	1
Diesel Range Organics (Over C10-C28)	944		49.9	mg/Kg		07/12/22 08:38	07/12/22 17:31	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/12/22 08:38	07/12/22 17:31	1

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Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Client Sample ID: FS04

Lab Sample ID: 890-2524-4

Date Collected: 07/09/22 14:10

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130	07/12/22 08:38	07/12/22 17:31	1
o-Terphenyl	113		70 - 130	07/12/22 08:38	07/12/22 17:31	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2570		24.9	mg/Kg			07/16/22 01:22	5

Client Sample ID: FS05

Lab Sample ID: 890-2524-5

Date Collected: 07/09/22 14:15

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000398	U	0.000398	mg/Kg		07/18/22 13:46	07/19/22 03:39	1
Toluene	<0.000398	U	0.000398	mg/Kg		07/18/22 13:46	07/19/22 03:39	1
Ethylbenzene	<0.000398	U	0.000398	mg/Kg		07/18/22 13:46	07/19/22 03:39	1
m-Xylene & p-Xylene	<0.000795	U	0.000795	mg/Kg		07/18/22 13:46	07/19/22 03:39	1
o-Xylene	<0.000398	U	0.000398	mg/Kg		07/18/22 13:46	07/19/22 03:39	1
Xylenes, Total	<0.000795	U	0.000795	mg/Kg		07/18/22 13:46	07/19/22 03:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130	07/18/22 13:46	07/19/22 03:39	1
1,4-Difluorobenzene (Surr)	85		70 - 130	07/18/22 13:46	07/19/22 03:39	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000795	U	0.000795	mg/Kg			07/18/22 15:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	102		50.0	mg/Kg			07/12/22 16:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/12/22 08:38	07/12/22 17:51	1
Diesel Range Organics (Over C10-C28)	102		50.0	mg/Kg		07/12/22 08:38	07/12/22 17:51	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/12/22 08:38	07/12/22 17:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	115		70 - 130	07/12/22 08:38	07/12/22 17:51	1
o-Terphenyl	116		70 - 130	07/12/22 08:38	07/12/22 17:51	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1640		24.8	mg/Kg			07/16/22 01:31	5

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Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Client Sample ID: FS06

Lab Sample ID: 890-2524-6

Date Collected: 07/09/22 14:20

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000402	U	0.000402	mg/Kg		07/18/22 13:46	07/19/22 04:04	1
Toluene	<0.000402	U	0.000402	mg/Kg		07/18/22 13:46	07/19/22 04:04	1
Ethylbenzene	<0.000402	U	0.000402	mg/Kg		07/18/22 13:46	07/19/22 04:04	1
m-Xylene & p-Xylene	<0.000803	U	0.000803	mg/Kg		07/18/22 13:46	07/19/22 04:04	1
o-Xylene	<0.000402	U	0.000402	mg/Kg		07/18/22 13:46	07/19/22 04:04	1
Xylenes, Total	<0.000803	U	0.000803	mg/Kg		07/18/22 13:46	07/19/22 04:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	139	S1+	70 - 130	07/18/22 13:46	07/19/22 04:04	1
1,4-Difluorobenzene (Surr)	92		70 - 130	07/18/22 13:46	07/19/22 04:04	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000803	U	0.000803	mg/Kg			07/18/22 15:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	80.7		49.9	mg/Kg			07/12/22 16:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		07/12/22 08:38	07/12/22 18:12	1
Diesel Range Organics (Over C10-C28)	80.7		49.9	mg/Kg		07/12/22 08:38	07/12/22 18:12	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/12/22 08:38	07/12/22 18:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	104		70 - 130	07/12/22 08:38	07/12/22 18:12	1
o-Terphenyl	106		70 - 130	07/12/22 08:38	07/12/22 18:12	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1440		24.9	mg/Kg			07/16/22 01:40	5

Client Sample ID: FS07

Lab Sample ID: 890-2524-7

Date Collected: 07/09/22 14:35

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000399	U	0.000399	mg/Kg		07/18/22 13:46	07/19/22 04:30	1
Toluene	<0.000399	U	0.000399	mg/Kg		07/18/22 13:46	07/19/22 04:30	1
Ethylbenzene	<0.000399	U	0.000399	mg/Kg		07/18/22 13:46	07/19/22 04:30	1
m-Xylene & p-Xylene	<0.000798	U	0.000798	mg/Kg		07/18/22 13:46	07/19/22 04:30	1
o-Xylene	<0.000399	U	0.000399	mg/Kg		07/18/22 13:46	07/19/22 04:30	1
Xylenes, Total	<0.000798	U	0.000798	mg/Kg		07/18/22 13:46	07/19/22 04:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	132	S1+	70 - 130	07/18/22 13:46	07/19/22 04:30	1

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Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Client Sample ID: FS07

Lab Sample ID: 890-2524-7

Date Collected: 07/09/22 14:35

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	91		70 - 130	07/18/22 13:46	07/19/22 04:30	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000798	U	0.000798	mg/Kg			07/18/22 15:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	281		49.9	mg/Kg			07/12/22 16:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		07/12/22 08:38	07/12/22 18:34	1
Diesel Range Organics (Over C10-C28)	281		49.9	mg/Kg		07/12/22 08:38	07/12/22 18:34	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/12/22 08:38	07/12/22 18:34	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130			07/12/22 08:38	07/12/22 18:34	1
o-Terphenyl	114		70 - 130			07/12/22 08:38	07/12/22 18:34	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1880	F1	25.0	mg/Kg			07/16/22 01:49	5

Client Sample ID: FS08

Lab Sample ID: 890-2524-8

Date Collected: 07/09/22 14:40

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000398	U	0.000398	mg/Kg		07/18/22 13:46	07/19/22 04:55	1
Toluene	<0.000398	U	0.000398	mg/Kg		07/18/22 13:46	07/19/22 04:55	1
Ethylbenzene	<0.000398	U	0.000398	mg/Kg		07/18/22 13:46	07/19/22 04:55	1
m-Xylene & p-Xylene	<0.000795	U	0.000795	mg/Kg		07/18/22 13:46	07/19/22 04:55	1
o-Xylene	<0.000398	U	0.000398	mg/Kg		07/18/22 13:46	07/19/22 04:55	1
Xylenes, Total	<0.000795	U	0.000795	mg/Kg		07/18/22 13:46	07/19/22 04:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	07/18/22 13:46	07/19/22 04:55	1
1,4-Difluorobenzene (Surr)	81		70 - 130	07/18/22 13:46	07/19/22 04:55	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000795	U	0.000795	mg/Kg			07/18/22 15:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	486		50.0	mg/Kg			07/12/22 16:24	1

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Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Client Sample ID: FS08

Lab Sample ID: 890-2524-8

Date Collected: 07/09/22 14:40

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/12/22 08:38	07/12/22 18:55	1
Diesel Range Organics (Over C10-C28)	486		50.0	mg/Kg		07/12/22 08:38	07/12/22 18:55	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/12/22 08:38	07/12/22 18:55	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	111		70 - 130			07/12/22 08:38	07/12/22 18:55	1
o-Terphenyl	112		70 - 130			07/12/22 08:38	07/12/22 18:55	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1590		25.3	mg/Kg			07/16/22 02:17	5

Client Sample ID: FS09

Lab Sample ID: 890-2524-9

Date Collected: 07/09/22 15:06

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000401	U	0.000401	mg/Kg		07/18/22 13:46	07/19/22 05:21	1
Toluene	<0.000401	U	0.000401	mg/Kg		07/18/22 13:46	07/19/22 05:21	1
Ethylbenzene	<0.000401	U	0.000401	mg/Kg		07/18/22 13:46	07/19/22 05:21	1
m-Xylene & p-Xylene	<0.000802	U	0.000802	mg/Kg		07/18/22 13:46	07/19/22 05:21	1
o-Xylene	<0.000401	U	0.000401	mg/Kg		07/18/22 13:46	07/19/22 05:21	1
Xylenes, Total	<0.000802	U	0.000802	mg/Kg		07/18/22 13:46	07/19/22 05:21	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	140	S1+	70 - 130			07/18/22 13:46	07/19/22 05:21	1
1,4-Difluorobenzene (Surr)	94		70 - 130			07/18/22 13:46	07/19/22 05:21	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000802	U	0.000802	mg/Kg			07/18/22 15:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	187		49.9	mg/Kg			07/12/22 16:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		07/12/22 08:38	07/12/22 19:16	1
Diesel Range Organics (Over C10-C28)	187		49.9	mg/Kg		07/12/22 08:38	07/12/22 19:16	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/12/22 08:38	07/12/22 19:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	110		70 - 130			07/12/22 08:38	07/12/22 19:16	1
o-Terphenyl	113		70 - 130			07/12/22 08:38	07/12/22 19:16	1

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Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Client Sample ID: FS09

Lab Sample ID: 890-2524-9

Date Collected: 07/09/22 15:06

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1460		5.04	mg/Kg			07/16/22 02:26	1

Client Sample ID: FS10

Lab Sample ID: 890-2524-10

Date Collected: 07/09/22 15:10

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		07/18/22 13:46	07/19/22 05:46	1
Toluene	<0.00201	U	0.00201	mg/Kg		07/18/22 13:46	07/19/22 05:46	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		07/18/22 13:46	07/19/22 05:46	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		07/18/22 13:46	07/19/22 05:46	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		07/18/22 13:46	07/19/22 05:46	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		07/18/22 13:46	07/19/22 05:46	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130			07/18/22 13:46	07/19/22 05:46	1
1,4-Difluorobenzene (Surr)	85		70 - 130			07/18/22 13:46	07/19/22 05:46	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			07/18/22 15:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	76.1		50.0	mg/Kg			07/12/22 16:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/12/22 08:43	07/12/22 13:04	1
Diesel Range Organics (Over C10-C28)	76.1		50.0	mg/Kg		07/12/22 08:43	07/12/22 13:04	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/12/22 08:43	07/12/22 13:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130			07/12/22 08:43	07/12/22 13:04	1
o-Terphenyl	102		70 - 130			07/12/22 08:43	07/12/22 13:04	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	858		5.04	mg/Kg			07/16/22 02:54	1

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Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Client Sample ID: FS11

Lab Sample ID: 890-2524-11

Date Collected: 07/08/22 11:00

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		07/12/22 10:47	07/12/22 15:11	1
Toluene	<0.00199	U	0.00199	mg/Kg		07/12/22 10:47	07/12/22 15:11	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		07/12/22 10:47	07/12/22 15:11	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		07/12/22 10:47	07/12/22 15:11	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		07/12/22 10:47	07/12/22 15:11	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		07/12/22 10:47	07/12/22 15:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	92		70 - 130	07/12/22 10:47	07/12/22 15:11	1
1,4-Difluorobenzene (Surr)	84		70 - 130	07/12/22 10:47	07/12/22 15:11	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			07/12/22 15:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			07/12/22 16:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		07/12/22 08:43	07/12/22 12:20	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		07/12/22 08:43	07/12/22 12:20	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		07/12/22 08:43	07/12/22 12:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	07/12/22 08:43	07/12/22 12:20	1
o-Terphenyl	113		70 - 130	07/12/22 08:43	07/12/22 12:20	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1030		25.0	mg/Kg			07/12/22 19:46	5

Client Sample ID: FS12

Lab Sample ID: 890-2524-12

Date Collected: 07/09/22 15:20

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000404	U	0.000404	mg/Kg		07/18/22 13:46	07/19/22 06:12	1
Toluene	<0.000404	U	0.000404	mg/Kg		07/18/22 13:46	07/19/22 06:12	1
Ethylbenzene	<0.000404	U	0.000404	mg/Kg		07/18/22 13:46	07/19/22 06:12	1
m-Xylene & p-Xylene	<0.000808	U	0.000808	mg/Kg		07/18/22 13:46	07/19/22 06:12	1
o-Xylene	<0.000404	U	0.000404	mg/Kg		07/18/22 13:46	07/19/22 06:12	1
Xylenes, Total	<0.000808	U	0.000808	mg/Kg		07/18/22 13:46	07/19/22 06:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130	07/18/22 13:46	07/19/22 06:12	1

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Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Client Sample ID: FS12

Lab Sample ID: 890-2524-12

Date Collected: 07/09/22 15:20

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	85		70 - 130	07/18/22 13:46	07/19/22 06:12	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000808	U	0.000808	mg/Kg			07/18/22 15:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			07/12/22 16:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/12/22 08:43	07/12/22 13:25	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/12/22 08:43	07/12/22 13:25	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/12/22 08:43	07/12/22 13:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130			07/12/22 08:43	07/12/22 13:25	1
o-Terphenyl	95		70 - 130			07/12/22 08:43	07/12/22 13:25	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1230		4.98	mg/Kg			07/16/22 03:03	1

Client Sample ID: FS13

Lab Sample ID: 890-2524-13

Date Collected: 07/09/22 15:30

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000399	U	0.000399	mg/Kg		07/18/22 13:46	07/19/22 06:38	1
Toluene	<0.000399	U	0.000399	mg/Kg		07/18/22 13:46	07/19/22 06:38	1
Ethylbenzene	<0.000399	U	0.000399	mg/Kg		07/18/22 13:46	07/19/22 06:38	1
m-Xylene & p-Xylene	<0.000798	U	0.000798	mg/Kg		07/18/22 13:46	07/19/22 06:38	1
o-Xylene	<0.000399	U	0.000399	mg/Kg		07/18/22 13:46	07/19/22 06:38	1
Xylenes, Total	<0.000798	U	0.000798	mg/Kg		07/18/22 13:46	07/19/22 06:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130	07/18/22 13:46	07/19/22 06:38	1
1,4-Difluorobenzene (Surr)	80		70 - 130	07/18/22 13:46	07/19/22 06:38	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000798	U	0.000798	mg/Kg			07/18/22 15:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	303		50.0	mg/Kg			07/12/22 16:24	1

