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	NAPP2136455950
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party XTO Energy	OGRID 5380
Contact Name Shelby Pennington	Contact Telephone 281-723-9353
Contact email shelby.g.pennington@exxonmobil.com	Incident # *(assigned by OCD)*
Contact mailing address 6401 Holiday Hill Rd Bldg 5, Midland, Texas, 79707	

Location of Release Source

Latitude 32.14489 Longitude -104.01174
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Corral Canyon 8-32 Fed 121H	Site Type Well Pad
Date Release Discovered 12/16/2021	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
E	8	25S	29E	Eddy

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

Nature and Volume of Release

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

☐ Crude Oil	Volume Released (bbls)	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) Treated Water	Volume/Weight Released (provide units) 8 bbls	Volume/Weight Recovered (provide units) 4 bbls

Cause of Release: During a switch of frac blenders treated frac water was released in containment and on pad. All standing fluids were recovered. A third party contractor will be retained for remediation activities.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2136455950
District RP	
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Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release? N/A

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

Initial Response

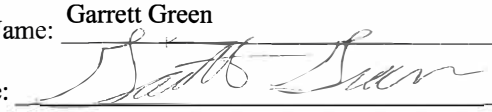
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

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

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

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

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

Printed Name: Garrett Green
Title: SSHE Coordinator
Signature: 
Date: 12/30/2021
email: garrett.green@exxonmobil.com
Telephone: 575-200-0729

OCD Only

Received by: Ramona Marcus
Date: 1/3/2021

Location:	Corral Canyon 8-32 Fed 121H	
Spill Date:	12/16/2021	
Area 1		
Approximate Area =	5128.00	sq. ft.
Average Saturation (or depth) of spill =	1.75	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Produced Water =	4.00	bbls
Area 2		
Approximate Area =	22.46	sq. ft.

VOLUME RECOVERED		
Total Produced Water =	4.00	bbls

TOTAL VOLUME OF LEAK		
Total Produced Water =	**8.00**	**bbls**
TOTAL VOLUME RECOVERED		
Total Produced Water =	**4.00**	**bbls**

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

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

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 69746
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rmarcus	None	1/3/2022

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2136455950
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2136455950
District RP	
Facility ID	
Application ID	

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

Printed Name: ___Adrian Baker_____ Title: _____Environmental Coordinator_____

Signature:_____Adrian Baker_____ Date: __06/14/2022_____

email: __adrian.baker@exxonmobil.com_____ Telephone: __432-236-3808_____

OCD Only

Received by: _____ Date: _____

Incident ID	NAPP2136455950
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: _____Adrian Baker_____ Title: __Environmental Coordinator_____

Signature: _____Adrian Baker_____ Date: __06/14/2022_____

email: ____adrian.baker@exxonmobil.com_____ Telephone: ____432-236-3808_____

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: Jennifer Nobui Date: 08/16/2022

Printed Name: Jennifer Nobui Title: Environmental Specialist A

ENSOLUM

June 10, 2022

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

Re: Closure Request
Corral Canyon 8-32 Fed 121H
Incident Number NAPP2136455950
Eddy County, New Mexico

To Whom it May Concern:

Ensolum, LLC (Ensolum) on behalf of XTO Energy, Inc. (XTO), has prepared this Closure Request to document site assessment, excavation, and soil sampling activities performed at the Corral Canyon 8-32 Fed 121H (Site). The purpose of the site assessment, excavation, and soil sampling activities was to address impacts to soil resulting from a release of treated hydraulic fracturing (frac) water at the Site. 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 Number NAPP2136455950.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in Unit E, Section 8, Township 25 South, Range 29 East, in Eddy County, New Mexico (32.14489° N, 104.01174° W) and is associated with oil and gas exploration and production operations on Bureau of Land Management (BLM) Federal Land.

On December 16, 2021, a switch of frac blenders resulted in the release of 8 barrels (bbls) of treated frac water into a temporary lined containment and onto the well pad. A vacuum truck was immediately dispatched to the Site to recover the free-standing fluids; approximately 4 bbls of treated water were recovered. XTO reported the release to the NMOCD on a Release Notification Form C-141 (Form C-141) on December 30, 2021. The release was assigned Incident Number NAPP2136455950.

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

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 closest permitted groundwater well with depth to groundwater data is New Mexico Office of the State Engineer well C-02518, located approximately 0.5 miles southeast of the Site. The well was drilled on June 2, 1997, and has a total depth of 462 feet bgs. No groundwater was encountered during drilling of the well, indicating depth to groundwater is greater than 462 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 a dry wash, located approximately 835 feet south 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 (low potential karst designation area). Site receptors are identified on Figure 1.

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

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

SITE ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

On February 9, 2022, a Site visit was completed to evaluate the release extent. The temporary lined containment was mapped utilizing a handheld Global Positioning System (GPS) unit and is depicted on Figure 2. Further site assessment and remediation efforts were postponed due to ongoing frac operations near the release, which resulted in activity restrictions at the Site due to safety concerns. Photographic documentation was completed during the Site visit and a photographic log is included in Appendix B.

On April 25, 2022, once frac operations were complete, site assessment activities were conducted to evaluate the release extent based on information provided on the Form C-141 and visual observations. The temporary containment had been removed at the time of the Site visit. Six preliminary soil samples (SS01 through SS06) 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 using Hach® chloride QuanTab® test strips. The release extent and preliminary soil sample locations were mapped utilizing a handheld GPS unit and are depicted on Figure 2.

The soil samples were placed directly into pre-cleaned glass jars, labeled with the location, date, time, sampler name, method of analysis, and immediately placed on ice. The soil samples were transported 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 samples SS01 and SS02, collected within the release area, indicated that TPH-GRO/TPH-DRO and/or TPH concentrations exceeded the Closure Criteria. Laboratory analytical results for preliminary soil samples SS03 through SS06, collected around the release extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria, and successfully defined the lateral extent of the release. Based on visible staining in the release area, elevated field screening results, and laboratory analytical results for the preliminary soil samples, delineation and excavation activities were warranted.

DELINEATION AND EXCAVATION SOIL SAMPLING ACTIVITIES

On May 16, 2022 and May 17, 2022, Ensolum personnel were at the Site to oversee delineation and excavation activities. Potholes were advanced via backhoe at the SS01 and SS02 preliminary soil sample locations, to assess the vertical extent of impacted soil. The potholes were advanced to a depth of 2 feet bgs. Delineation soil samples SS01A and SS02A were collected from the potholes at a depth of 2 feet bgs. Soil from the potholes was field screened for volatile aromatic hydrocarbons and chloride utilizing PID and Hach® chloride QuanTab® test strips, respectively. Field screening results and observations for the potholes were logged on lithologic soil sampling logs, which are included in Appendix C. The pothole and delineation soil sample locations are depicted on Figure 2.

Upon completion of delineation activities, impacted soil was excavated from the areas around preliminary soil samples SS01 and SS02 as indicated by visible staining, laboratory analytical results, and field screening results for the delineation 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 a depth of 1-foot 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 excavations. 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 FS02 were collected from the floor of the excavations from a depth of 1 foot bgs. Due to the shallow depth of the excavations, the floor samples were also representative of the excavation sidewalls. 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 combined excavation areas measured approximately 392 square feet. A total of approximately 20 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 Hobbs, New Mexico.

LABORATORY ANALYTICAL RESULTS

Laboratory analytical results for delineation soil samples SS01A and SS02A, collected at 2 feet bgs indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria, and successfully defined the vertical extent of impacted soil.

Laboratory analytical results for excavation floor samples FS01 through FS02 indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Closure Criteria. Laboratory analytical results are summarized in Table 1 and laboratory analytical reports are included as Appendix D.

CLOSURE REQUEST

Site assessment and excavation activities were conducted at the Site to address the December 16, 2021, release of treated frac water. Laboratory analytical results for the excavation soil samples, collected from the final excavation extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and compliant with the most stringent Table 1 Closure Criteria. Additionally, the release was laterally delineated to below the most stringent Table 1 Closure Criteria. Based on the soil sample analytical results, no further remediation was required. XTO will backfill the excavation with material purchased locally and recontour the Site to match pre-existing site conditions.

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. As such, XTO respectfully requests closure for Incident Number NAPP2136455950.

If you have any questions or comments, please contact Ms. Aimee Cole at (720) 384-7365 or acole@ensolum.com.