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Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Client Sample ID: FS13

Lab Sample ID: 890-2524-13

Date Collected: 07/09/22 15:30

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/12/22 08:43	07/12/22 13:47	1
Diesel Range Organics (Over C10-C28)	303		50.0	mg/Kg		07/12/22 08:43	07/12/22 13:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/12/22 08:43	07/12/22 13:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130			07/12/22 08:43	07/12/22 13:47	1
o-Terphenyl	103		70 - 130			07/12/22 08:43	07/12/22 13:47	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2120		25.0	mg/Kg			07/16/22 03:12	5

Client Sample ID: FS14

Lab Sample ID: 890-2524-14

Date Collected: 07/09/22 15:35

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.000398	U	0.000398	mg/Kg		07/18/22 13:46	07/19/22 07:04	1
Toluene	<0.000398	U	0.000398	mg/Kg		07/18/22 13:46	07/19/22 07:04	1
Ethylbenzene	<0.000398	U	0.000398	mg/Kg		07/18/22 13:46	07/19/22 07:04	1
m-Xylene & p-Xylene	<0.000795	U	0.000795	mg/Kg		07/18/22 13:46	07/19/22 07:04	1
o-Xylene	<0.000398	U	0.000398	mg/Kg		07/18/22 13:46	07/19/22 07:04	1
Xylenes, Total	<0.000795	U	0.000795	mg/Kg		07/18/22 13:46	07/19/22 07:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	125		70 - 130			07/18/22 13:46	07/19/22 07:04	1
1,4-Difluorobenzene (Surr)	80		70 - 130			07/18/22 13:46	07/19/22 07:04	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.000795	U	0.000795	mg/Kg			07/18/22 15:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	101		49.8	mg/Kg			07/12/22 16:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8	mg/Kg		07/12/22 08:43	07/12/22 14:09	1
Diesel Range Organics (Over C10-C28)	101		49.8	mg/Kg		07/12/22 08:43	07/12/22 14:09	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		07/12/22 08:43	07/12/22 14:09	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	90		70 - 130			07/12/22 08:43	07/12/22 14:09	1
o-Terphenyl	95		70 - 130			07/12/22 08:43	07/12/22 14:09	1

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Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Client Sample ID: FS14

Lab Sample ID: 890-2524-14

Date Collected: 07/09/22 15:35

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3020		25.0	mg/Kg			07/16/22 03:22	5

Client Sample ID: FS15

Lab Sample ID: 890-2524-15

Date Collected: 07/08/22 11:15

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/12/22 10:47	07/12/22 15:32	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/12/22 10:47	07/12/22 15:32	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/12/22 10:47	07/12/22 15:32	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		07/12/22 10:47	07/12/22 15:32	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/12/22 10:47	07/12/22 15:32	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		07/12/22 10:47	07/12/22 15:32	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		70 - 130			07/12/22 10:47	07/12/22 15:32	1
1,4-Difluorobenzene (Surr)	87		70 - 130			07/12/22 10:47	07/12/22 15:32	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			07/12/22 15:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	281		50.0	mg/Kg			07/12/22 16:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/12/22 08:43	07/12/22 12:42	1
Diesel Range Organics (Over C10-C28)	281		50.0	mg/Kg		07/12/22 08:43	07/12/22 12:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/12/22 08:43	07/12/22 12:42	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130			07/12/22 08:43	07/12/22 12:42	1
o-Terphenyl	104		70 - 130			07/12/22 08:43	07/12/22 12:42	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1890		24.8	mg/Kg			07/12/22 19:56	5

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Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Client Sample ID: FS16

Lab Sample ID: 890-2524-16

Date Collected: 07/08/22 11:20

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198	mg/Kg		07/12/22 10:47	07/12/22 15:52	1
Toluene	<0.00198	U	0.00198	mg/Kg		07/12/22 10:47	07/12/22 15:52	1
Ethylbenzene	<0.00198	U	0.00198	mg/Kg		07/12/22 10:47	07/12/22 15:52	1
m-Xylene & p-Xylene	<0.00396	U	0.00396	mg/Kg		07/12/22 10:47	07/12/22 15:52	1
o-Xylene	<0.00198	U	0.00198	mg/Kg		07/12/22 10:47	07/12/22 15:52	1
Xylenes, Total	<0.00396	U	0.00396	mg/Kg		07/12/22 10:47	07/12/22 15:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	07/12/22 10:47	07/12/22 15:52	1
1,4-Difluorobenzene (Surr)	91		70 - 130	07/12/22 10:47	07/12/22 15:52	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			07/12/22 15:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	216		49.9	mg/Kg			07/12/22 16:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9	mg/Kg		07/12/22 08:46	07/12/22 12:20	1
Diesel Range Organics (Over C10-C28)	164		49.9	mg/Kg		07/12/22 08:46	07/12/22 12:20	1
Oil Range Organics (Over C28-C36)	51.7		49.9	mg/Kg		07/12/22 08:46	07/12/22 12:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130	07/12/22 08:46	07/12/22 12:20	1
o-Terphenyl	93		70 - 130	07/12/22 08:46	07/12/22 12:20	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2130		24.9	mg/Kg			07/12/22 18:17	5

Client Sample ID: FS17

Lab Sample ID: 890-2524-17

Date Collected: 07/08/22 11:25

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/12/22 10:47	07/12/22 16:13	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/12/22 10:47	07/12/22 16:13	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/12/22 10:47	07/12/22 16:13	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/12/22 10:47	07/12/22 16:13	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/12/22 10:47	07/12/22 16:13	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/12/22 10:47	07/12/22 16:13	1

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Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Client Sample ID: FS17

Lab Sample ID: 890-2524-17

Date Collected: 07/08/22 11:25

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	07/12/22 10:47	07/12/22 16:13	1
1,4-Difluorobenzene (Surr)	82		70 - 130	07/12/22 10:47	07/12/22 16:13	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			07/12/22 15:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			07/12/22 16:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/12/22 08:46	07/12/22 12:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/12/22 08:46	07/12/22 12:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/12/22 08:46	07/12/22 12:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130	07/12/22 08:46	07/12/22 12:42	1
o-Terphenyl	93		70 - 130	07/12/22 08:46	07/12/22 12:42	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2050		25.3	mg/Kg			07/12/22 18:25	5

Client Sample ID: FS18

Lab Sample ID: 890-2524-18

Date Collected: 07/08/22 14:50

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202	mg/Kg		07/12/22 10:47	07/12/22 16:33	1
Toluene	<0.00202	U	0.00202	mg/Kg		07/12/22 10:47	07/12/22 16:33	1
Ethylbenzene	<0.00202	U	0.00202	mg/Kg		07/12/22 10:47	07/12/22 16:33	1
m-Xylene & p-Xylene	<0.00404	U	0.00404	mg/Kg		07/12/22 10:47	07/12/22 16:33	1
o-Xylene	<0.00202	U	0.00202	mg/Kg		07/12/22 10:47	07/12/22 16:33	1
Xylenes, Total	<0.00404	U	0.00404	mg/Kg		07/12/22 10:47	07/12/22 16:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	07/12/22 10:47	07/12/22 16:33	1
1,4-Difluorobenzene (Surr)	88		70 - 130	07/12/22 10:47	07/12/22 16:33	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00404	U	0.00404	mg/Kg			07/12/22 15:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	68.8		50.0	mg/Kg			07/12/22 16:24	1

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Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Client Sample ID: FS18

Lab Sample ID: 890-2524-18

Date Collected: 07/08/22 14:50

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1.5

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/12/22 08:46	07/12/22 13:04	1
Diesel Range Organics (Over C10-C28)	68.8		50.0	mg/Kg		07/12/22 08:46	07/12/22 13:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/12/22 08:46	07/12/22 13:04	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	74		70 - 130			07/12/22 08:46	07/12/22 13:04	1
o-Terphenyl	74		70 - 130			07/12/22 08:46	07/12/22 13:04	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	202		4.99	mg/Kg			07/12/22 18:33	1

Client Sample ID: FS19

Lab Sample ID: 890-2524-19

Date Collected: 07/08/22 13:45

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		07/12/22 10:47	07/12/22 16:54	1
Toluene	<0.00201	U	0.00201	mg/Kg		07/12/22 10:47	07/12/22 16:54	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		07/12/22 10:47	07/12/22 16:54	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		07/12/22 10:47	07/12/22 16:54	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		07/12/22 10:47	07/12/22 16:54	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		07/12/22 10:47	07/12/22 16:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130			07/12/22 10:47	07/12/22 16:54	1
1,4-Difluorobenzene (Surr)	85		70 - 130			07/12/22 10:47	07/12/22 16:54	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			07/12/22 15:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	410		50.0	mg/Kg			07/12/22 16:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/12/22 08:46	07/12/22 13:25	1
Diesel Range Organics (Over C10-C28)	324		50.0	mg/Kg		07/12/22 08:46	07/12/22 13:25	1
Oil Range Organics (Over C28-C36)	86.4		50.0	mg/Kg		07/12/22 08:46	07/12/22 13:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	82		70 - 130			07/12/22 08:46	07/12/22 13:25	1
o-Terphenyl	87		70 - 130			07/12/22 08:46	07/12/22 13:25	1

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Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Client Sample ID: FS19

Lab Sample ID: 890-2524-19

Date Collected: 07/08/22 13:45

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1190		24.8	mg/Kg			07/12/22 18:41	5

Client Sample ID: FS20

Lab Sample ID: 890-2524-20

Date Collected: 07/08/22 14:44

Matrix: Solid

Date Received: 07/11/22 08:42

Sample Depth: 1

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		07/12/22 10:47	07/12/22 17:14	1
Toluene	<0.00201	U	0.00201	mg/Kg		07/12/22 10:47	07/12/22 17:14	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		07/12/22 10:47	07/12/22 17:14	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		07/12/22 10:47	07/12/22 17:14	1
o-Xylene	0.00581		0.00201	mg/Kg		07/12/22 10:47	07/12/22 17:14	1
Xylenes, Total	0.00581		0.00402	mg/Kg		07/12/22 10:47	07/12/22 17:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130			07/12/22 10:47	07/12/22 17:14	1
1,4-Difluorobenzene (Surr)	87		70 - 130			07/12/22 10:47	07/12/22 17:14	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	0.00581		0.00402	mg/Kg			07/12/22 15:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	362		50.0	mg/Kg			07/12/22 16:24	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/12/22 08:46	07/12/22 13:47	1
Diesel Range Organics (Over C10-C28)	275		50.0	mg/Kg		07/12/22 08:46	07/12/22 13:47	1
Oil Range Organics (Over C28-C36)	86.9		50.0	mg/Kg		07/12/22 08:46	07/12/22 13:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130			07/12/22 08:46	07/12/22 13:47	1
o-Terphenyl	97		70 - 130			07/12/22 08:46	07/12/22 13:47	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1030		5.00	mg/Kg			07/12/22 19:04	1

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Surrogate Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	BFB1	DFBZ1						
		(70-130)	(70-130)						
880-16804-A-1-A MS	Matrix Spike	103	101						
880-16804-A-1-B MSD	Matrix Spike Duplicate	98	99						
890-2523-A-1-H MS	Matrix Spike	104	102						
890-2523-A-1-I MSD	Matrix Spike Duplicate	107	104						
890-2524-1	FS01	112	95						
890-2524-2	FS02	109	95						
890-2524-3	FS03	105	95						
890-2524-4	FS04	132 S1+	87						
890-2524-4 MS	FS04	134 S1+	97						
890-2524-4 MSD	FS04	108	88						
890-2524-5	FS05	125	85						
890-2524-6	FS06	139 S1+	92						
890-2524-7	FS07	132 S1+	91						
890-2524-8	FS08	121	81						
890-2524-9	FS09	140 S1+	94						
890-2524-10	FS10	117	85						
890-2524-11	FS11	92	84						
890-2524-12	FS12	124	85						
890-2524-13	FS13	124	80						
890-2524-14	FS14	125	80						
890-2524-15	FS15	89	87						
890-2524-16	FS16	104	91						
890-2524-17	FS17	100	82						
890-2524-18	FS18	107	88						
890-2524-19	FS19	103	85						
890-2524-20	FS20	103	87						
LCS 880-29534/1-A	Lab Control Sample	97	96						
LCS 880-29772/1-A	Lab Control Sample	103	97						
LCS 880-29959/1-A	Lab Control Sample	121	91						
LCSD 880-29534/2-A	Lab Control Sample Dup	100	97						
LCSD 880-29772/2-A	Lab Control Sample Dup	101	96						
LCSD 880-29959/2-A	Lab Control Sample Dup	131 S1+	92						
MB 880-29534/5-A	Method Blank	98	88						
MB 880-29772/5-A	Method Blank	97	89						
MB 880-29886/5-A	Method Blank	79	88						
MB 880-29959/5-A	Method Blank	84	83						
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	OTPH1				
		(70-130)	(70-130)				
880-16749-A-1-C MS	Matrix Spike	85	84				
880-16749-A-1-D MSD	Matrix Spike Duplicate	95	90				
880-16749-A-15-C MS	Matrix Spike	107	103				

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Surrogate Summary

Client: Ensolum

Job ID: 890-2524-1

Project/Site: Corral Canyon 8-32 103H 1162H

SDG: 03E1558058

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

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-16749-A-15-D MSD	Matrix Spike Duplicate	106	100
880-16754-A-3-C MS	Matrix Spike	79	81
880-16754-A-3-D MSD	Matrix Spike Duplicate	83	85
880-16754-A-17-C MS	Matrix Spike	74	64 S1-
880-16754-A-17-D MSD	Matrix Spike Duplicate	78	68 S1-
890-2524-1	FS01	109	116
890-2524-2	FS02	101	101
890-2524-3	FS03	103	108
890-2524-4	FS04	110	113
890-2524-5	FS05	115	116
890-2524-6	FS06	104	106
890-2524-7	FS07	110	114
890-2524-8	FS08	111	112
890-2524-9	FS09	110	113
890-2524-10	FS10	92	102
890-2524-11	FS11	100	113
890-2524-12	FS12	91	95
890-2524-13	FS13	98	103
890-2524-14	FS14	90	95
890-2524-15	FS15	97	104
890-2524-16	FS16	86	93
890-2524-17	FS17	85	93
890-2524-18	FS18	74	74
890-2524-19	FS19	82	87
890-2524-20	FS20	89	97
LCS 880-29505/2-A	Lab Control Sample	107	112
LCS 880-29506/2-A	Lab Control Sample	102	94
LCS 880-29507/2-A	Lab Control Sample	106	120
LCS 880-29508/2-A	Lab Control Sample	99	105
LCSD 880-29505/3-A	Lab Control Sample Dup	112	115
LCSD 880-29506/3-A	Lab Control Sample Dup	101	96
LCSD 880-29507/3-A	Lab Control Sample Dup	96	105
LCSD 880-29508/3-A	Lab Control Sample Dup	100	107
MB 880-29505/1-A	Method Blank	107	120
MB 880-29506/1-A	Method Blank	115	123
MB 880-29507/1-A	Method Blank	117	139 S1+
MB 880-29508/1-A	Method Blank	97	110

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

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QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-29534/5-A

Matrix: Solid

Analysis Batch: 29547

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29534

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/12/22 10:47	07/12/22 14:08	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/12/22 10:47	07/12/22 14:08	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/12/22 10:47	07/12/22 14:08	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/12/22 10:47	07/12/22 14:08	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/12/22 10:47	07/12/22 14:08	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/12/22 10:47	07/12/22 14:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		70 - 130	07/12/22 10:47	07/12/22 14:08	1
1,4-Difluorobenzene (Surr)	88		70 - 130	07/12/22 10:47	07/12/22 14:08	1

Lab Sample ID: LCS 880-29534/1-A

Matrix: Solid

Analysis Batch: 29547

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29534

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09658		mg/Kg		97	70 - 130
Toluene	0.100	0.09541		mg/Kg		95	70 - 130
Ethylbenzene	0.100	0.09716		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	0.200	0.1923		mg/Kg		96	70 - 130
o-Xylene	0.100	0.1095		mg/Kg		110	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

Lab Sample ID: LCSD 880-29534/2-A

Matrix: Solid

Analysis Batch: 29547

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 29534

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1042		mg/Kg		104	70 - 130	8	35
Toluene	0.100	0.1034		mg/Kg		103	70 - 130	8	35
Ethylbenzene	0.100	0.1065		mg/Kg		107	70 - 130	9	35
m-Xylene & p-Xylene	0.200	0.2120		mg/Kg		106	70 - 130	10	35
o-Xylene	0.100	0.1191		mg/Kg		119	70 - 130	8	35

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

Lab Sample ID: 880-16804-A-1-A MS

Matrix: Solid

Analysis Batch: 29547

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 29534

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.101	0.08517		mg/Kg		84	70 - 130
Toluene	<0.00199	U F1	0.101	0.08075		mg/Kg		79	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

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

Lab Sample ID: 880-16804-A-1-A MS

Matrix: Solid

Analysis Batch: 29547

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 29534

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U F1	0.101	0.08049		mg/Kg		78	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.202	0.1614		mg/Kg		78	70 - 130
o-Xylene	<0.00199	U F1	0.101	0.08750		mg/Kg		86	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: 880-16804-A-1-B MSD

Matrix: Solid

Analysis Batch: 29547

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 29534

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.07155		mg/Kg		71	70 - 130	17	35
Toluene	<0.00199	U F1	0.100	0.06601	F1	mg/Kg		65	70 - 130	20	35
Ethylbenzene	<0.00199	U F1	0.100	0.06245	F1	mg/Kg		61	70 - 130	25	35
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1231	F1	mg/Kg		60	70 - 130	27	35
o-Xylene	<0.00199	U F1	0.100	0.06569	F1	mg/Kg		65	70 - 130	28	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: MB 880-29772/5-A

Matrix: Solid

Analysis Batch: 29882

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29772

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		07/14/22 16:34	07/17/22 15:57	1
Toluene	<0.00200	U	0.00200	mg/Kg		07/14/22 16:34	07/17/22 15:57	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		07/14/22 16:34	07/17/22 15:57	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		07/14/22 16:34	07/17/22 15:57	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		07/14/22 16:34	07/17/22 15:57	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		07/14/22 16:34	07/17/22 15:57	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	07/14/22 16:34	07/17/22 15:57	1
1,4-Difluorobenzene (Surr)	89		70 - 130	07/14/22 16:34	07/17/22 15:57	1

Lab Sample ID: LCS 880-29772/1-A

Matrix: Solid

Analysis Batch: 29882

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29772

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08329		mg/Kg		83	70 - 130
Toluene	0.100	0.08183		mg/Kg		82	70 - 130
Ethylbenzene	0.100	0.08420		mg/Kg		84	70 - 130
m-Xylene & p-Xylene	0.200	0.1660		mg/Kg		83	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

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

Lab Sample ID: LCS 880-29772/1-A

Matrix: Solid

Analysis Batch: 29882

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29772

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
o-Xylene	0.100	0.09367		mg/Kg		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: LCSD 880-29772/2-A

Matrix: Solid

Analysis Batch: 29882

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 29772

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.07356		mg/Kg		74	70 - 130	12	35
Toluene	0.100	0.07259		mg/Kg		73	70 - 130	12	35
Ethylbenzene	0.100	0.07458		mg/Kg		75	70 - 130	12	35
m-Xylene & p-Xylene	0.200	0.1473		mg/Kg		74	70 - 130	12	35
o-Xylene	0.100	0.08374		mg/Kg		84	70 - 130	11	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

Lab Sample ID: 890-2523-A-1-H MS

Matrix: Solid

Analysis Batch: 29882

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 29772

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0998	0.08216		mg/Kg		82	70 - 130
Toluene	<0.00199	U F1	0.0998	0.06496	F1	mg/Kg		65	70 - 130
Ethylbenzene	<0.00199	U F2 F1	0.0998	0.05534	F1	mg/Kg		55	70 - 130
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.200	0.1096	F1	mg/Kg		54	70 - 130
o-Xylene	<0.00199	U F2 F1	0.0998	0.06197	F1	mg/Kg		62	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: 890-2523-A-1-I MSD

Matrix: Solid

Analysis Batch: 29882

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 29772

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.100	0.07866		mg/Kg		79	70 - 130	4	35
Toluene	<0.00199	U F1	0.100	0.04971	F1	mg/Kg		50	70 - 130	27	35
Ethylbenzene	<0.00199	U F2 F1	0.100	0.03297	F2 F1	mg/Kg		33	70 - 130	51	35
m-Xylene & p-Xylene	<0.00398	U F2 F1	0.200	0.06571	F2 F1	mg/Kg		32	70 - 130	50	35
o-Xylene	<0.00199	U F2 F1	0.100	0.03825	F2 F1	mg/Kg		38	70 - 130	47	35

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QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

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

Lab Sample ID: 890-2523-A-1-I MSD

Matrix: Solid

Analysis Batch: 29882

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 29772

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: MB 880-29886/5-A

Matrix: Solid

Analysis Batch: 29895

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29886

	MB	MB							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.000400	U	0.000400	mg/Kg		07/17/22 12:29	07/18/22 13:14	1	
Toluene	<0.000400	U	0.000400	mg/Kg		07/17/22 12:29	07/18/22 13:14	1	
Ethylbenzene	<0.000400	U	0.000400	mg/Kg		07/17/22 12:29	07/18/22 13:14	1	
m-Xylene & p-Xylene	<0.000800	U	0.000800	mg/Kg		07/17/22 12:29	07/18/22 13:14	1	
o-Xylene	<0.000400	U	0.000400	mg/Kg		07/17/22 12:29	07/18/22 13:14	1	
Xylenes, Total	<0.000800	U	0.000800	mg/Kg		07/17/22 12:29	07/18/22 13:14	1	
	MB	MB							
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	79		70 - 130			07/17/22 12:29	07/18/22 13:14	1	
1,4-Difluorobenzene (Surr)	88		70 - 130			07/17/22 12:29	07/18/22 13:14	1	

Lab Sample ID: MB 880-29959/5-A

Matrix: Solid

Analysis Batch: 29895

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29959

	MB	MB							
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	<0.000400	U	0.000400	mg/Kg		07/18/22 13:46	07/19/22 02:48	1	
Toluene	<0.000400	U	0.000400	mg/Kg		07/18/22 13:46	07/19/22 02:48	1	
Ethylbenzene	<0.000400	U	0.000400	mg/Kg		07/18/22 13:46	07/19/22 02:48	1	
m-Xylene & p-Xylene	<0.000800	U	0.000800	mg/Kg		07/18/22 13:46	07/19/22 02:48	1	
o-Xylene	<0.000400	U	0.000400	mg/Kg		07/18/22 13:46	07/19/22 02:48	1	
Xylenes, Total	<0.000800	U	0.000800	mg/Kg		07/18/22 13:46	07/19/22 02:48	1	
	MB	MB							
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene (Surr)	84		70 - 130			07/18/22 13:46	07/19/22 02:48	1	
1,4-Difluorobenzene (Surr)	83		70 - 130			07/18/22 13:46	07/19/22 02:48	1	

Lab Sample ID: LCS 880-29959/1-A

Matrix: Solid

Analysis Batch: 29895

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29959

	Spike	LCS	LCS					%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Benzene	0.100	0.09466		mg/Kg		95	70 - 130		
Toluene	0.100	0.09695		mg/Kg		97	70 - 130		
Ethylbenzene	0.100	0.1040		mg/Kg		104	70 - 130		
m-Xylene & p-Xylene	0.200	0.2052		mg/Kg		103	70 - 130		
o-Xylene	0.100	0.1178		mg/Kg		118	70 - 130		

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QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

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

Lab Sample ID: LCS 880-29959/1-A

Matrix: Solid

Analysis Batch: 29895

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29959

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	121		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Lab Sample ID: LCSD 880-29959/2-A

Matrix: Solid

Analysis Batch: 29895

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 29959

	Spike	LCSD	LCSD						%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit		
Benzene	0.100	0.1012		mg/Kg		101	70 - 130	7	35		
Toluene	0.100	0.1005		mg/Kg		100	70 - 130	4	35		
Ethylbenzene	0.100	0.1121		mg/Kg		112	70 - 130	8	35		
m-Xylene & p-Xylene	0.200	0.2207		mg/Kg		110	70 - 130	7	35		
o-Xylene	0.100	0.1188		mg/Kg		119	70 - 130	1	35		

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	131	S1+	70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: 890-2524-4 MS

Matrix: Solid

Analysis Batch: 29895

Client Sample ID: FS04

Prep Type: Total/NA

Prep Batch: 29959

	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.000399	U F1 F2	0.0998	0.1019		mg/Kg		102	70 - 130		
Toluene	<0.000399	U F1 F2	0.0998	0.1027		mg/Kg		103	70 - 130		
Ethylbenzene	<0.000399	U F1 F2	0.0998	0.1080		mg/Kg		108	70 - 130		
m-Xylene & p-Xylene	<0.000798	U F1 F2	0.200	0.2142		mg/Kg		107	70 - 130		
o-Xylene	<0.000399	U F2	0.0998	0.1160		mg/Kg		116	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	134	S1+	70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: 890-2524-4 MSD

Matrix: Solid

Analysis Batch: 29895

Client Sample ID: FS04

Prep Type: Total/NA

Prep Batch: 29959

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	<0.000399	U F1 F2	0.101	0.05629	F1 F2	mg/Kg		56	70 - 130	58	35
Toluene	<0.000399	U F1 F2	0.101	0.05921	F1 F2	mg/Kg		59	70 - 130	54	35
Ethylbenzene	<0.000399	U F1 F2	0.101	0.06878	F1 F2	mg/Kg		68	70 - 130	44	35
m-Xylene & p-Xylene	<0.000798	U F1 F2	0.202	0.1340	F1 F2	mg/Kg		66	70 - 130	46	35
o-Xylene	<0.000399	U F2	0.101	0.07408	F2	mg/Kg		73	70 - 130	44	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	88		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