Sincerely,
Ensolum, LLC

Tacoma Morrissey
Senior Geologist

Aimee Cole
Senior Managing Scientist

cc: Adrian Baker, XTO
Bureau of Land Management

Appendices:

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

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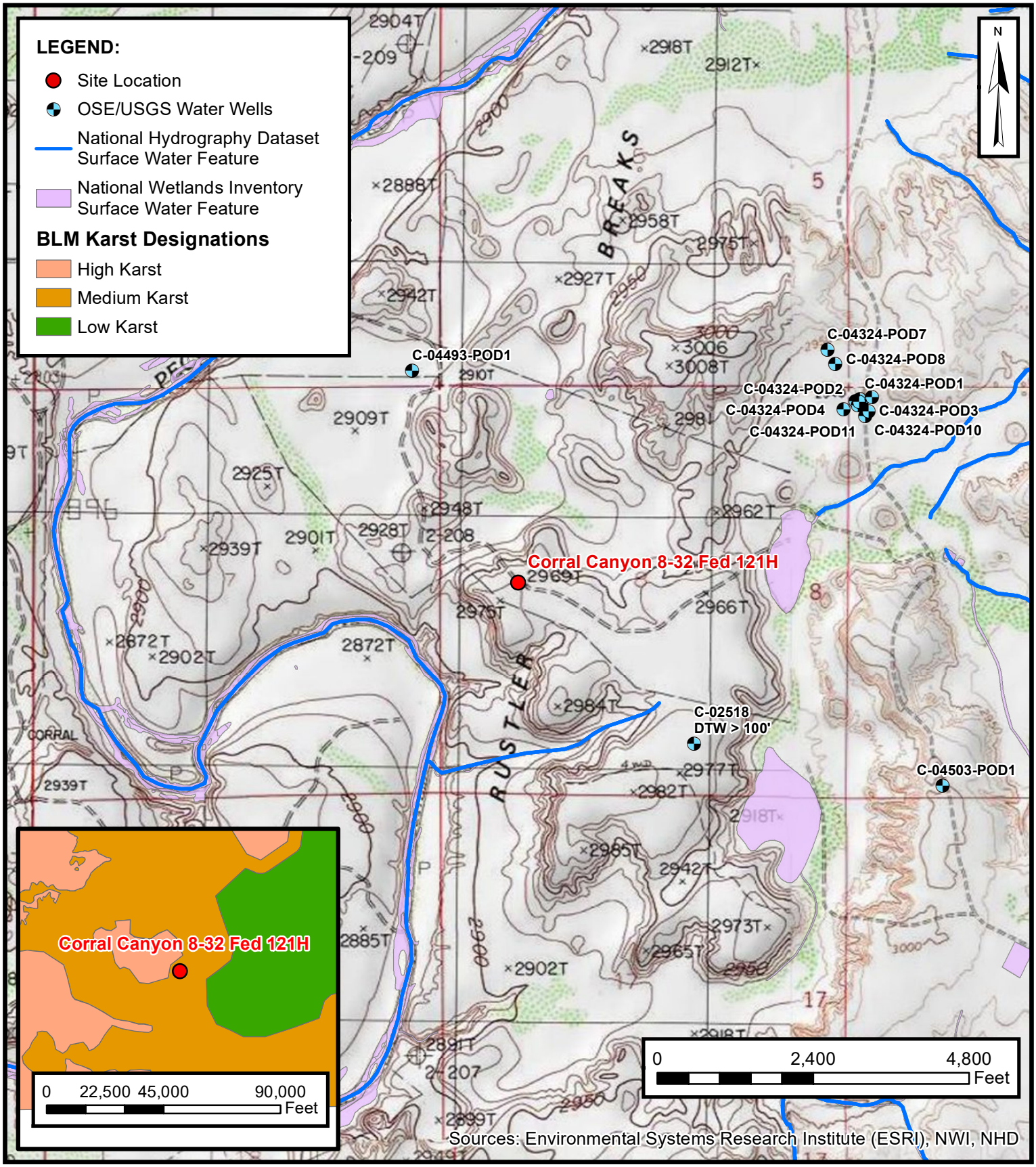
FIGURES

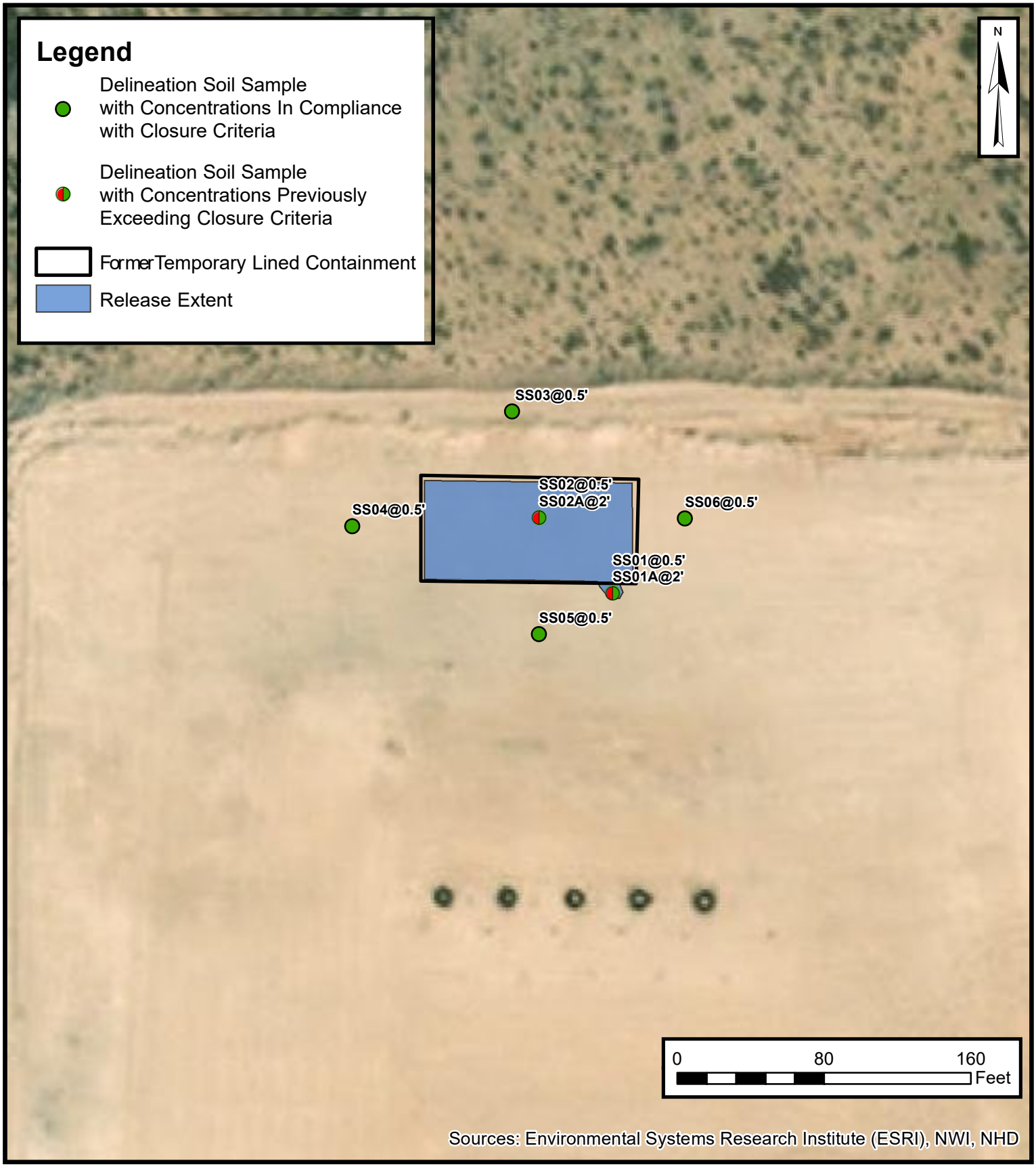


ENSOLUM
Environmental & Hydrogeologic Consultants

SITE RECEPTOR MAP

Corral Canyon 8-32 Fed 121H
XTO Energy Inc
Unit E Sec 8 T25S R29E
Eddy County, NM

FIGURE
1



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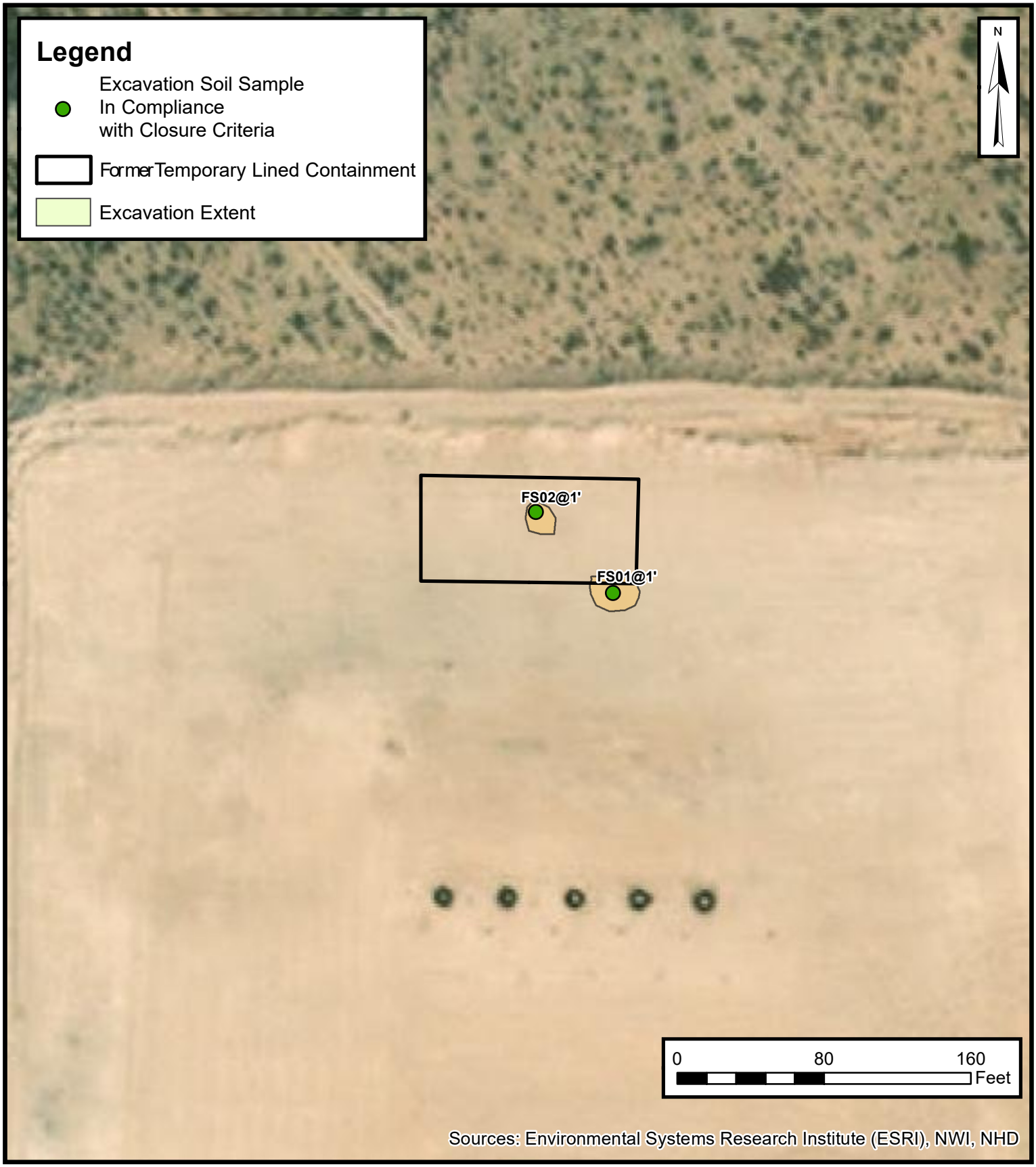
Environmental & Hydrogeologic Consultants

Delineation Soil Sample Locations

Corral Canyon 8-32 Fed 121H
XTO Energy Inc
Unit E Sec 8 T25S R29E
Eddy County, NM

FIGURE
2



ENSOLUM
Environmental & Hydrogeologic Consultants

Excavation Soil Sample Locations

Corral Canyon 8-32 Fed 121H
XTO Energy Inc
Unit E Sec 8 T25S R29E
Eddy County, NM

FIGURE
3

ENSOLUM

TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Corral Canyon 8-32 Fed 121H
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
Delineation Soil Samples										
SS01	04/25/2022	0.5	<0.00199	<0.00398	<49.9	2,580	<49.9	**2,580**	**2,580**	577
SS01A	05/16/2022	2.0	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	201
SS02	04/25/2022	0.5	<0.00198	<0.00397	<49.8	1,350	<49.8	**1,350**	1,350	2,260
SS02A	05/16/2022	2.0	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	729
SS03	04/25/2022	0.5	<0.00199	<0.00398	<50.0	69.3	<50.0	69.3	69.3	50.8
SS04	04/25/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	20.3
SS05	04/25/2022	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	15.9
SS06	04/25/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<49.9	14.7
Confirmation Soil Samples										
FS01	05/17/2022	1	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	<50.0	151
FS02	05/17/2022	1	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	148

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
Soil Samples in grey text have been excavated

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APPENDIX A

Referenced Well Records

5K

STATE ENGINEER OFFICE

WELL RECORD

465788

Revised June 1972

OFFICE OF STATE ENGINEER SANTA FE, NEW MEXICO '99 FEB 1 PM 1 29

Section 1. GENERAL INFORMATION

(A) Owner of well Penwell Energy Owner's Well No. 0

Street or Post Office Address c/o Glenn's Water Well Service

City and State P.O.Box 692 Tatum, NM 88267

Well was drilled under Permit No. C-2518 and is located in the:

a. ___ ¼ ___ ¼ SW ¼ SE ¼ 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 -421

Address P.O. Box 692 Tatum, NM 88267

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

Section 3. RECORD OF CASING

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

Section 4. RECORD OF MUDDING AND CEMENTING

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

Section 5. PLUGGING RECORD

Plugging Contractor well was back filled with cutting

Address and drilling mud

Plugging Method ___

Date Well Plugged ___

Plugging approved by:

State Engineer Representative

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

FOR USE OF STATE ENGINEER ONLY

Date Received 06-10-97

Quad ___ FWL ___ FSL ___

File No. C-2518 Use OWD "Dry Hole" Location No. 25S.29E.8.43412

Section 6. LOG OF HOLE

Depth in Feet From	Depth in Feet To	Thickness in Feet	Color and Type of Material Encountered
0	2	2	soil
2	15	13	caleche & sand
15	25	10	sand & gravel
25	105	80	red clay
105	305	200	brown clay
305	345	40	red clay
345	405	60	anhydrite
405	415	10	redish lime & anhydrite
415	450	35	anhydrite
450	460	10	red clay

'97 JUN 10 PM 1 17

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 Flores
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 [redacted]on 5, shall be answered as completely and [redacted]rately as possible when any well is drilled, repaired or deepened. When this form is [redacted]ed as a plugging record, only Section 1(a) and Section 5 need be completed.

National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater | Geographic Area: United States | GO

Click to hideNews Bulletins

- Explore the *NEW* USGS National Water Dashboard interactive map to access real-time water data from over 13,500 stations nationwide.
- Full News

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

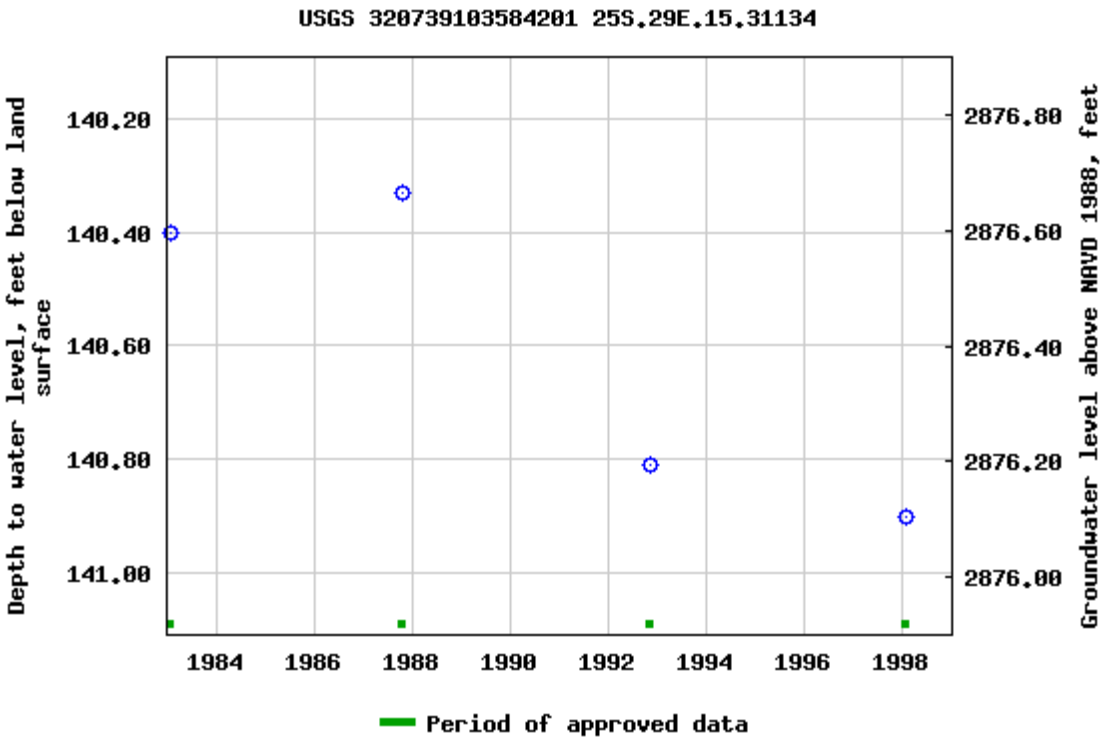
USGS 320739103584201 25S.29E.15.31134

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

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.
Download a presentation-quality graph

Questions about sites/data?
Feedback on this web site
Automated retrievals
Help
Data Tips
Explanation of terms
Subscribe for system changes
News

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: 2022-06-07 12:04:47 EDT
0.7 0.63 nadww01

ENSOLUM

APPENDIX B

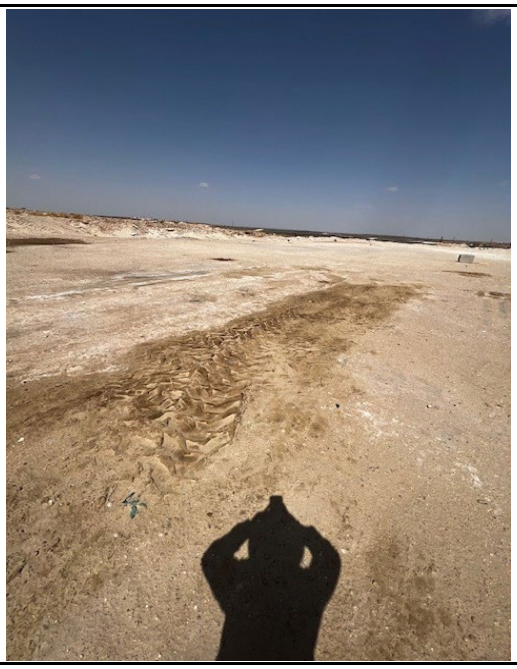
Photographic Log

ENSOLUM

Photographic Log
XTO Energy, Inc.
Corral Canyon 8-32 Fed 121H
Incident Number NAPP2136455950

Photograph 1 Date: Feb 9, 2022
Description: View of release extent on pad facing northwest.