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

Lab Sample ID: MB 880-29505/1-A

Matrix: Solid

Analysis Batch: 29501

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29505

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		07/12/22 08:34	07/12/22 10:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/12/22 08:34	07/12/22 10:01	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/12/22 08:34	07/12/22 10:01	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130			07/12/22 08:34	07/12/22 10:01	1
o-Terphenyl	120		70 - 130			07/12/22 08:34	07/12/22 10:01	1

Lab Sample ID: LCS 880-29505/2-A

Matrix: Solid

Analysis Batch: 29501

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29505

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	802.8		mg/Kg		80	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1050		mg/Kg		105	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	107		70 - 130				
o-Terphenyl	112		70 - 130				

Lab Sample ID: LCSD 880-29505/3-A

Matrix: Solid

Analysis Batch: 29501

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 29505

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	855.8		mg/Kg		86	70 - 130	6	20
Diesel Range Organics (Over C10-C28)	1000	1065		mg/Kg		107	70 - 130	1	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	112		70 - 130						
o-Terphenyl	115		70 - 130						

Lab Sample ID: 880-16749-A-1-C MS

Matrix: Solid

Analysis Batch: 29501

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 29505

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F2	996	817.4		mg/Kg		82	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	996	778.3		mg/Kg		78	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

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

Lab Sample ID: 880-16749-A-1-C MS

Matrix: Solid

Analysis Batch: 29501

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 29505

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

Lab Sample ID: 880-16749-A-1-D MSD

Matrix: Solid

Analysis Batch: 29501

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 29505

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F2	998	1049	F2	mg/Kg		105	70 - 130	25	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	847.7		mg/Kg		85	70 - 130	9	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	90		70 - 130

Lab Sample ID: MB 880-29506/1-A

Matrix: Solid

Analysis Batch: 29503

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29506

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		07/12/22 08:38	07/12/22 10:01	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/12/22 08:38	07/12/22 10:01	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/12/22 08:38	07/12/22 10:01	1

	MB	MB		Prepared	Analyzed	Dil Fac
Surrogate	%Recovery	Qualifier	Limits			
1-Chlorooctane	115		70 - 130	07/12/22 08:38	07/12/22 10:01	1
o-Terphenyl	123		70 - 130	07/12/22 08:38	07/12/22 10:01	1

Lab Sample ID: LCS 880-29506/2-A

Matrix: Solid

Analysis Batch: 29503

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29506

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1065		mg/Kg		106	70 - 130
Diesel Range Organics (Over C10-C28)	1000	898.6		mg/Kg		90	70 - 130

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	102		70 - 130
o-Terphenyl	94		70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

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

Lab Sample ID: LCSD 880-29506/3-A

Matrix: Solid

Analysis Batch: 29503

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 29506

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1061		mg/Kg		106	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	1000	904.7		mg/Kg		90	70 - 130	1	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	101		70 - 130						
o-Terphenyl	96		70 - 130						

Lab Sample ID: 880-16749-A-15-C MS

Matrix: Solid

Analysis Batch: 29503

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 29506

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	996	1196		mg/Kg		118	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	996	1070		mg/Kg		103	70 - 130		
Surrogate	MS %Recovery	MS Qualifier	Limits								
1-Chlorooctane	107		70 - 130								
o-Terphenyl	103		70 - 130								

Lab Sample ID: 880-16749-A-15-D MSD

Matrix: Solid

Analysis Batch: 29503

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 29506

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	998	1211		mg/Kg		119	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	1043		mg/Kg		100	70 - 130	3	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	106		70 - 130								
o-Terphenyl	100		70 - 130								

Lab Sample ID: MB 880-29507/1-A

Matrix: Solid

Analysis Batch: 29497

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29507

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		07/12/22 08:43	07/12/22 09:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/12/22 08:43	07/12/22 09:49	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/12/22 08:43	07/12/22 09:49	1

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QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

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

Lab Sample ID: MB 880-29507/1-A

Matrix: Solid

Analysis Batch: 29497

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29507

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130	07/12/22 08:43	07/12/22 09:49	1
o-Terphenyl	139	S1+	70 - 130	07/12/22 08:43	07/12/22 09:49	1

Lab Sample ID: LCS 880-29507/2-A

Matrix: Solid

Analysis Batch: 29497

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29507

			Spike	LCS	LCS				%Rec		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1114		mg/Kg		111	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	1015		mg/Kg		101	70 - 130		

	LCS	LCS				
Surrogate	%Recovery	Qualifier	Limits			
1-Chlorooctane	106		70 - 130			
o-Terphenyl	120		70 - 130			

Lab Sample ID: LCSD 880-29507/3-A

Matrix: Solid

Analysis Batch: 29497

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 29507

			Spike	LCSD	LCSD				%Rec		RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10			1000	1028		mg/Kg		103	70 - 130	8	20	
Diesel Range Organics (Over C10-C28)			1000	927.3		mg/Kg		93	70 - 130	9	20	

	LCSD	LCSD				
Surrogate	%Recovery	Qualifier	Limits			
1-Chlorooctane	96		70 - 130			
o-Terphenyl	105		70 - 130			

Lab Sample ID: 880-16754-A-3-C MS

Matrix: Solid

Analysis Batch: 29497

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 29507

	Sample	Sample	Spike	MS	MS				%Rec		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F2	996	1092		mg/Kg		110	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U F1	996	704.2	F1	mg/Kg		69	70 - 130		

	MS	MS				
Surrogate	%Recovery	Qualifier	Limits			
1-Chlorooctane	79		70 - 130			
o-Terphenyl	81		70 - 130			

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QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

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

Lab Sample ID: 880-16754-A-3-D MSD

Matrix: Solid

Analysis Batch: 29497

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 29507

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U F2	998	813.6	F2	mg/Kg		82	70 - 130	29	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	998	745.9		mg/Kg		73	70 - 130	6	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	83		70 - 130								
o-Terphenyl	85		70 - 130								

Lab Sample ID: MB 880-29508/1-A

Matrix: Solid

Analysis Batch: 29499

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 29508

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		07/12/22 08:46	07/12/22 09:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/12/22 08:46	07/12/22 09:49	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		07/12/22 08:46	07/12/22 09:49	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac
1-Chlorooctane	97		70 - 130			07/12/22 08:46	07/12/22 09:49	1
o-Terphenyl	110		70 - 130			07/12/22 08:46	07/12/22 09:49	1

Lab Sample ID: LCS 880-29508/2-A

Matrix: Solid

Analysis Batch: 29499

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 29508

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10	1000	847.5		mg/Kg		85	70 - 130		
Diesel Range Organics (Over C10-C28)	1000	859.1		mg/Kg		86	70 - 130		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
1-Chlorooctane	99		70 - 130						
o-Terphenyl	105		70 - 130						

Lab Sample ID: LCSD 880-29508/3-A

Matrix: Solid

Analysis Batch: 29499

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 29508

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	812.7		mg/Kg		81	70 - 130	4	20
Diesel Range Organics (Over C10-C28)	1000	843.7		mg/Kg		84	70 - 130	2	20

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QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

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

Lab Sample ID: LCSD 880-29508/3-A

Matrix: Solid

Analysis Batch: 29499

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 29508

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	100		70 - 130
o-Terphenyl	107		70 - 130

Lab Sample ID: 880-16754-A-17-C MS

Matrix: Solid

Analysis Batch: 29499

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 29508

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	996	988.5		mg/Kg		97	70 - 130	
Diesel Range Organics (Over C10-C28)	<49.9	U F1	996	691.2	F1	mg/Kg		67	70 - 130	
	MS	MS								
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	74		70 - 130							
o-Terphenyl	64	S1-	70 - 130							

Lab Sample ID: 880-16754-A-17-D MSD

Matrix: Solid

Analysis Batch: 29499

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 29508

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	893.2		mg/Kg		88	70 - 130	10	20	
Diesel Range Organics (Over C10-C28)	<49.9	U F1	998	744.1		mg/Kg		72	70 - 130	7	20	
	MSD	MSD										
Surrogate	%Recovery	Qualifier	Limits									
1-Chlorooctane	78		70 - 130									
o-Terphenyl	68	S1-	70 - 130									

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-29460/1-A

Matrix: Solid

Analysis Batch: 29554

Client Sample ID: Method Blank

Prep Type: Soluble

	MB	MB								
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac		
Chloride	<5.00	U	5.00	mg/Kg			07/12/22 16:54	1		

Lab Sample ID: LCS 880-29460/2-A

Matrix: Solid

Analysis Batch: 29554

Client Sample ID: Lab Control Sample

Prep Type: Soluble

	Spike	LCS	LCS					%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits		
Chloride	250	254.4		mg/Kg		102	90 - 110		

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QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCSD 880-29460/3-A

Matrix: Solid

Analysis Batch: 29554

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	254.5		mg/Kg		102	90 - 110	0	20

Lab Sample ID: 880-16794-A-1-C MS

Matrix: Solid

Analysis Batch: 29554

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	4020	F1	2510	6237	F1	mg/Kg		89	90 - 110		

Lab Sample ID: 880-16794-A-1-D MSD

Matrix: Solid

Analysis Batch: 29554

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	4020	F1	2510	6242	F1	mg/Kg		89	90 - 110	0	20

Lab Sample ID: MB 880-29581/1-A

Matrix: Solid

Analysis Batch: 29582

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			07/12/22 17:30	1

Lab Sample ID: LCS 880-29581/2-A

Matrix: Solid

Analysis Batch: 29582

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	235.4		mg/Kg		94	90 - 110		

Lab Sample ID: LCSD 880-29581/3-A

Matrix: Solid

Analysis Batch: 29582

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	237.4		mg/Kg		95	90 - 110	1	20

Lab Sample ID: 890-2525-A-1-I MS

Matrix: Solid

Analysis Batch: 29582

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	80.0		1250	1264		mg/Kg		95	90 - 110		

Lab Sample ID: 890-2525-A-1-J MSD

Matrix: Solid

Analysis Batch: 29582

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	80.0		1250	1275		mg/Kg		95	90 - 110	1	20

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QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-29461/1-A

Matrix: Solid

Analysis Batch: 29656

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00	mg/Kg			07/15/22 23:18	1

Lab Sample ID: LCS 880-29461/2-A

Matrix: Solid

Analysis Batch: 29656

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	272.4		mg/Kg		109	90 - 110

Lab Sample ID: LCSD 880-29461/3-A

Matrix: Solid

Analysis Batch: 29656

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	273.4		mg/Kg		109	90 - 110	0	20

Lab Sample ID: 890-2524-7 MS

Matrix: Solid

Analysis Batch: 29656

Client Sample ID: FS07

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	1880	F1	1250	3373	F1	mg/Kg		120	90 - 110

Lab Sample ID: 890-2524-7 MSD

Matrix: Solid

Analysis Batch: 29656

Client Sample ID: FS07

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	1880	F1	1250	3366	F1	mg/Kg		119	90 - 110	0	20

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QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

GC VOA

Prep Batch: 29534

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2524-11	FS11	Total/NA	Solid	5035	
890-2524-15	FS15	Total/NA	Solid	5035	
890-2524-16	FS16	Total/NA	Solid	5035	
890-2524-17	FS17	Total/NA	Solid	5035	
890-2524-18	FS18	Total/NA	Solid	5035	
890-2524-19	FS19	Total/NA	Solid	5035	
890-2524-20	FS20	Total/NA	Solid	5035	
MB 880-29534/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-29534/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-29534/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-16804-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-16804-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 29547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2524-11	FS11	Total/NA	Solid	8021B	29534
890-2524-15	FS15	Total/NA	Solid	8021B	29534
890-2524-16	FS16	Total/NA	Solid	8021B	29534
890-2524-17	FS17	Total/NA	Solid	8021B	29534
890-2524-18	FS18	Total/NA	Solid	8021B	29534
890-2524-19	FS19	Total/NA	Solid	8021B	29534
890-2524-20	FS20	Total/NA	Solid	8021B	29534
MB 880-29534/5-A	Method Blank	Total/NA	Solid	8021B	29534
MB 880-29534/5-A	Method Blank	Total/NA	Solid	Total BTEX	29534
LCS 880-29534/1-A	Lab Control Sample	Total/NA	Solid	8021B	29534
LCS 880-29534/1-A	Lab Control Sample	Total/NA	Solid	Total BTEX	29534
LCSD 880-29534/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	29534
LCSD 880-29534/2-A	Lab Control Sample Dup	Total/NA	Solid	Total BTEX	29534
880-16804-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	29534
880-16804-A-1-A MS	Matrix Spike	Total/NA	Solid	Total BTEX	29534
880-16804-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	29534
880-16804-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	Total BTEX	29534

Analysis Batch: 29568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2524-11	FS11	Total/NA	Solid	Total BTEX	
890-2524-15	FS15	Total/NA	Solid	Total BTEX	
890-2524-16	FS16	Total/NA	Solid	Total BTEX	
890-2524-17	FS17	Total/NA	Solid	Total BTEX	
890-2524-18	FS18	Total/NA	Solid	Total BTEX	
890-2524-19	FS19	Total/NA	Solid	Total BTEX	
890-2524-20	FS20	Total/NA	Solid	Total BTEX	