Photograph 2 Date: Feb 9, 2022
Description: View of temporary containment facing northeast.



Photograph 3 Date: Apr 28, 2022
Description: View of release extent on pad facing northeast, following removal of the temorary containment.

Photograph 4 Date: May 16, 2022
Description: View of completed excavation extent facing east .

ENSOLUM

APPENDIX C

Lithologic Soil Sampling Logs

ENSOLUM	Sample Name: **SS01**	Date: **4/28/22, 5/16/22**
	Site Name: **Corral Canyon 8-32 Fed 121H**	
	Incident Number: **NAPP2136455950**	
	Job Number: **03E1558036**	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: AC, EC	Method: Auger/Backhoe
Coordinates: **32.144891, -104.011740**	Hole Diameter: NA	Total Depth: **2'**

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	1,764	10.1	N	SS01	0.5	0 – 0.5	CCHE	CALICHE, light tan, poorly graded, poorly sorted, fine grain, abundant angular gravel, no stain, HC odor.
D	<128	3.4	N	SS01A	2	1 – 2	CCHE	SAA, no odor.

TD @ 2 feet bgs

ENSOLUM	Sample Name: **SS02**	Date: **4/28/22, 5/16/22**
	Site Name: **Corral Canyon 8-32 Fed 121H**	
	Incident Number: **NAPP2136455950**	
	Job Number: **03E1558036**	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: AC, EC	Method: Auger/Backhoe
Coordinates: **32.144957, -104.011874**	Hole Diameter: NA	Total Depth: **2'**

Comments: Field screening conducted with HACH Chloride Test Strips and PID for chloride and vapor, respectively. Chloride test performed with 1:4 dilution factor of soil to distilled water. No correction factors included.

Moisture Content	Chloride (ppm)	Vapor (ppm)	Staining	Sample ID	Sample Depth (ft bgs)	Depth (ft bgs)	USCS/Rock Symbol	Lithologic Descriptions
D	2,312.8	3.5	N	SS02	0.5	0 – 0.5	CCHE	CALICHE, light tan, poorly graded, poorly sorted, fine grain, abundant angular gravel, no stain, HC odor.
D	356	0.6	N	SS02A	2	1 – 2	CCHE	SAA, no odor.

TD @ 2 feet bgs

ENSOLUM

APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 890-2247-1
Laboratory Sample Delivery Group: 03E1558036
Client Project/Site: Corral Canyon 8-32 121H

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
5/3/2022 4:03:07 PM

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

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

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

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Laboratory Job ID: 890-2247-1
SDG: 03E1558036

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-2247-1
Project/Site: Corral Canyon 8-32 121H SDG: 03E1558036

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2247-1
SDG: 03E1558036

Job ID: 890-2247-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2247-1

Receipt
The samples were received on 4/27/2022 8:21 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C

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

GC Semi VOA
Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-24405 and analytical batch 880-24563 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-24405 and analytical batch 880-24563 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: (890-2244-A-21-B MS) and (890-2244-A-21-C MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC
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 121H

Job ID: 890-2247-1
SDG: 03E1558036

Client Sample ID: SS01

Lab Sample ID: 890-2247-1
Matrix: Solid
Date Collected: 04/25/22 15:50
Date Received: 04/27/22 08:21
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:12	05/02/22 19:41	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:12	05/02/22 19:41	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:12	05/02/22 19:41	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/02/22 08:12	05/02/22 19:41	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:12	05/02/22 19:41	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/02/22 08:12	05/02/22 19:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*05/02/22 08:12*	*05/02/22 19:41*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*05/02/22 08:12*	*05/02/22 19:41*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/03/22 08:51	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**2580**		49.9		mg/Kg			05/02/22 11:24	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		04/28/22 11:23	05/01/22 04:03	1
Diesel Range Organics (Over C10-C28)	**2580**		49.9		mg/Kg		04/28/22 11:23	05/01/22 04:03	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/28/22 11:23	05/01/22 04:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*80*		*70 - 130*	*04/28/22 11:23*	*05/01/22 04:03*	*1*
o-Terphenyl	*77*		*70 - 130*	*04/28/22 11:23*	*05/01/22 04:03*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**577**		4.95		mg/Kg			05/01/22 18:59	1

Client Sample ID: SS02

Lab Sample ID: 890-2247-2
Matrix: Solid
Date Collected: 04/25/22 15:55
Date Received: 04/27/22 08:21
Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/02/22 08:12	05/02/22 20:08	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/02/22 08:12	05/02/22 20:08	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/02/22 08:12	05/02/22 20:08	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		05/02/22 08:12	05/02/22 20:08	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/02/22 08:12	05/02/22 20:08	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		05/02/22 08:12	05/02/22 20:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*05/02/22 08:12*	*05/02/22 20:08*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2247-1
SDG: 03E1558036

Client Sample ID: SS02

Date Collected: 04/25/22 15:55
Date Received: 04/27/22 08:21
Sample Depth: 0.5

Lab Sample ID: 890-2247-2

Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*05/02/22 08:12*	*05/02/22 20:08*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			05/03/22 08:51	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**1350**		49.8		mg/Kg			05/02/22 11:24	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		04/28/22 11:23	05/01/22 04:23	1
Diesel Range Organics (Over C10-C28)	**1350**		49.8		mg/Kg		04/28/22 11:23	05/01/22 04:23	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		04/28/22 11:23	05/01/22 04:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*84*		*70 - 130*	*04/28/22 11:23*	*05/01/22 04:23*	*1*
o-Terphenyl	*85*		*70 - 130*	*04/28/22 11:23*	*05/01/22 04:23*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**2260**		25.0		mg/Kg			05/02/22 13:48	5

Surrogate Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2247-1
SDG: 03E1558036

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)
880-13978-A-5-E MS	Matrix Spike	111	98
880-13978-A-5-F MSD	Matrix Spike Duplicate	105	101
890-2247-1	SS01	97	103
890-2247-2	SS02	104	96
LCS 880-24600/1-A	Lab Control Sample	109	103
LCSD 880-24600/2-A	Lab Control Sample Dup	110	101
MB 880-24600/5-A	Method Blank	82	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)
890-2244-A-21-B MS	Matrix Spike	82	62 S1-
890-2244-A-21-C MSD	Matrix Spike Duplicate	73	57 S1-
890-2247-1	SS01	80	77
890-2247-2	SS02	84	85
LCS 880-24405/2-A	Lab Control Sample	91	79
LCSD 880-24405/3-A	Lab Control Sample Dup	104	100
MB 880-24405/1-A	Method Blank	89	87

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2247-1
SDG: 03E1558036

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-24600/5-A
Matrix: Solid
Analysis Batch: 24597

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24600

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:12	05/02/22 11:36	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:12	05/02/22 11:36	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:12	05/02/22 11:36	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/02/22 08:12	05/02/22 11:36	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:12	05/02/22 11:36	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/02/22 08:12	05/02/22 11:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*82*		*70 - 130*	*05/02/22 08:12*	*05/02/22 11:36*	*1*
1,4-Difluorobenzene (Surr)	*84*		*70 - 130*	*05/02/22 08:12*	*05/02/22 11:36*	*1*

Lab Sample ID: LCS 880-24600/1-A
Matrix: Solid
Analysis Batch: 24597

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24600

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09633		mg/Kg		96	70 - 130		
Toluene			0.100	0.08295		mg/Kg		83	70 - 130		
Ethylbenzene			0.100	0.09115		mg/Kg		91	70 - 130		
m-Xylene & p-Xylene			0.200	0.1840		mg/Kg		92	70 - 130		
o-Xylene			0.100	0.09343		mg/Kg		93	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*

Lab Sample ID: LCSD 880-24600/2-A
Matrix: Solid
Analysis Batch: 24597

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 24600

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08671		mg/Kg		87	70 - 130	11	35
Toluene			0.100	0.07875		mg/Kg		79	70 - 130	5	35
Ethylbenzene			0.100	0.08820		mg/Kg		88	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1768		mg/Kg		88	70 - 130	4	35
o-Xylene			0.100	0.09142		mg/Kg		91	70 - 130	2	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*110*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 880-13978-A-5-E MS
Matrix: Solid
Analysis Batch: 24597

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 24600

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00202	U	0.0996	0.09708		mg/Kg		97	70 - 130		
Toluene	<0.00202	U	0.0996	0.08513		mg/Kg		85	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2247-1
SDG: 03E1558036

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

Lab Sample ID: 880-13978-A-5-E MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 24597 — **Prep Batch: 24600**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U	0.0996	0.09669		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	<0.00404	U	0.199	0.1936		mg/Kg		97	70 - 130
o-Xylene	<0.00202	U	0.0996	0.09756		mg/Kg		98	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*111*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: 880-13978-A-5-F MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 24597 — **Prep Batch: 24600**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.0994	0.08939		mg/Kg		90	70 - 130	8	35
Toluene	<0.00202	U	0.0994	0.08122		mg/Kg		82	70 - 130	5	35
Ethylbenzene	<0.00202	U	0.0994	0.08920		mg/Kg		90	70 - 130	8	35
m-Xylene & p-Xylene	<0.00404	U	0.199	0.1777		mg/Kg		89	70 - 130	9	35
o-Xylene	<0.00202	U	0.0994	0.09108		mg/Kg		92	70 - 130	7	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

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

Lab Sample ID: MB 880-24405/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 24563 — **Prep Batch: 24405**

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0	mg/Kg		04/28/22 11:23	04/30/22 21:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/28/22 11:23	04/30/22 21:38	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/28/22 11:23	04/30/22 21:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*04/28/22 11:23*	*04/30/22 21:38*	*1*
o-Terphenyl	*87*		*70 - 130*	*04/28/22 11:23*	*04/30/22 21:38*	*1*

Lab Sample ID: LCS 880-24405/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 24563 — **Prep Batch: 24405**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	687.7	*-	mg/Kg		69	70 - 130
Diesel Range Organics (Over C10-C28)	1000	839.1		mg/Kg		84	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2247-1
SDG: 03E1558036

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

Lab Sample ID: LCS 880-24405/2-A
Matrix: Solid
Analysis Batch: 24563

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24405

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	91		70 - 130
o-Terphenyl	79		70 - 130

Lab Sample ID: LCSD 880-24405/3-A
Matrix: Solid
Analysis Batch: 24563

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 24405

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	598.1	*-	mg/Kg		60	70 - 130	14	20
Diesel Range Organics (Over C10-C28)			1000	903.2		mg/Kg		90	70 - 130	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	100		70 - 130

Lab Sample ID: 890-2244-A-21-B MS
Matrix: Solid
Analysis Batch: 24563

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 24405

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 *-	999	771.3		mg/Kg		77	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	773.5		mg/Kg		77	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	82		70 - 130
o-Terphenyl	62	S1-	70 - 130

Lab Sample ID: 890-2244-A-21-C MSD
Matrix: Solid
Analysis Batch: 24563

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 24405

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	999	880.9		mg/Kg		88	70 - 130	13	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	711.8		mg/Kg		71	70 - 130	8	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	73		70 - 130
o-Terphenyl	57	S1-	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2247-1
SDG: 03E1558036

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-24410/1-A
Matrix: Solid
Analysis Batch: 24592

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/01/22 14:12	1

Lab Sample ID: LCS 880-24410/2-A
Matrix: Solid
Analysis Batch: 24592

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	232.0		mg/Kg		93	90 - 110		

Lab Sample ID: LCSD 880-24410/3-A
Matrix: Solid
Analysis Batch: 24592

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	225.8		mg/Kg		90	90 - 110	3	20

Lab Sample ID: 890-2244-A-31-D MS
Matrix: Solid
Analysis Batch: 24592

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	11.4		250	277.4		mg/Kg		107	90 - 110		

Lab Sample ID: 890-2244-A-31-E MSD
Matrix: Solid
Analysis Batch: 24592

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	11.4		250	258.1		mg/Kg		99	90 - 110	7	20

QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2247-1
SDG: 03E1558036

GC VOA

Analysis Batch: 24597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2247-1	SS01	Total/NA	Solid	8021B	24600
890-2247-2	SS02	Total/NA	Solid	8021B	24600
MB 880-24600/5-A	Method Blank	Total/NA	Solid	8021B	24600
LCS 880-24600/1-A	Lab Control Sample	Total/NA	Solid	8021B	24600
LCSD 880-24600/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	24600
880-13978-A-5-E MS	Matrix Spike	Total/NA	Solid	8021B	24600
880-13978-A-5-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	24600

Prep Batch: 24600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2247-1	SS01	Total/NA	Solid	5035	
890-2247-2	SS02	Total/NA	Solid	5035	
MB 880-24600/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-24600/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-24600/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-13978-A-5-E MS	Matrix Spike	Total/NA	Solid	5035	
880-13978-A-5-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 24702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2247-1	SS01	Total/NA	Solid	Total BTEX	
890-2247-2	SS02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 24405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2247-1	SS01	Total/NA	Solid	8015NM Prep	
890-2247-2	SS02	Total/NA	Solid	8015NM Prep	
MB 880-24405/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-24405/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-24405/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2244-A-21-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2244-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 24563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2247-1	SS01	Total/NA	Solid	8015B NM	24405
890-2247-2	SS02	Total/NA	Solid	8015B NM	24405
MB 880-24405/1-A	Method Blank	Total/NA	Solid	8015B NM	24405
LCS 880-24405/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	24405
LCSD 880-24405/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	24405
890-2244-A-21-B MS	Matrix Spike	Total/NA	Solid	8015B NM	24405
890-2244-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	24405

Analysis Batch: 24640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2247-1	SS01	Total/NA	Solid	8015 NM	
890-2247-2	SS02	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2247-1
SDG: 03E1558036

HPLC/IC

Leach Batch: 24410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2247-1	SS01	Soluble	Solid	DI Leach	
890-2247-2	SS02	Soluble	Solid	DI Leach	
MB 880-24410/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-24410/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-24410/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2244-A-31-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2244-A-31-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 24592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2247-1	SS01	Soluble	Solid	300.0	24410
890-2247-2	SS02	Soluble	Solid	300.0	24410
MB 880-24410/1-A	Method Blank	Soluble	Solid	300.0	24410
LCS 880-24410/2-A	Lab Control Sample	Soluble	Solid	300.0	24410
LCSD 880-24410/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	24410
890-2244-A-31-D MS	Matrix Spike	Soluble	Solid	300.0	24410
890-2244-A-31-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	24410

Lab Chronicle

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2247-1
SDG: 03E1558036

Client Sample ID: SS01

Date Collected: 04/25/22 15:50
Date Received: 04/27/22 08:21

Lab Sample ID: 890-2247-1
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	24600	05/02/22 08:12	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24597	05/02/22 19:41	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24702	05/03/22 08:51	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24640	05/02/22 11:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	24405	04/28/22 11:23	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24563	05/01/22 04:03	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	24410	04/28/22 11:35	SC	XEN MID
Soluble	Analysis	300.0		1			24592	05/01/22 18:59	CH	XEN MID

Client Sample ID: SS02

Date Collected: 04/25/22 15:55
Date Received: 04/27/22 08:21

Lab Sample ID: 890-2247-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	24600	05/02/22 08:12	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24597	05/02/22 20:08	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24702	05/03/22 08:51	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24640	05/02/22 11:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	24405	04/28/22 11:23	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24563	05/01/22 04:23	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	24410	04/28/22 11:35	SC	XEN MID
Soluble	Analysis	300.0		5			24592	05/02/22 13:48	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 121H

Job ID: 890-2247-1
SDG: 03E1558036

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 121H

Job ID: 890-2247-1
SDG: 03E1558036

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 121H

Job ID: 890-2247-1
SDG: 03E1558036

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2247-1	SS01	Solid	04/25/22 15:50	04/27/22 08:21	0.5
890-2247-2	SS02	Solid	04/25/22 15:55	04/27/22 08:21	0.5

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Chain of Custody

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

Work Order No: _____

www.xenco.com Page 1 of 1

Project Manager:	K Jennings	Bill to: (if different)	Adrian Bakers
Company Name:	Elsolun	Company Name:	XTO Energy
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:		Email:	KJennings@ensolun.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:	Corral Canyon 8-32 121H	Turn Around	☑ Routine ☐ Rush
Project Number:	03E1558036	Due Date:	
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	A Castro		
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	T-NM-07
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	1.0
Total Containers:		Corrected Temperature:	8

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	BTEX (EPA 8021)	TPH (EPA 8015)	Chloride (EPA 300)
SS01	S	4/26/22	1550	0.5		1		X	X	X
SS02	↓	↓	1555	↓		1		X	X	X

890-2247 Chain of Custody

Sample Comments

Incident#
NAPP2136455950
AFE
DD 2017.04602.CAP, CAP.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 Tl Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 HC		4/26/22 1730	2		4/27/22 [illegible]
3		4/27/22 9:21	4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

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

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Kramer Jessica	Carrier Tracking No(s):	COC No: 890-730 1
Client Contact: Shipping/Receiving	Phone	E-Mail: Jessica Kramer@et eurofinsus com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-2247-1
Address: 1211 W Florida Ave	Due Date Requested: 5/3/2022			
City: Midland	TAT Requested (days):			
State, Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Corral Canyon 8-32 121H	Project #: 89000093			
Site	SSOW#:			

Preservation Codes

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note
			Preservation Code:										
SS01 (890-2247-1)	4/25/22	15 50 Mountain		Solid			X	X	X	X	X	1	
SS02 (890-2247-2)	4/25/22	15 55 Mountain		Solid			X	X	X	X	X	1	