Prep Batch: 29772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2524-1	FS01	Total/NA	Solid	5035	
890-2524-2	FS02	Total/NA	Solid	5035	
890-2524-3	FS03	Total/NA	Solid	5035	
MB 880-29772/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-29772/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-29772/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

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QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

GC VOA (Continued)

Prep Batch: 29772 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2523-A-1-H MS	Matrix Spike	Total/NA	Solid	5035	
890-2523-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 29882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2524-1	FS01	Total/NA	Solid	8021B	29772
890-2524-2	FS02	Total/NA	Solid	8021B	29772
890-2524-3	FS03	Total/NA	Solid	8021B	29772
MB 880-29772/5-A	Method Blank	Total/NA	Solid	8021B	29772
LCS 880-29772/1-A	Lab Control Sample	Total/NA	Solid	8021B	29772
LCSD 880-29772/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	29772
890-2523-A-1-H MS	Matrix Spike	Total/NA	Solid	8021B	29772
890-2523-A-1-I MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	29772

Prep Batch: 29886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-29886/5-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 29895

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2524-4	FS04	Total/NA	Solid	8021B	29959
890-2524-5	FS05	Total/NA	Solid	8021B	29959
890-2524-6	FS06	Total/NA	Solid	8021B	29959
890-2524-7	FS07	Total/NA	Solid	8021B	29959
890-2524-8	FS08	Total/NA	Solid	8021B	29959
890-2524-9	FS09	Total/NA	Solid	8021B	29959
890-2524-10	FS10	Total/NA	Solid	8021B	29959
890-2524-12	FS12	Total/NA	Solid	8021B	29959
890-2524-13	FS13	Total/NA	Solid	8021B	29959
890-2524-14	FS14	Total/NA	Solid	8021B	29959
MB 880-29886/5-A	Method Blank	Total/NA	Solid	8021B	29886
MB 880-29959/5-A	Method Blank	Total/NA	Solid	8021B	29959
LCS 880-29959/1-A	Lab Control Sample	Total/NA	Solid	8021B	29959
LCSD 880-29959/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	29959
890-2524-4 MS	FS04	Total/NA	Solid	8021B	29959
890-2524-4 MSD	FS04	Total/NA	Solid	8021B	29959

Prep Batch: 29959

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2524-4	FS04	Total/NA	Solid	5035	
890-2524-5	FS05	Total/NA	Solid	5035	
890-2524-6	FS06	Total/NA	Solid	5035	
890-2524-7	FS07	Total/NA	Solid	5035	
890-2524-8	FS08	Total/NA	Solid	5035	
890-2524-9	FS09	Total/NA	Solid	5035	
890-2524-10	FS10	Total/NA	Solid	5035	
890-2524-12	FS12	Total/NA	Solid	5035	
890-2524-13	FS13	Total/NA	Solid	5035	
890-2524-14	FS14	Total/NA	Solid	5035	
MB 880-29959/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-29959/1-A	Lab Control Sample	Total/NA	Solid	5035	

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QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

GC VOA (Continued)

Prep Batch: 29959 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-29959/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2524-4 MS	FS04	Total/NA	Solid	5035	
890-2524-4 MSD	FS04	Total/NA	Solid	5035	

Analysis Batch: 29991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2524-1	FS01	Total/NA	Solid	Total BTEX	
890-2524-2	FS02	Total/NA	Solid	Total BTEX	
890-2524-3	FS03	Total/NA	Solid	Total BTEX	
890-2524-4	FS04	Total/NA	Solid	Total BTEX	
890-2524-5	FS05	Total/NA	Solid	Total BTEX	
890-2524-6	FS06	Total/NA	Solid	Total BTEX	
890-2524-7	FS07	Total/NA	Solid	Total BTEX	
890-2524-8	FS08	Total/NA	Solid	Total BTEX	
890-2524-9	FS09	Total/NA	Solid	Total BTEX	
890-2524-10	FS10	Total/NA	Solid	Total BTEX	
890-2524-12	FS12	Total/NA	Solid	Total BTEX	
890-2524-13	FS13	Total/NA	Solid	Total BTEX	
890-2524-14	FS14	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 29497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2524-10	FS10	Total/NA	Solid	8015B NM	29507
890-2524-11	FS11	Total/NA	Solid	8015B NM	29507
890-2524-12	FS12	Total/NA	Solid	8015B NM	29507
890-2524-13	FS13	Total/NA	Solid	8015B NM	29507
890-2524-14	FS14	Total/NA	Solid	8015B NM	29507
890-2524-15	FS15	Total/NA	Solid	8015B NM	29507
MB 880-29507/1-A	Method Blank	Total/NA	Solid	8015B NM	29507
LCS 880-29507/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	29507
LCSD 880-29507/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	29507
880-16754-A-3-C MS	Matrix Spike	Total/NA	Solid	8015B NM	29507
880-16754-A-3-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	29507

Analysis Batch: 29499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2524-16	FS16	Total/NA	Solid	8015B NM	29508
890-2524-17	FS17	Total/NA	Solid	8015B NM	29508
890-2524-18	FS18	Total/NA	Solid	8015B NM	29508
890-2524-19	FS19	Total/NA	Solid	8015B NM	29508
890-2524-20	FS20	Total/NA	Solid	8015B NM	29508
MB 880-29508/1-A	Method Blank	Total/NA	Solid	8015B NM	29508
LCS 880-29508/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	29508
LCSD 880-29508/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	29508
880-16754-A-17-C MS	Matrix Spike	Total/NA	Solid	8015B NM	29508
880-16754-A-17-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	29508

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QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

GC Semi VOA

Analysis Batch: 29501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2524-1	FS01	Total/NA	Solid	8015B NM	29505
890-2524-2	FS02	Total/NA	Solid	8015B NM	29505
MB 880-29505/1-A	Method Blank	Total/NA	Solid	8015B NM	29505
LCS 880-29505/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	29505
LCSD 880-29505/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	29505
880-16749-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	29505
880-16749-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	29505

Analysis Batch: 29503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2524-3	FS03	Total/NA	Solid	8015B NM	29506
890-2524-4	FS04	Total/NA	Solid	8015B NM	29506
890-2524-5	FS05	Total/NA	Solid	8015B NM	29506
890-2524-6	FS06	Total/NA	Solid	8015B NM	29506
890-2524-7	FS07	Total/NA	Solid	8015B NM	29506
890-2524-8	FS08	Total/NA	Solid	8015B NM	29506
890-2524-9	FS09	Total/NA	Solid	8015B NM	29506
MB 880-29506/1-A	Method Blank	Total/NA	Solid	8015B NM	29506
LCS 880-29506/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	29506
LCSD 880-29506/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	29506
880-16749-A-15-C MS	Matrix Spike	Total/NA	Solid	8015B NM	29506
880-16749-A-15-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	29506

Prep Batch: 29505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2524-1	FS01	Total/NA	Solid	8015NM Prep	
890-2524-2	FS02	Total/NA	Solid	8015NM Prep	
MB 880-29505/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-29505/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-29505/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-16749-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-16749-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 29506

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2524-3	FS03	Total/NA	Solid	8015NM Prep	
890-2524-4	FS04	Total/NA	Solid	8015NM Prep	
890-2524-5	FS05	Total/NA	Solid	8015NM Prep	
890-2524-6	FS06	Total/NA	Solid	8015NM Prep	
890-2524-7	FS07	Total/NA	Solid	8015NM Prep	
890-2524-8	FS08	Total/NA	Solid	8015NM Prep	
890-2524-9	FS09	Total/NA	Solid	8015NM Prep	
MB 880-29506/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-29506/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-29506/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-16749-A-15-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-16749-A-15-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 29507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2524-10	FS10	Total/NA	Solid	8015NM Prep	

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QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

GC Semi VOA (Continued)

Prep Batch: 29507 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2524-11	FS11	Total/NA	Solid	8015NM Prep	
890-2524-12	FS12	Total/NA	Solid	8015NM Prep	
890-2524-13	FS13	Total/NA	Solid	8015NM Prep	
890-2524-14	FS14	Total/NA	Solid	8015NM Prep	
890-2524-15	FS15	Total/NA	Solid	8015NM Prep	
MB 880-29507/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-29507/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-29507/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-16754-A-3-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-16754-A-3-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Prep Batch: 29508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2524-16	FS16	Total/NA	Solid	8015NM Prep	
890-2524-17	FS17	Total/NA	Solid	8015NM Prep	
890-2524-18	FS18	Total/NA	Solid	8015NM Prep	
890-2524-19	FS19	Total/NA	Solid	8015NM Prep	
890-2524-20	FS20	Total/NA	Solid	8015NM Prep	
MB 880-29508/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-29508/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-29508/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-16754-A-17-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-16754-A-17-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 29577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2524-11	FS11	Total/NA	Solid	8015 NM	
890-2524-15	FS15	Total/NA	Solid	8015 NM	
890-2524-16	FS16	Total/NA	Solid	8015 NM	
890-2524-17	FS17	Total/NA	Solid	8015 NM	
890-2524-18	FS18	Total/NA	Solid	8015 NM	
890-2524-19	FS19	Total/NA	Solid	8015 NM	
890-2524-20	FS20	Total/NA	Solid	8015 NM	

Analysis Batch: 29578

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2524-1	FS01	Total/NA	Solid	8015 NM	
890-2524-2	FS02	Total/NA	Solid	8015 NM	
890-2524-3	FS03	Total/NA	Solid	8015 NM	
890-2524-4	FS04	Total/NA	Solid	8015 NM	
890-2524-5	FS05	Total/NA	Solid	8015 NM	
890-2524-6	FS06	Total/NA	Solid	8015 NM	
890-2524-7	FS07	Total/NA	Solid	8015 NM	
890-2524-8	FS08	Total/NA	Solid	8015 NM	
890-2524-9	FS09	Total/NA	Solid	8015 NM	
890-2524-10	FS10	Total/NA	Solid	8015 NM	
890-2524-12	FS12	Total/NA	Solid	8015 NM	
890-2524-13	FS13	Total/NA	Solid	8015 NM	
890-2524-14	FS14	Total/NA	Solid	8015 NM	

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QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

HPLC/IC

Leach Batch: 29460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2524-11	FS11	Soluble	Solid	DI Leach	
890-2524-15	FS15	Soluble	Solid	DI Leach	
MB 880-29460/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-29460/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-29460/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
880-16794-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
880-16794-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Leach Batch: 29461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2524-1	FS01	Soluble	Solid	DI Leach	
890-2524-2	FS02	Soluble	Solid	DI Leach	
890-2524-3	FS03	Soluble	Solid	DI Leach	
890-2524-4	FS04	Soluble	Solid	DI Leach	
890-2524-5	FS05	Soluble	Solid	DI Leach	
890-2524-6	FS06	Soluble	Solid	DI Leach	
890-2524-7	FS07	Soluble	Solid	DI Leach	
890-2524-8	FS08	Soluble	Solid	DI Leach	
890-2524-9	FS09	Soluble	Solid	DI Leach	
890-2524-10	FS10	Soluble	Solid	DI Leach	
890-2524-12	FS12	Soluble	Solid	DI Leach	
890-2524-13	FS13	Soluble	Solid	DI Leach	
890-2524-14	FS14	Soluble	Solid	DI Leach	
MB 880-29461/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-29461/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-29461/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2524-7 MS	FS07	Soluble	Solid	DI Leach	
890-2524-7 MSD	FS07	Soluble	Solid	DI Leach	

Analysis Batch: 29554

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2524-11	FS11	Soluble	Solid	300.0	29460
890-2524-15	FS15	Soluble	Solid	300.0	29460
MB 880-29460/1-A	Method Blank	Soluble	Solid	300.0	29460
LCS 880-29460/2-A	Lab Control Sample	Soluble	Solid	300.0	29460
LCSD 880-29460/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	29460
880-16794-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	29460
880-16794-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	29460

Leach Batch: 29581

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2524-16	FS16	Soluble	Solid	DI Leach	
890-2524-17	FS17	Soluble	Solid	DI Leach	
890-2524-18	FS18	Soluble	Solid	DI Leach	
890-2524-19	FS19	Soluble	Solid	DI Leach	
890-2524-20	FS20	Soluble	Solid	DI Leach	
MB 880-29581/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-29581/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-29581/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2525-A-1-I MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2525-A-1-J MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

HPLC/IC

Analysis Batch: 29582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2524-16	FS16	Soluble	Solid	300.0	29581
890-2524-17	FS17	Soluble	Solid	300.0	29581
890-2524-18	FS18	Soluble	Solid	300.0	29581
890-2524-19	FS19	Soluble	Solid	300.0	29581
890-2524-20	FS20	Soluble	Solid	300.0	29581
MB 880-29581/1-A	Method Blank	Soluble	Solid	300.0	29581
LCS 880-29581/2-A	Lab Control Sample	Soluble	Solid	300.0	29581
LCSD 880-29581/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	29581
890-2525-A-1-I MS	Matrix Spike	Soluble	Solid	300.0	29581
890-2525-A-1-J MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	29581