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

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Clue Culp 4.27.20			Letricia R	4/28/22 10:20	
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks.
		1.5/1.3 -.2 IR9

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2247-1
SDG Number: 03E1558036

Login Number: 2247
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: 890-2247-1
SDG Number: 03E1558036

Login Number: 2247
List Number: 2
Creator: Rodriguez, Leticia

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

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-2248-1
Laboratory Sample Delivery Group: 03E1558036
Client Project/Site: Corral Canyon 8-32 121H

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

Attn: Kalei Jennings

JKramer

Authorized for release by:
5/3/2022 9:23:20 AM

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

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

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

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Laboratory Job ID: 890-2248-1
SDG: 03E1558036

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-2248-1
Project/Site: Corral Canyon 8-32 121H SDG: 03E1558036

Qualifiers

GC VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

HPLC/IC

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

Glossary

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

Case Narrative

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2248-1
SDG: 03E1558036

Job ID: 890-2248-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2248-1

Receipt
The samples were received on 4/27/2022 8:21 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C

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

GC Semi VOA
Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-24405 and analytical batch 880-24563 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: The laboratory control sample (LCS) associated with preparation batch 880-24405 and analytical batch 880-24563 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS03 (890-2248-1), SS06 (890-2248-4), (890-2244-A-21-B MS) and (890-2244-A-21-C MSD). Evidence of matrix interferences is not obvious.

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

HPLC/IC
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 121H

Job ID: 890-2248-1
SDG: 03E1558036

Client Sample ID: SS03

Date Collected: 04/25/22 16:00
Date Received: 04/27/22 08:21
Sample Depth: 0.5

Lab Sample ID: 890-2248-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:00	05/02/22 18:50	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:00	05/02/22 18:50	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:00	05/02/22 18:50	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/02/22 08:00	05/02/22 18:50	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:00	05/02/22 18:50	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/02/22 08:00	05/02/22 18:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*70 - 130*	*05/02/22 08:00*	*05/02/22 18:50*	*1*
1,4-Difluorobenzene (Surr)	*85*		*70 - 130*	*05/02/22 08:00*	*05/02/22 18:50*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/02/22 21:55	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**69.3**		50.0		mg/Kg			05/02/22 11:24	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		04/28/22 11:23	05/01/22 04:44	1
Diesel Range Organics (Over C10-C28)	**69.3**		50.0		mg/Kg		04/28/22 11:23	05/01/22 04:44	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/28/22 11:23	05/01/22 04:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*77*		*70 - 130*	*04/28/22 11:23*	*05/01/22 04:44*	*1*
o-Terphenyl	*68*	*S1-*	*70 - 130*	*04/28/22 11:23*	*05/01/22 04:44*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**50.8**		5.05		mg/Kg			05/01/22 19:36	1

Client Sample ID: SS04

Date Collected: 04/25/22 16:05
Date Received: 04/27/22 08:21
Sample Depth: 0.5

Lab Sample ID: 890-2248-2
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:00	05/02/22 19:10	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:00	05/02/22 19:10	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:00	05/02/22 19:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/02/22 08:00	05/02/22 19:10	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:00	05/02/22 19:10	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/02/22 08:00	05/02/22 19:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*05/02/22 08:00*	*05/02/22 19:10*	*1*

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Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2248-1
SDG: 03E1558036

Client Sample ID: SS04

Date Collected: 04/25/22 16:05
Date Received: 04/27/22 08:21
Sample Depth: 0.5

Lab Sample ID: 890-2248-2
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*87*		*70 - 130*	*05/02/22 08:00*	*05/02/22 19:10*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			05/02/22 21:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			05/02/22 11:24	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		04/28/22 11:23	05/01/22 05:04	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0	mg/Kg		04/28/22 11:23	05/01/22 05:04	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0	mg/Kg		04/28/22 11:23	05/01/22 05:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*04/28/22 11:23*	*05/01/22 05:04*	*1*
o-Terphenyl	*74*		*70 - 130*	*04/28/22 11:23*	*05/01/22 05:04*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**20.3**		4.99	mg/Kg			05/01/22 19:45	1

Client Sample ID: SS05

Date Collected: 04/25/22 16:10
Date Received: 04/27/22 08:21
Sample Depth: 0.5

Lab Sample ID: 890-2248-3
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		05/02/22 08:00	05/02/22 19:31	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/02/22 08:00	05/02/22 19:31	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/02/22 08:00	05/02/22 19:31	1
m-Xylene & p-Xylene	<0.00399	U	0.00399	mg/Kg		05/02/22 08:00	05/02/22 19:31	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/02/22 08:00	05/02/22 19:31	1
Xylenes, Total	<0.00399	U	0.00399	mg/Kg		05/02/22 08:00	05/02/22 19:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*70 - 130*	*05/02/22 08:00*	*05/02/22 19:31*	*1*
1,4-Difluorobenzene (Surr)	*83*		*70 - 130*	*05/02/22 08:00*	*05/02/22 19:31*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399	mg/Kg			05/02/22 21:55	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	mg/Kg			05/02/22 11:24	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2248-1
SDG: 03E1558036

Client Sample ID: SS05

Date Collected: 04/25/22 16:10
Date Received: 04/27/22 08:21
Sample Depth: 0.5

Lab Sample ID: 890-2248-3

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	49.9		mg/Kg		04/28/22 11:23	05/01/22 05:24	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/28/22 11:23	05/01/22 05:24	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/28/22 11:23	05/01/22 05:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*94*		*70 - 130*	*04/28/22 11:23*	*05/01/22 05:24*	*1*
o-Terphenyl	*90*		*70 - 130*	*04/28/22 11:23*	*05/01/22 05:24*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**15.9**		4.98		mg/Kg			05/01/22 19:54	1

Client Sample ID: SS06

Date Collected: 04/25/22 16:15
Date Received: 04/27/22 08:21
Sample Depth: 0.5

Lab Sample ID: 890-2248-4

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:00	05/02/22 19:51	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:00	05/02/22 19:51	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:00	05/02/22 19:51	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/02/22 08:00	05/02/22 19:51	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/02/22 08:00	05/02/22 19:51	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/02/22 08:00	05/02/22 19:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*90*		*70 - 130*	*05/02/22 08:00*	*05/02/22 19:51*	*1*
1,4-Difluorobenzene (Surr)	*82*		*70 - 130*	*05/02/22 08:00*	*05/02/22 19:51*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/02/22 21:55	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/02/22 11:24	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		04/28/22 11:23	05/01/22 05:45	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/28/22 11:23	05/01/22 05:45	1
Oll Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/28/22 11:23	05/01/22 05:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*72*		*70 - 130*	*04/28/22 11:23*	*05/01/22 05:45*	*1*
o-Terphenyl	*65*	*S1-*	*70 - 130*	*04/28/22 11:23*	*05/01/22 05:45*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2248-1
SDG: 03E1558036

Client Sample ID: SS06
Date Collected: 04/25/22 16:15
Date Received: 04/27/22 08:21
Sample Depth: 0.5

Lab Sample ID: 890-2248-4
Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	14.7		4.99		mg/Kg			05/01/22 20:03	1

Surrogate Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2248-1
SDG: 03E1558036

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)
890-2248-1	SS03	101	85
890-2248-2	SS04	104	87
890-2248-3	SS05	95	83
890-2248-4	SS06	90	82
890-2261-A-1-B MS	Matrix Spike	109	96
890-2261-A-1-C MSD	Matrix Spike Duplicate	112	95
LCS 880-24437/1-A	Lab Control Sample	110	98
LCSD 880-24437/2-A	Lab Control Sample Dup	109	96
MB 880-24437/5-B	Method Blank	99	90

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)
890-2244-A-21-B MS	Matrix Spike	82	62 S1-
890-2244-A-21-C MSD	Matrix Spike Duplicate	73	57 S1-
890-2248-1	SS03	77	68 S1-
890-2248-2	SS04	78	74
890-2248-3	SS05	94	90
890-2248-4	SS06	72	65 S1-
LCS 880-24405/2-A	Lab Control Sample	91	79
LCSD 880-24405/3-A	Lab Control Sample Dup	104	100
MB 880-24405/1-A	Method Blank	89	87

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2248-1
SDG: 03E1558036

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-24437/5-B
Matrix: Solid
Analysis Batch: 24636

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24437

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 13:04	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 13:04	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 13:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/02/22 08:00	05/02/22 13:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/02/22 08:00	05/02/22 13:04	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/02/22 08:00	05/02/22 13:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*05/02/22 08:00*	*05/02/22 13:04*	*1*
1,4-Difluorobenzene (Surr)	*90*		*70 - 130*	*05/02/22 08:00*	*05/02/22 13:04*	*1*

Lab Sample ID: LCS 880-24437/1-A
Matrix: Solid
Analysis Batch: 24636

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24437

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.08579		mg/Kg		86	70 - 130		
Toluene			0.100	0.09000		mg/Kg		90	70 - 130		
Ethylbenzene			0.100	0.09801		mg/Kg		98	70 - 130		
m-Xylene & p-Xylene			0.200	0.1980		mg/Kg		99	70 - 130		
o-Xylene			0.100	0.1002		mg/Kg		100	70 - 130		

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

Lab Sample ID: LCSD 880-24437/2-A
Matrix: Solid
Analysis Batch: 24636

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 24437

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.08259		mg/Kg		83	70 - 130	4	35
Toluene			0.100	0.08659		mg/Kg		87	70 - 130	4	35
Ethylbenzene			0.100	0.09481		mg/Kg		95	70 - 130	3	35
m-Xylene & p-Xylene			0.200	0.1917		mg/Kg		96	70 - 130	3	35
o-Xylene			0.100	0.09736		mg/Kg		97	70 - 130	3	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: 890-2261-A-1-B MS
Matrix: Solid
Analysis Batch: 24636

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 24437

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.0998	0.07878		mg/Kg		79	70 - 130		
Toluene	<0.00200	U	0.0998	0.08341		mg/Kg		84	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2248-1
SDG: 03E1558036

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

Lab Sample ID: 890-2261-A-1-B MS
Matrix: Solid
Analysis Batch: 24636

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 24437

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U	0.0998	0.09128		mg/Kg		91	70 - 130
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1841		mg/Kg		92	70 - 130
o-Xylene	<0.00200	U	0.0998	0.09273		mg/Kg		93	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*

Lab Sample ID: 890-2261-A-1-C MSD
Matrix: Solid
Analysis Batch: 24636

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 24437

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0996	0.07642		mg/Kg		77	70 - 130	3	35
Toluene	<0.00200	U	0.0996	0.08325		mg/Kg		84	70 - 130	0	35
Ethylbenzene	<0.00200	U	0.0996	0.09260		mg/Kg		93	70 - 130	1	35
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1875		mg/Kg		94	70 - 130	2	35
o-Xylene	<0.00200	U	0.0996	0.09430		mg/Kg		95	70 - 130	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*
1,4-Difluorobenzene (Surr)	*95*		*70 - 130*

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

Lab Sample ID: MB 880-24405/1-A
Matrix: Solid
Analysis Batch: 24563

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 24405

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/28/22 11:23	04/30/22 21:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/28/22 11:23	04/30/22 21:38	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/28/22 11:23	04/30/22 21:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*89*		*70 - 130*	*04/28/22 11:23*	*04/30/22 21:38*	*1*
o-Terphenyl	*87*		*70 - 130*	*04/28/22 11:23*	*04/30/22 21:38*	*1*

Lab Sample ID: LCS 880-24405/2-A
Matrix: Solid
Analysis Batch: 24563

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24405

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	687.7	*-	mg/Kg		69	70 - 130
Diesel Range Organics (Over C10-C28)			1000	839.1		mg/Kg		84	70 - 130

Eurofins Carlsbad

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2248-1
SDG: 03E1558036

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

Lab Sample ID: LCS 880-24405/2-A
Matrix: Solid
Analysis Batch: 24563

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 24405

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	91		70 - 130
o-Terphenyl	79		70 - 130

Lab Sample ID: LCSD 880-24405/3-A
Matrix: Solid
Analysis Batch: 24563

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 24405

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	598.1	*-	mg/Kg		60	70 - 130	14	20
Diesel Range Organics (Over C10-C28)			1000	903.2		mg/Kg		90	70 - 130	7	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	104		70 - 130
o-Terphenyl	100		70 - 130

Lab Sample ID: 890-2244-A-21-B MS
Matrix: Solid
Analysis Batch: 24563

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 24405

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 *-	999	771.3		mg/Kg		77	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	773.5		mg/Kg		77	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	82		70 - 130
o-Terphenyl	62	S1-	70 - 130

Lab Sample ID: 890-2244-A-21-C MSD
Matrix: Solid
Analysis Batch: 24563

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 24405

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *-	999	880.9		mg/Kg		88	70 - 130	13	20
Diesel Range Organics (Over C10-C28)	<49.9	U F1	999	711.8		mg/Kg		71	70 - 130	8	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	73		70 - 130
o-Terphenyl	57	S1-	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2248-1
SDG: 03E1558036

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-24410/1-A
Matrix: Solid
Analysis Batch: 24592

Client Sample ID: Method Blank
Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/01/22 14:12	1

Lab Sample ID: LCS 880-24410/2-A
Matrix: Solid
Analysis Batch: 24592

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	232.0		mg/Kg		93	90 - 110		

Lab Sample ID: LCSD 880-24410/3-A
Matrix: Solid
Analysis Batch: 24592

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	225.8		mg/Kg		90	90 - 110	3	20

Lab Sample ID: 890-2244-A-31-D MS
Matrix: Solid
Analysis Batch: 24592

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	11.4		250	277.4		mg/Kg		107	90 - 110		

Lab Sample ID: 890-2244-A-31-E MSD
Matrix: Solid
Analysis Batch: 24592

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	11.4		250	258.1		mg/Kg		99	90 - 110	7	20

QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2248-1
SDG: 03E1558036

GC VOA

Prep Batch: 24437

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2248-1	SS03	Total/NA	Solid	5035	
890-2248-2	SS04	Total/NA	Solid	5035	
890-2248-3	SS05	Total/NA	Solid	5035	
890-2248-4	SS06	Total/NA	Solid	5035	
MB 880-24437/5-B	Method Blank	Total/NA	Solid	5035	
LCS 880-24437/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-24437/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2261-A-1-B MS	Matrix Spike	Total/NA	Solid	5035	
890-2261-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 24636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2248-1	SS03	Total/NA	Solid	8021B	24437
890-2248-2	SS04	Total/NA	Solid	8021B	24437
890-2248-3	SS05	Total/NA	Solid	8021B	24437
890-2248-4	SS06	Total/NA	Solid	8021B	24437
MB 880-24437/5-B	Method Blank	Total/NA	Solid	8021B	24437
LCS 880-24437/1-A	Lab Control Sample	Total/NA	Solid	8021B	24437
LCSD 880-24437/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	24437
890-2261-A-1-B MS	Matrix Spike	Total/NA	Solid	8021B	24437
890-2261-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	24437

Analysis Batch: 24694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2248-1	SS03	Total/NA	Solid	Total BTEX	
890-2248-2	SS04	Total/NA	Solid	Total BTEX	
890-2248-3	SS05	Total/NA	Solid	Total BTEX	
890-2248-4	SS06	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 24405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2248-1	SS03	Total/NA	Solid	8015NM Prep	
890-2248-2	SS04	Total/NA	Solid	8015NM Prep	
890-2248-3	SS05	Total/NA	Solid	8015NM Prep	
890-2248-4	SS06	Total/NA	Solid	8015NM Prep	
MB 880-24405/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-24405/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-24405/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2244-A-21-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2244-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 24563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2248-1	SS03	Total/NA	Solid	8015B NM	24405
890-2248-2	SS04	Total/NA	Solid	8015B NM	24405
890-2248-3	SS05	Total/NA	Solid	8015B NM	24405
890-2248-4	SS06	Total/NA	Solid	8015B NM	24405
MB 880-24405/1-A	Method Blank	Total/NA	Solid	8015B NM	24405
LCS 880-24405/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	24405

QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2248-1
SDG: 03E1558036

GC Semi VOA (Continued)

Analysis Batch: 24563 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-24405/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	24405
890-2244-A-21-B MS	Matrix Spike	Total/NA	Solid	8015B NM	24405
890-2244-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	24405

Analysis Batch: 24641

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2248-1	SS03	Total/NA	Solid	8015 NM	
890-2248-2	SS04	Total/NA	Solid	8015 NM	
890-2248-3	SS05	Total/NA	Solid	8015 NM	
890-2248-4	SS06	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 24410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2248-1	SS03	Soluble	Solid	DI Leach	
890-2248-2	SS04	Soluble	Solid	DI Leach	
890-2248-3	SS05	Soluble	Solid	DI Leach	
890-2248-4	SS06	Soluble	Solid	DI Leach	
MB 880-24410/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-24410/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-24410/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2244-A-31-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2244-A-31-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 24592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2248-1	SS03	Soluble	Solid	300.0	24410
890-2248-2	SS04	Soluble	Solid	300.0	24410
890-2248-3	SS05	Soluble	Solid	300.0	24410
890-2248-4	SS06	Soluble	Solid	300.0	24410
MB 880-24410/1-A	Method Blank	Soluble	Solid	300.0	24410
LCS 880-24410/2-A	Lab Control Sample	Soluble	Solid	300.0	24410
LCSD 880-24410/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	24410
890-2244-A-31-D MS	Matrix Spike	Soluble	Solid	300.0	24410
890-2244-A-31-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	24410

Lab Chronicle

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2248-1
SDG: 03E1558036

Client Sample ID: SS03

Lab Sample ID: 890-2248-1
Matrix: Solid
Date Collected: 04/25/22 16:00
Date Received: 04/27/22 08:21

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	24437	05/02/22 08:00	MR	XEN MID
Total/NA	Analysis	8021B		1			24636	05/02/22 18:50	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24694	05/02/22 21:55	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24641	05/02/22 11:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	24405	04/28/22 11:23	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24563	05/01/22 04:44	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	24410	04/28/22 11:35	SC	XEN MID
Soluble	Analysis	300.0		1			24592	05/01/22 19:36	CH	XEN MID