Analysis Batch: 29656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2524-1	FS01	Soluble	Solid	300.0	29461
890-2524-2	FS02	Soluble	Solid	300.0	29461
890-2524-3	FS03	Soluble	Solid	300.0	29461
890-2524-4	FS04	Soluble	Solid	300.0	29461
890-2524-5	FS05	Soluble	Solid	300.0	29461
890-2524-6	FS06	Soluble	Solid	300.0	29461
890-2524-7	FS07	Soluble	Solid	300.0	29461
890-2524-8	FS08	Soluble	Solid	300.0	29461
890-2524-9	FS09	Soluble	Solid	300.0	29461
890-2524-10	FS10	Soluble	Solid	300.0	29461
890-2524-12	FS12	Soluble	Solid	300.0	29461
890-2524-13	FS13	Soluble	Solid	300.0	29461
890-2524-14	FS14	Soluble	Solid	300.0	29461
MB 880-29461/1-A	Method Blank	Soluble	Solid	300.0	29461
LCS 880-29461/2-A	Lab Control Sample	Soluble	Solid	300.0	29461
LCSD 880-29461/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	29461
890-2524-7 MS	FS07	Soluble	Solid	300.0	29461
890-2524-7 MSD	FS07	Soluble	Solid	300.0	29461

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Client Sample ID: FS01

Lab Sample ID: 890-2524-1

Date Collected: 07/09/22 13:55

Matrix: Solid

Date Received: 07/11/22 08:42

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	29772	07/14/22 16:34	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29882	07/17/22 17:41	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29991	07/18/22 15:39	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29578	07/12/22 16:24	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	29505	07/12/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29501	07/12/22 18:55	SM	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	29461	07/12/22 16:14	SMC	XEN MID
Soluble	Analysis	300.0		5			29656	07/16/22 00:41	CH	XEN MID

Client Sample ID: FS02

Lab Sample ID: 890-2524-2

Date Collected: 07/09/22 14:00

Matrix: Solid

Date Received: 07/11/22 08:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	29772	07/14/22 16:34	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29882	07/17/22 18:01	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29991	07/18/22 15:39	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29578	07/12/22 16:24	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	29505	07/12/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29501	07/12/22 19:16	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	29461	07/12/22 16:14	SMC	XEN MID
Soluble	Analysis	300.0		5			29656	07/17/22 14:48	CH	XEN MID

Client Sample ID: FS03

Lab Sample ID: 890-2524-3

Date Collected: 07/09/22 14:05

Matrix: Solid

Date Received: 07/11/22 08:42

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	29772	07/14/22 16:34	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29882	07/17/22 18:22	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29991	07/18/22 15:39	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29578	07/12/22 16:24	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29506	07/12/22 08:38	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29503	07/12/22 17:09	SM	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	29461	07/12/22 16:14	SMC	XEN MID
Soluble	Analysis	300.0		5			29656	07/16/22 01:12	CH	XEN MID

Client Sample ID: FS04

Lab Sample ID: 890-2524-4

Date Collected: 07/09/22 14:10

Matrix: Solid

Date Received: 07/11/22 08:42

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	29959	07/18/22 13:46	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	1.0 mL	29895	07/19/22 03:13	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29991	07/18/22 15:39	SM	XEN MID

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Lab Chronicle

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Client Sample ID: FS04

Lab Sample ID: 890-2524-4

Date Collected: 07/09/22 14:10

Matrix: Solid

Date Received: 07/11/22 08:42

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			29578	07/12/22 16:24	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	29506	07/12/22 08:38	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29503	07/12/22 17:31	SM	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	29461	07/12/22 16:14	SMC	XEN MID
Soluble	Analysis	300.0		5			29656	07/16/22 01:22	CH	XEN MID

Client Sample ID: FS05

Lab Sample ID: 890-2524-5

Date Collected: 07/09/22 14:15

Matrix: Solid

Date Received: 07/11/22 08:42

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	29959	07/18/22 13:46	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	1.0 mL	29895	07/19/22 03:39	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29991	07/18/22 15:39	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29578	07/12/22 16:24	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	29506	07/12/22 08:38	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29503	07/12/22 17:51	SM	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	29461	07/12/22 16:14	SMC	XEN MID
Soluble	Analysis	300.0		5			29656	07/16/22 01:31	CH	XEN MID

Client Sample ID: FS06

Lab Sample ID: 890-2524-6

Date Collected: 07/09/22 14:20

Matrix: Solid

Date Received: 07/11/22 08:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	29959	07/18/22 13:46	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	1.0 mL	29895	07/19/22 04:04	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29991	07/18/22 15:39	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29578	07/12/22 16:24	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	29506	07/12/22 08:38	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29503	07/12/22 18:12	SM	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	29461	07/12/22 16:14	SMC	XEN MID
Soluble	Analysis	300.0		5			29656	07/16/22 01:40	CH	XEN MID

Client Sample ID: FS07

Lab Sample ID: 890-2524-7

Date Collected: 07/09/22 14:35

Matrix: Solid

Date Received: 07/11/22 08:42

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	29959	07/18/22 13:46	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	1.0 mL	29895	07/19/22 04:30	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29991	07/18/22 15:39	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29578	07/12/22 16:24	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	29506	07/12/22 08:38	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29503	07/12/22 18:34	SM	XEN MID

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Lab Chronicle

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Client Sample ID: FS07

Lab Sample ID: 890-2524-7

Date Collected: 07/09/22 14:35

Matrix: Solid

Date Received: 07/11/22 08:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	29461	07/12/22 16:14	SMC	XEN MID
Soluble	Analysis	300.0		5			29656	07/16/22 01:49	CH	XEN MID

Client Sample ID: FS08

Lab Sample ID: 890-2524-8

Date Collected: 07/09/22 14:40

Matrix: Solid

Date Received: 07/11/22 08:42

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	29959	07/18/22 13:46	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	1.0 mL	29895	07/19/22 04:55	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29991	07/18/22 15:39	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29578	07/12/22 16:24	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29506	07/12/22 08:38	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29503	07/12/22 18:55	SM	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	29461	07/12/22 12:10	SMC	XEN MID
Soluble	Analysis	300.0		5			29656	07/16/22 02:17	CH	XEN MID

Client Sample ID: FS09

Lab Sample ID: 890-2524-9

Date Collected: 07/09/22 15:06

Matrix: Solid

Date Received: 07/11/22 08:42

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	29959	07/18/22 13:46	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	1.0 mL	29895	07/19/22 05:21	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29991	07/18/22 15:39	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29578	07/12/22 16:24	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	29506	07/12/22 08:38	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29503	07/12/22 19:16	SM	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	29461	07/12/22 12:10	SMC	XEN MID
Soluble	Analysis	300.0		1			29656	07/16/22 02:26	CH	XEN MID

Client Sample ID: FS10

Lab Sample ID: 890-2524-10

Date Collected: 07/09/22 15:10

Matrix: Solid

Date Received: 07/11/22 08:42

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	29959	07/18/22 13:46	MR	XEN MID
Total/NA	Analysis	8021B		1			29895	07/19/22 05:46	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29991	07/18/22 15:39	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29578	07/12/22 16:24	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29507	07/12/22 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29497	07/12/22 13:04	SM	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	29461	07/12/22 12:10	SMC	XEN MID
Soluble	Analysis	300.0		1			29656	07/16/22 02:54	CH	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Client Sample ID: FS11

Lab Sample ID: 890-2524-11

Date Collected: 07/08/22 11:00

Matrix: Solid

Date Received: 07/11/22 08:42

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	29534	07/12/22 10:47	EL	XEN MID
Total/NA	Analysis	8021B		1	5 g	5 mL	29547	07/12/22 15:11	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29568	07/12/22 15:39	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29577	07/12/22 16:24	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	29507	07/12/22 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29497	07/12/22 12:20	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	29460	07/12/22 12:05	SMC	XEN MID
Soluble	Analysis	300.0		5			29554	07/12/22 19:46	CH	XEN MID

Client Sample ID: FS12

Lab Sample ID: 890-2524-12

Date Collected: 07/09/22 15:20

Matrix: Solid

Date Received: 07/11/22 08:42

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	29959	07/18/22 13:46	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	1.0 mL	29895	07/19/22 06:12	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29991	07/18/22 15:39	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29578	07/12/22 16:24	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29507	07/12/22 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29497	07/12/22 13:25	SM	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	29461	07/12/22 12:10	SMC	XEN MID
Soluble	Analysis	300.0		1			29656	07/16/22 03:03	CH	XEN MID

Client Sample ID: FS13

Lab Sample ID: 890-2524-13

Date Collected: 07/09/22 15:30

Matrix: Solid

Date Received: 07/11/22 08:42

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	29959	07/18/22 13:46	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	1.0 mL	29895	07/19/22 06:38	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29991	07/18/22 15:39	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29578	07/12/22 16:24	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	29507	07/12/22 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29497	07/12/22 13:47	SM	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	29461	07/12/22 12:10	SMC	XEN MID
Soluble	Analysis	300.0		5			29656	07/16/22 03:12	CH	XEN MID

Client Sample ID: FS14

Lab Sample ID: 890-2524-14

Date Collected: 07/09/22 15:35

Matrix: Solid

Date Received: 07/11/22 08:42

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	29959	07/18/22 13:46	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	1.0 mL	29895	07/19/22 07:04	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29991	07/18/22 15:39	SM	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Client Sample ID: FS14

Lab Sample ID: 890-2524-14

Date Collected: 07/09/22 15:35

Matrix: Solid

Date Received: 07/11/22 08:42

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			29578	07/12/22 16:24	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	29507	07/12/22 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29497	07/12/22 14:09	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	29461	07/12/22 12:10	SMC	XEN MID
Soluble	Analysis	300.0		5			29656	07/16/22 03:22	CH	XEN MID

Client Sample ID: FS15

Lab Sample ID: 890-2524-15

Date Collected: 07/08/22 11:15

Matrix: Solid

Date Received: 07/11/22 08:42

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	29534	07/12/22 10:47	EL	XEN MID
Total/NA	Analysis	8021B		1	5 g	5 mL	29547	07/12/22 15:32	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29568	07/12/22 15:39	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29577	07/12/22 16:24	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29507	07/12/22 08:43	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29497	07/12/22 12:42	SM	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	29460	07/12/22 12:05	SMC	XEN MID
Soluble	Analysis	300.0		5			29554	07/12/22 19:56	CH	XEN MID

Client Sample ID: FS16

Lab Sample ID: 890-2524-16

Date Collected: 07/08/22 11:20

Matrix: Solid

Date Received: 07/11/22 08:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	29534	07/12/22 10:47	EL	XEN MID
Total/NA	Analysis	8021B		1	5 g	5 mL	29547	07/12/22 15:52	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29568	07/12/22 15:39	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29577	07/12/22 16:24	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	29508	07/12/22 08:46	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29499	07/12/22 12:20	SM	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	29581	07/12/22 12:03	SMC	XEN MID
Soluble	Analysis	300.0		5			29582	07/12/22 18:17	CH	XEN MID

Client Sample ID: FS17

Lab Sample ID: 890-2524-17

Date Collected: 07/08/22 11:25

Matrix: Solid

Date Received: 07/11/22 08:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	29534	07/12/22 10:47	EL	XEN MID
Total/NA	Analysis	8021B		1	5 g	5 mL	29547	07/12/22 16:13	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29568	07/12/22 15:39	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29577	07/12/22 16:24	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29508	07/12/22 08:46	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29499	07/12/22 12:42	SM	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Client Sample ID: FS17

Lab Sample ID: 890-2524-17

Date Collected: 07/08/22 11:25

Matrix: Solid

Date Received: 07/11/22 08:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.95 g	50 mL	29581	07/12/22 12:03	SMC	XEN MID
Soluble	Analysis	300.0		5			29582	07/12/22 18:25	CH	XEN MID

Client Sample ID: FS18

Lab Sample ID: 890-2524-18

Date Collected: 07/08/22 14:50

Matrix: Solid

Date Received: 07/11/22 08:42

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	29534	07/12/22 10:47	EL	XEN MID
Total/NA	Analysis	8021B		1	5 g	5 mL	29547	07/12/22 16:33	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29568	07/12/22 15:39	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29577	07/12/22 16:24	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29508	07/12/22 08:46	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29499	07/12/22 13:04	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	29581	07/12/22 12:03	SMC	XEN MID
Soluble	Analysis	300.0		1			29582	07/12/22 18:33	CH	XEN MID

Client Sample ID: FS19

Lab Sample ID: 890-2524-19

Date Collected: 07/08/22 13:45

Matrix: Solid

Date Received: 07/11/22 08:42

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	29534	07/12/22 10:47	EL	XEN MID
Total/NA	Analysis	8021B		1	5 g	5 mL	29547	07/12/22 16:54	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29568	07/12/22 15:39	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29577	07/12/22 16:24	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	29508	07/12/22 08:46	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29499	07/12/22 13:25	SM	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	29581	07/12/22 12:03	SMC	XEN MID
Soluble	Analysis	300.0		5			29582	07/12/22 18:41	CH	XEN MID

Client Sample ID: FS20

Lab Sample ID: 890-2524-20

Date Collected: 07/08/22 14:44

Matrix: Solid

Date Received: 07/11/22 08:42

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	29534	07/12/22 10:47	EL	XEN MID
Total/NA	Analysis	8021B		1	5 g	5 mL	29547	07/12/22 17:14	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29568	07/12/22 15:39	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29577	07/12/22 16:24	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29508	07/12/22 08:46	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29499	07/12/22 13:47	SM	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	29581	07/12/22 12:03	SMC	XEN MID
Soluble	Analysis	300.0		1			29582	07/12/22 19:04	CH	XEN MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

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

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Accreditation/Certification Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

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	T104704400-22-24	06-30-23

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

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

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

Method Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 103H 1162H

Job ID: 890-2524-1
SDG: 03E1558058

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2524-1	FS01	Solid	07/09/22 13:55	07/11/22 08:42	1
890-2524-2	FS02	Solid	07/09/22 14:00	07/11/22 08:42	1
890-2524-3	FS03	Solid	07/09/22 14:05	07/11/22 08:42	1
890-2524-4	FS04	Solid	07/09/22 14:10	07/11/22 08:42	1
890-2524-5	FS05	Solid	07/09/22 14:15	07/11/22 08:42	1
890-2524-6	FS06	Solid	07/09/22 14:20	07/11/22 08:42	1
890-2524-7	FS07	Solid	07/09/22 14:35	07/11/22 08:42	1
890-2524-8	FS08	Solid	07/09/22 14:40	07/11/22 08:42	1
890-2524-9	FS09	Solid	07/09/22 15:06	07/11/22 08:42	1
890-2524-10	FS10	Solid	07/09/22 15:10	07/11/22 08:42	1
890-2524-11	FS11	Solid	07/08/22 11:00	07/11/22 08:42	1
890-2524-12	FS12	Solid	07/09/22 15:20	07/11/22 08:42	1
890-2524-13	FS13	Solid	07/09/22 15:30	07/11/22 08:42	1
890-2524-14	FS14	Solid	07/09/22 15:35	07/11/22 08:42	1
890-2524-15	FS15	Solid	07/08/22 11:15	07/11/22 08:42	1
890-2524-16	FS16	Solid	07/08/22 11:20	07/11/22 08:42	1
890-2524-17	FS17	Solid	07/08/22 11:25	07/11/22 08:42	1.5
890-2524-18	FS18	Solid	07/08/22 14:50	07/11/22 08:42	1.5
890-2524-19	FS19	Solid	07/08/22 13:45	07/11/22 08:42	1
890-2524-20	FS20	Solid	07/08/22 14:44	07/11/22 08:42	1



Environment Testing

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

Chain of Custody

Work Order No:

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Page

1 of 2

Project Manager:	Tacoma Manager	Bill to: (if different)	Garrett Mann
Company Name:	Envision	Company Name:	XTO Energy
Address:	3122 W. 4th, P.O. Box 1111	Address:	3101 E. Greene, St.
City, State ZIP:	Portland, OR 97201	City, State ZIP:	Corvallis, OR 97330
Phone:	337 257 8307	Email:	tmann@xtoenergy.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: _____	

[illegible][illegible]

Total	200.7 / 6010	200.8 / 6020
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8RCRA 13

AS 11 A | S

As Ba Be

Cd Ca

Co Cu

Pb Mg

Mo Ni

Se Ag 5

 $Na\ Sr$

ANUS

3

Circle Method(s) and Metal(s) to be analyzed

TCLP

: 8RCRA

As Ba B

Cd Cr Co

Cu Pb Mn

Mo Ni Se

U T U

Hg: 1

1 / 245.1

410 / 14.

Notice: Signature of this document and relinquishment of sample constitutes a valid purchase order from client company to Eurofins Xeno, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xeno 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 Xeno. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xeno, but not analyzed. These terms will be enforced unless previously negated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		7/1/22 0843			

Revised Date: 08/25/2020 Rev: 2020.2



Environment Testing

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

Chain of Custody

Work Order No: _____

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Page 2 of 2

Project Manager:	TACOMA MANITRY	Bill to: (if different)	Genetix Gen
Company Name:	EnSolum	Company Name:	XTO Energy
Address:	312 N. H. PARKS HWY	Address:	3101 E. ORENE ST.
City, State ZIP:	CARLSBAD NM 88220	City, State ZIP:	CARLSBAD NM 88220
Phone:	337 257 8307	Email:	tracy@xenco.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:	CARLSBAD 832 10311111	Pres. Code	
Project Number:	0361558058	Pres. Code	
Project Location:	Eddy County NM	Pres. Code	
Sampler's Name:	CR CHOI	Pres. Code	
P.O. #:		Pres. Code	
SAMPLE RECEIPT	Temp Blank: ☒ No ☒ Yes	Wet Ice: ☒ No ☒ Yes	
Samples Received Inactive:	Thermometer ID:	Correction Factor:	
Cooler Custody Seals:	Yes ☒ No ☒ N/A	Temperature Reading:	
Sample Custody Seals:	Yes ☒ No ☒ N/A	Corrected Temperature:	
Total Containers:			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	Preservative Codes	Sample Comments
ES11	S	7/17/22	1100	1'	G	1	bTEX EPA method 8260 B	None: NO	
ES12	S	7/17/22	1520	1'	G	1	tpn EPA method 8015 M10	DI Water: H ₂ O	
ES13	S	7/17/22	1530	1'	G	1	Chloride EPA method 8000	Cool: Cool	
ES14	S	7/17/22	1535	1'	G	1		HCL: HC	MeOH: Me
ES15	S	7/17/22	1115	1'	G	1		H ₂ SO ₄ : H ₂	HNO ₃ : HN
ES16	S	7/17/22	1120	1'	G	1		H ₃ PO ₄ : HP	NaOH: Na
ES17	S	7/17/22	1125	1.5'	G	1		NaHSO ₄ : NABIS	
ES18	S	7/17/22	1440	1.5'	G	1		Na ₂ S ₂ O ₅ : NaSO ₃	
ES19	S	7/17/22	1345	1'	G	1		Zn Acetate+NaOH: Zn	
ES20	S	7/17/22	1444	1'	G	1		NaOH+Ascorbic Acid: SACP	

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Cr Co Cu Pb Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	TCLP / SPLP 6010 : 8RCRA	Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U	Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco. Its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$3 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
	Amanda Stief	7/1/22 0843			

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2524-1

SDG Number: 03E1558058

Login Number: 2524

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2524-1

SDG Number: 03E1558058

Login Number: 2524

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 07/12/22 11:11 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	



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2523-2

Laboratory Sample Delivery Group: 03E1558058
Client Project/Site: Corral Canyon 832 103H 163H
Revision: 2

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Tacoma Morrissey

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:
7/29/2022 2:45:31 PM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

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

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

Client: Ensolum
Project/Site: Corral Canyon 832 103H 163H

Laboratory Job ID: 890-2523-2
SDG: 03E1558058

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Definitions/Glossary

Client: Ensolum
Project/Site: Corral Canyon 832 103H 163H

Job ID: 890-2523-2
SDG: 03E1558058

Qualifiers

GC VOA

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

GC Semi VOA

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

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: Corral Canyon 832 103H 163H

Job ID: 890-2523-2
SDG: 03E1558058

Job ID: 890-2523-2

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative 890-2523-2

Comments

No additional comments.

Report revision history

Revision 1 - 7/29/2022 - Reason - Revising sample ID from SS05 to SS04.

Receipt

The samples were received on 7/11/2022 8:41 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.2° C.

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 880-29772 and analytical batch 880-29882 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample 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.

GC Semi VOA

Method 8015B NM: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 880-29505 and analytical batch 880-29501 was outside control limits. Sample non-homogeneity is suspected.

Method 8015B NM: CCV biased high for diesel range hydrocarbons, however an acceptable CCV was analyzed within the 12 hour window, therefore data was qualified and reported.

(CCV 880-29501/57)

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

General Chemistry

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

Organic Prep

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

VOA Prep

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

Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 832 103H 163H

Job ID: 890-2523-2
SDG: 03E1558058

Client Sample ID: SS04

Lab Sample ID: 890-2523-4

Date Collected: 07/06/22 13:50

Matrix: Solid

Date Received: 07/11/22 08:41

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199	mg/Kg		07/14/22 16:34	07/17/22 17:20	1
Toluene	<0.00199	U	0.00199	mg/Kg		07/14/22 16:34	07/17/22 17:20	1
Ethylbenzene	<0.00199	U	0.00199	mg/Kg		07/14/22 16:34	07/17/22 17:20	1
m-Xylene & p-Xylene	<0.00398	U	0.00398	mg/Kg		07/14/22 16:34	07/17/22 17:20	1
o-Xylene	<0.00199	U	0.00199	mg/Kg		07/14/22 16:34	07/17/22 17:20	1
Xylenes, Total	<0.00398	U	0.00398	mg/Kg		07/14/22 16:34	07/17/22 17:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	07/14/22 16:34	07/17/22 17:20	1
1,4-Difluorobenzene (Surr)	97		70 - 130	07/14/22 16:34	07/17/22 17:20	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			07/18/22 15:39	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	72.5		50.0	mg/Kg			07/13/22 09:13	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		07/12/22 08:34	07/12/22 18:34	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		07/12/22 08:34	07/12/22 18:34	1
Oil Range Organics (Over C28-C36)	72.5		50.0	mg/Kg		07/12/22 08:34	07/12/22 18:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130	07/12/22 08:34	07/12/22 18:34	1
o-Terphenyl	102		70 - 130	07/12/22 08:34	07/12/22 18:34	1

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	34.4		4.99	mg/Kg			07/16/22 00:32	1

Eurofins Carlsbad

Surrogate Summary

Client: Ensolum
Project/Site: Corral Canyon 832 103H 163H

Job ID: 890-2523-2
SDG: 03E1558058

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)						
890-2523-4	SS04	109	97						

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)						
890-2523-4	SS04	94	102						

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon 832 103H 163H

Job ID: 890-2523-2
SDG: 03E1558058

GC VOA

Prep Batch: 29772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2523-4	SS04	Total/NA	Solid	5035	

Analysis Batch: 29882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2523-4	SS04	Total/NA	Solid	8021B	29772

Analysis Batch: 29990

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2523-4	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 29501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2523-4	SS04	Total/NA	Solid	8015B NM	29505

Prep Batch: 29505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2523-4	SS04	Total/NA	Solid	8015NM Prep	

Analysis Batch: 29616

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2523-4	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 29461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2523-4	SS04	Soluble	Solid	DI Leach	

Analysis Batch: 29656

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2523-4	SS04	Soluble	Solid	300.0	29461

Lab Chronicle

Client: Ensolum
Project/Site: Corral Canyon 832 103H 163H

Job ID: 890-2523-2
SDG: 03E1558058

Client Sample ID: SS04

Lab Sample ID: 890-2523-4

Date Collected: 07/06/22 13:50

Matrix: Solid

Date Received: 07/11/22 08:41

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	29772	07/14/22 16:34	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	29882	07/17/22 17:20	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			29990	07/18/22 15:39	SM	XEN MID
Total/NA	Analysis	8015 NM		1			29616	07/13/22 09:13	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	29505	07/12/22 08:34	DM	XEN MID
Total/NA	Analysis	8015B NM		1			29501	07/12/22 18:34	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	29461	07/11/22 16:14	SMC	XEN MID
Soluble	Analysis	300.0		1			29656	07/16/22 00:32	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Corral Canyon 832 103H 163H

Job ID: 890-2523-2
SDG: 03E1558058

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	T104704400-22-24	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: Corral Canyon 832 103H 163H

Job ID: 890-2523-2
SDG: 03E1558058

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Corral Canyon 832 103H 163H

Job ID: 890-2523-2
SDG: 03E1558058

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2523-4	SS04	Solid	07/06/22 13:50	07/11/22 08:41	0.5

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


Environment Testing
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 Midland, TX (432) 704-5440 San Antonio, TX (210) 509-3334
 El Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550 Carlsbad, NM (575) 988-3199

Chain of Custody

Work Order No: _____

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Project Manager:	TACOMA MORRISKA	Bill to: (if different)	Garnett Cuen
Company Name:	Ensolium	Company Name:	XTO Energy
Address:	3122 NATI PARKS HWY	Address:	8104 E Greene St.
City, State ZIP:	CARLSBAD NM 88220	City, State ZIP:	CARLSBAD NM 88220
Phone:	33725718307	Email:	tmorriska@ensolium.com

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

Project Name:	CORRAL CANON 832 103H163H	Turn Around	Pres. Code	ANALYSIS REQUEST		Preservative Codes
Project Number:	03E155PDSX	☐ Routine ☒ Rush				None: NO DI Water: H ₂ O
Project Location:	Edin Canmu NM	Due Date:	24 HR			Cool: Cool MeOH: Me
Sampler's Name:	L2 Cheil	TAT starts the day received by the lab, if received by 4:30pm				HCL: HC HNO ₃ : HN
PO #:	N/A	Wet Ice:	Yes No			H ₂ SO ₄ : H ₂ NaOH: Na
SAMPLE RECEIPT	Temp Blank: ☒ Yes No	Thermometer ID:	IN-002			H ₃ PO ₄ : HP
Samples Received Intact:	☒ Yes No	Correction Factor:	-0.2			NaHSO ₄ : NABIS
Cooler Custody Seals:	Yes No	Temperature Reading:	3.4			Na ₂ S ₂ O ₃ : NaSO ₃
Sample Custody Seals:	Yes No (N/A)	Corrected Temperature:	3.2			Zn Acetate+NaOH: Zn
Total Containers:						NaOH+Ascorbic Acid: SAC



890-2523 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	Sample Comments
SS02	S	7/6/22	1149	0.5'	C	1	Dtex epa method 802B	CORRAL CANON
SS03	S	7/6/22	1215				tpn epa method 8015 MLO	P-32 103H163H
SS04	S	7/6/22	1310				chloride epa method 300.0	MAP213U751985
SS05	S	7/6/22	1350					MAP22003591627
								MAP2201252570
								03E155808
								CC#1594651031
								AEG-A DD2017.04
								601: CAP C MP 01: DD
								2017.04576: CAP C MP 01

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		7/6/22 0841			

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2523-2

SDG Number: 03E1558058

Login Number: 2523

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2523-2

SDG Number: 03E1558058

Login Number: 2523**List Number: 2****Creator: Rodriguez, Leticia****List Source: Eurofins Midland****List Creation: 07/12/22 11:11 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	



Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2317-2

Laboratory Sample Delivery Group: 03E1558058

Client Project/Site: Corral Canyon 8-32 163H

For:

Ensolum
705 W. Wadley
Suite 210
Midland, Texas 79701

Attn: Tacoma Morrissey

Authorized for release by:

5/24/2022 11:21:36 AM

Jessica Kramer, Project Manager
(432)704-5440

Jessica.Kramer@et.eurofinsus.com

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

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

Client: Ensolum
Project/Site: Corral Canyon 8-32 163H

Laboratory Job ID: 890-2317-2
SDG: 03E1558058

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Definitions/Glossary

Client: Ensolum
Project/Site: Corral Canyon 8-32 163H

Job ID: 890-2317-2
SDG: 03E1558058

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Corral Canyon 8-32 163H

Job ID: 890-2317-2
SDG: 03E1558058

Job ID: 890-2317-2

Laboratory: Eurofins Carlsbad

Narrative

**Job Narrative
890-2317-2**

Receipt

The samples were received on 5/18/2022 12:39 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.4°C

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 163H

Job ID: 890-2317-2
SDG: 03E1558058

Client Sample ID: SS01

Lab Sample ID: 890-2317-13

Date Collected: 05/17/22 12:10

Matrix: Solid

Date Received: 05/18/22 12:39

Sample Depth: 6

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201	mg/Kg		05/20/22 13:53	05/20/22 22:49	1
Toluene	<0.00201	U	0.00201	mg/Kg		05/20/22 13:53	05/20/22 22:49	1
Ethylbenzene	<0.00201	U	0.00201	mg/Kg		05/20/22 13:53	05/20/22 22:49	1
m-Xylene & p-Xylene	<0.00402	U	0.00402	mg/Kg		05/20/22 13:53	05/20/22 22:49	1
o-Xylene	<0.00201	U	0.00201	mg/Kg		05/20/22 13:53	05/20/22 22:49	1
Xylenes, Total	<0.00402	U	0.00402	mg/Kg		05/20/22 13:53	05/20/22 22:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		70 - 130	05/20/22 13:53	05/20/22 22:49	1
1,4-Difluorobenzene (Surr)	104		70 - 130	05/20/22 13:53	05/20/22 22:49	1

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402	mg/Kg			05/23/22 11:27	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	14400		249	mg/Kg			05/23/22 09:09	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<249	U	249	mg/Kg		05/20/22 10:11	05/21/22 10:46	5
Diesel Range Organics (Over C10-C28)	5810		249	mg/Kg		05/20/22 10:11	05/21/22 10:46	5
Oil Range Organics (Over C28-C36)	8620		249	mg/Kg		05/20/22 10:11	05/21/22 10:46	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	91		70 - 130	05/20/22 10:11	05/21/22 10:46	5
o-Terphenyl	83		70 - 130	05/20/22 10:11	05/21/22 10:46	5

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8250		49.5	mg/Kg			05/23/22 20:39	10

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Surrogate Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 163H

Job ID: 890-2317-2
SDG: 03E1558058

Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1	DFBZ1
		(70-130)	(70-130)
880-15012-A-3-A MS	Matrix Spike	122	99
880-15012-A-3-B MSD	Matrix Spike Duplicate	107	99
890-2317-13	SS01	94	104
LCS 880-25982/1-A	Lab Control Sample	91	108
LCSD 880-25982/2-A	Lab Control Sample Dup	100	101
MB 880-25982/5-A	Method Blank	97	100

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	OTPH1
		(70-130)	(70-130)
890-2317-13	SS01	91	83

Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 163H

Job ID: 890-2317-2
SDG: 03E1558058

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-25982/5-A

Matrix: Solid

Analysis Batch: 25944

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 25982

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		05/20/22 13:53	05/20/22 16:54	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/20/22 13:53	05/20/22 16:54	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/20/22 13:53	05/20/22 16:54	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		05/20/22 13:53	05/20/22 16:54	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/20/22 13:53	05/20/22 16:54	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		05/20/22 13:53	05/20/22 16:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	05/20/22 13:53	05/20/22 16:54	1
1,4-Difluorobenzene (Surr)	100		70 - 130	05/20/22 13:53	05/20/22 16:54	1

Lab Sample ID: LCS 880-25982/1-A

Matrix: Solid

Analysis Batch: 25944

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 25982

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1099		mg/Kg		110	70 - 130
Toluene	0.100	0.09641		mg/Kg		96	70 - 130
Ethylbenzene	0.100	0.07927		mg/Kg		79	70 - 130
m-Xylene & p-Xylene	0.200	0.1594		mg/Kg		80	70 - 130
o-Xylene	0.100	0.08088		mg/Kg		81	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	91		70 - 130
1,4-Difluorobenzene (Surr)	108		70 - 130

Lab Sample ID: LCSD 880-25982/2-A

Matrix: Solid

Analysis Batch: 25944

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 25982

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1037		mg/Kg		104	70 - 130	6	35
Toluene	0.100	0.1027		mg/Kg		103	70 - 130	6	35
Ethylbenzene	0.100	0.09132		mg/Kg		91	70 - 130	14	35
m-Xylene & p-Xylene	0.200	0.1911		mg/Kg		96	70 - 130	18	35
o-Xylene	0.100	0.09568		mg/Kg		96	70 - 130	17	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: 880-15012-A-3-A MS

Matrix: Solid

Analysis Batch: 25944

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 25982

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U	0.0998	0.08554		mg/Kg		86	70 - 130
Toluene	<0.00200	U	0.0998	0.09216		mg/Kg		92	70 - 130

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QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 163H

Job ID: 890-2317-2
SDG: 03E1558058

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

Lab Sample ID: 880-15012-A-3-A MS

Matrix: Solid

Analysis Batch: 25944

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 25982

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.0998	0.08394		mg/Kg		84	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1846		mg/Kg		93	70 - 130
o-Xylene	<0.00200	U	0.0998	0.09338		mg/Kg		93	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	122		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: 880-15012-A-3-B MSD

Matrix: Solid

Analysis Batch: 25944

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 25982

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	<0.00200	U	0.0996	0.08432		mg/Kg		85	70 - 130	1	35
Toluene	<0.00200	U	0.0996	0.08681		mg/Kg		87	70 - 130	6	35
Ethylbenzene	<0.00200	U	0.0996	0.07596		mg/Kg		76	70 - 130	10	35
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1595		mg/Kg		80	70 - 130	15	35
o-Xylene	<0.00200	U	0.0996	0.08062		mg/Kg		81	70 - 130	15	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	107		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-25905/1-A

Matrix: Solid

Analysis Batch: 26074

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			05/23/22 17:26	1

Lab Sample ID: LCS 880-25905/2-A

Matrix: Solid

Analysis Batch: 26074

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	237.3		mg/Kg		95	90 - 110

Lab Sample ID: LCSD 880-25905/3-A

Matrix: Solid

Analysis Batch: 26074

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Chloride	250	237.4		mg/Kg		95	90 - 110	0	20

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QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 163H

Job ID: 890-2317-2
SDG: 03E1558058

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2317-A-11-C MS

Matrix: Solid

Analysis Batch: 26074

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	151		249	390.0		mg/Kg		96	90 - 110		

Lab Sample ID: 890-2317-A-11-D MSD

Matrix: Solid

Analysis Batch: 26074

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	151		249	394.6		mg/Kg		98	90 - 110	1	20

QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 163H

Job ID: 890-2317-2
SDG: 03E1558058

GC VOA

Analysis Batch: 25944

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2317-13	SS01	Total/NA	Solid	8021B	25982
MB 880-25982/5-A	Method Blank	Total/NA	Solid	8021B	25982
LCS 880-25982/1-A	Lab Control Sample	Total/NA	Solid	8021B	25982
LCSD 880-25982/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	25982
880-15012-A-3-A MS	Matrix Spike	Total/NA	Solid	8021B	25982
880-15012-A-3-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	25982

Prep Batch: 25982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2317-13	SS01	Total/NA	Solid	5035	
MB 880-25982/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-25982/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-25982/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-15012-A-3-A MS	Matrix Spike	Total/NA	Solid	5035	
880-15012-A-3-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 26093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2317-13	SS01	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 25868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2317-13	SS01	Total/NA	Solid	8015NM Prep	

Analysis Batch: 25938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2317-13	SS01	Total/NA	Solid	8015B NM	25868

Analysis Batch: 26032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2317-13	SS01	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 25905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2317-13	SS01	Soluble	Solid	DI Leach	
MB 880-25905/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-25905/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-25905/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2317-A-11-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2317-A-11-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 26074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2317-13	SS01	Soluble	Solid	300.0	25905
MB 880-25905/1-A	Method Blank	Soluble	Solid	300.0	25905
LCS 880-25905/2-A	Lab Control Sample	Soluble	Solid	300.0	25905
LCSD 880-25905/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	25905
890-2317-A-11-C MS	Matrix Spike	Soluble	Solid	300.0	25905

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QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 163H

Job ID: 890-2317-2
SDG: 03E1558058

HPLC/IC (Continued)

Analysis Batch: 26074 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2317-A-11-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	25905

- 1
- 2
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- 12
- 13
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Lab Chronicle

Client: Ensolum
Project/Site: Corral Canyon 8-32 163H

Job ID: 890-2317-2
SDG: 03E1558058

Client Sample ID: SS01

Lab Sample ID: 890-2317-13

Date Collected: 05/17/22 12:10

Matrix: Solid

Date Received: 05/18/22 12:39

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	25982	05/20/22 13:53	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	25944	05/20/22 22:49	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26093	05/23/22 11:27	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26032	05/23/22 09:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	25868	05/20/22 10:11	DM	XEN MID
Total/NA	Analysis	8015B NM		5			25938	05/21/22 10:46	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	25905	05/19/22 12:41	CH	XEN MID
Soluble	Analysis	300.0		10			26074	05/23/22 20:39	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 163H

Job ID: 890-2317-2
SDG: 03E1558058

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 163H

Job ID: 890-2317-2
SDG: 03E1558058

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

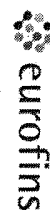
Sample Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 163H

Job ID: 890-2317-2
SDG: 03E1558058

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2317-13	SS01	Solid	05/17/22 12:10	05/18/22 12:39	6

- 1
- 2
- 3
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- 12
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Environment Testing
Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-4443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Chain of Custody

Work Order No:

2

www.xenco.com Page 1 of 1

Project Manager:	Tacoma Morrissey	Bill to: (if different)	Adrian Baker
Company Name:	Ensolum	Company Name:	XTO Energy, Inc.
Address:	3122 National Parks Hwy	Address:	3104 E. Green Street
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	337-257-8307	Email:	lmorrissey@ensolum.com

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

[illegible][illegible]

Circle Method(s) and Metal(s) to be analyzed	Total 200.7 / 6010	200.8 / 6020:
8RCRA 13PPM	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO ₂ Na Sr Ti Sn U V Zn	
TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U		Hq: 1631 / 245, 1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xencro, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xencro 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 Xencro. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xencro, 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		2			
3		4			
5		6			

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2317-2

SDG Number: 03E1558058

Login Number: 2317**List Number: 1****Creator: Olivas, Nathaniel****List Source: Eurofins Carlsbad**

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2317-2

SDG Number: 03E1558058

Login Number: 2317**List Number: 2****Creator: Rodriguez, Leticia****List Source: Eurofins Midland****List Creation: 05/20/22 09:00 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").	False	



APPENDIX D

NMOCD Notifications

From: [Green, Garrett J](#)
To: ocd.enviro@state.nm.us; [Bratcher, Mike, EMNRD](#); [Hamlet, Robert, EMNRD](#)
Cc: [Tacoma Morrissey](#); [Ben Belill](#); [Kalei Jennings](#); [Aimee Cole](#)
Subject: XTO - Sampling Notification (week of 7/4/22 - 7/8/22)
Date: Friday, July 1, 2022 10:59:20 AM

[**EXTERNAL EMAIL**]

All,

XTO plans to complete final sampling activities at the following sites the week of July 4, 2022.

Thursday, July 7th

- Corral Canyon 163H / nAPP2134755985, NAPP2200359627, NAPP2201252570
- PLU 442, 443 Battery / nAPP2214734717

Friday, July 8th

- Corral Canyon 163H / nAPP2134755985, NAPP2200359627, NAPP2201252570
- Corral Canyon 16 SWD / nAPP2213941404

Thank you,

Garrett Green

Environmental Coordinator

Delaware Business Unit

(575) 200-0729

Garrett.Green@ExxonMobil.com

XTO Energy, Inc.

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

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

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

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

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

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

CONDITIONS

Action 131865

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 131865
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	8/10/2022