Client Sample ID: SS04

Lab Sample ID: 890-2248-2
Matrix: Solid
Date Collected: 04/25/22 16:05
Date Received: 04/27/22 08:21

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	24437	05/02/22 08:00	MR	XEN MID
Total/NA	Analysis	8021B		1			24636	05/02/22 19:10	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24694	05/02/22 21:55	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24641	05/02/22 11:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	24405	04/28/22 11:23	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24563	05/01/22 05:04	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	24410	04/28/22 11:35	SC	XEN MID
Soluble	Analysis	300.0		1			24592	05/01/22 19:45	CH	XEN MID

Client Sample ID: SS05

Lab Sample ID: 890-2248-3
Matrix: Solid
Date Collected: 04/25/22 16:10
Date Received: 04/27/22 08:21

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	24437	05/02/22 08:00	MR	XEN MID
Total/NA	Analysis	8021B		1			24636	05/02/22 19:31	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24694	05/02/22 21:55	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			24641	05/02/22 11:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	24405	04/28/22 11:23	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24563	05/01/22 05:24	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	24410	04/28/22 11:35	SC	XEN MID
Soluble	Analysis	300.0		1			24592	05/01/22 19:54	CH	XEN MID

Client Sample ID: SS06

Lab Sample ID: 890-2248-4
Matrix: Solid
Date Collected: 04/25/22 16:15
Date Received: 04/27/22 08:21

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	24437	05/02/22 08:00	MR	XEN MID
Total/NA	Analysis	8021B		1			24636	05/02/22 19:51	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24694	05/02/22 21:55	AJ	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2248-1
SDG: 03E1558036

Client Sample ID: SS06

Date Collected: 04/25/22 16:15
Date Received: 04/27/22 08:21

Lab Sample ID: 890-2248-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			24641	05/02/22 11:24	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	24405	04/28/22 11:23	DM	XEN MID
Total/NA	Analysis	8015B NM		1			24563	05/01/22 05:45	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	24410	04/28/22 11:35	SC	XEN MID
Soluble	Analysis	300.0		1			24592	05/01/22 20:03	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 121H

Job ID: 890-2248-1
SDG: 03E1558036

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 121H

Job ID: 890-2248-1
SDG: 03E1558036

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 121H

Job ID: 890-2248-1
SDG: 03E1558036

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2248-1	SS03	Solid	04/25/22 16:00	04/27/22 08:21	0.5
890-2248-2	SS04	Solid	04/25/22 16:05	04/27/22 08:21	0.5
890-2248-3	SS05	Solid	04/25/22 16:10	04/27/22 08:21	0.5
890-2248-4	SS06	Solid	04/25/22 16:15	04/27/22 08:21	0.5

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Chain of Custody

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

Work Order No: _____

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

Work Order Comments

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

Project Name:	Corral Canyon 8-32 121H	Turn Around	☑ Routine ☐ Rush
Project Number:	03E1558036	Due Date:	
Project Location:		TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Ali Castro		
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	FM-007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	1.0	
Total Containers:		Corrected Temperature:	.8	

ANALYSIS REQUEST

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	BTEX (EPA 8021)	TPH (EPA 8015)	Chloride (EPA 300)	Sample Comments
SS03	S	4/25/22	1600	0.5		1	X	X	X	Incident #
SS04			1605			1	X	X	X	NAPP2136455950
SS05			1610			1	X	X	X	AFE
SS06			1615			1	X	X	X	DD.2019.041602.CAP.CMP.01

890-2248 Chain of Custody

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1	AC		4/26/22 1730	2		4/27/22 800
3	N. Etter		4/27/22 8:21	4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

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

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler	Lab PM: Kramer Jessica	Carrier Tracking No(s)	COC No: 890-730 1
Client Contact: Shipping/Receiving	Phone	E-Mail: Jessica Kramer@et.eurofinsus com	State of Origin: New Mexico	Page: Page 1 of 1
Company: Eurofins Environment Testing South Centr		Accreditations Required (See note): NELAP - Texas		Job #: 890-2248-1
Address: 1211 W Florida Ave	Due Date Requested: 5/3/2022			
City: Midland	TAT Requested (days):			
State Zip: TX 79701				
Phone: 432-704-5440(Tel)	PO #:			
Email	WO #:			
Project Name: Corral Canyon 8-32 121H	Project #: 89000093			
Site	SSOW#:			

Analysis Requested

Preservation Codes

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

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8015MOD_NM/8015NM_S_Prep (MOD) Full TPH	8015MOD_Calc	300_ORGFM_28D/DI_LEACH Chloride	8021B/5035FP_Calc (MOD) BTEX	Total_BTEX_GCV	Total Number of containers	Special Instructions/Note
			Preservation Code:										
SS03 (890-2248-1)	4/25/22	16 00 Mountain		Solid			X	X	X	X	X	1	
SS04 (890-2248-2)	4/25/22	16 05 Mountain		Solid			X	X	X	X	X	1	
SS05 (890-2248-3)	4/25/22	16 10 Mountain		Solid			X	X	X	X	X	1	
SS06 (890-2248-4)	4/25/22	16 15 Mountain		Solid			X	X	X	X	X	1	

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

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date	Time	Method of Shipment:

Relinquished by: Clee Cup 4.27.22	Date/Time	Company	Received by:	Date/Time	Company
Relinquished by:	Date/Time.	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time	Company	Received by:	Date/Time	Company

Custody Seals Intact. Δ Yes Δ No	Custody Seal No	Cooler Temperature(s) °C and Other Remarks. 1.5/13 -.2 IR8

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2248-1
SDG Number: 03E1558036

Login Number: 2248
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: 890-2248-1
SDG Number: 03E1558036

Login Number: 2248
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 04/28/22 10:31 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-2317-1
Laboratory Sample Delivery Group: 03E1558058
Client Project/Site: Corral Canyon 8-32 121H

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

Attn: Tacoma Morrissey

JKramer

Authorized for release by:
5/24/2022 11:20:19 AM

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

LINKS

Review your project results through my EOL

Have a Question? Ask The Expert

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 121H

Laboratory Job ID: 890-2317-1
SDG: 03E1558058

Table of Contents

Definitions/Glossary

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2317-1
SDG: 03E1558058

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

Qualifier	Qualifier Description
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 8-32 121H

Job ID: 890-2317-1
SDG: 03E1558058

Job ID: 890-2317-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2317-1

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
Method 8021B: Surrogate recovery for the following sample was outside control limits: SS01A (890-2317-9). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA
Method 8015MOD_NM: Surrogate recovery for the following samples were outside control limits: SS01A (890-2317-9) and SS02A (890-2317-10). Evidence of matrix interferences is not obvious.

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

HPLC/IC
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 121H

Job ID: 890-2317-1
SDG: 03E1558058

Client Sample ID: SS01A

Date Collected: 05/16/22 09:30
Date Received: 05/18/22 12:39
Sample Depth: 2

Lab Sample ID: 890-2317-9
Matrix: Solid

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 09:25	05/21/22 08:49	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/20/22 09:25	05/21/22 08:49	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/20/22 09:25	05/21/22 08:49	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/20/22 09:25	05/21/22 08:49	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/20/22 09:25	05/21/22 08:49	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/20/22 09:25	05/21/22 08:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*135*	*S1+*	*70 - 130*	*05/20/22 09:25*	*05/21/22 08:49*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*05/20/22 09:25*	*05/21/22 08:49*	*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	<50.0	U	50.0		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	<50.0	U	50.0		mg/Kg		05/20/22 10:11	05/20/22 16:31	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/20/22 10:11	05/20/22 16:31	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/20/22 10:11	05/20/22 16:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*133*	*S1+*	*70 - 130*	*05/20/22 10:11*	*05/20/22 16:31*	*1*
o-Terphenyl	*146*	*S1+*	*70 - 130*	*05/20/22 10:11*	*05/20/22 16:31*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**201**		4.99		mg/Kg			05/23/22 19:44	1

Client Sample ID: SS02A

Date Collected: 05/16/22 09:50
Date Received: 05/18/22 12:39
Sample Depth: 2

Lab Sample ID: 890-2317-10
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/20/22 09:25	05/21/22 09:16	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/20/22 09:25	05/21/22 09:16	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/20/22 09:25	05/21/22 09:16	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		05/20/22 09:25	05/21/22 09:16	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/20/22 09:25	05/21/22 09:16	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/20/22 09:25	05/21/22 09:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*70 - 130*	*05/20/22 09:25*	*05/21/22 09:16*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2317-1
SDG: 03E1558058

Client Sample ID: SS02A
Date Collected: 05/16/22 09:50
Date Received: 05/18/22 12:39
Sample Depth: 2

Lab Sample ID: 890-2317-10
Matrix: Solid

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*05/20/22 09:25*	*05/21/22 09:16*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396	mg/Kg			05/23/22 11:27	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9	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	<49.9	U	49.9	mg/Kg		05/20/22 10:11	05/20/22 16:54	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9	mg/Kg		05/20/22 10:11	05/20/22 16:54	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9	mg/Kg		05/20/22 10:11	05/20/22 16:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*130*		*70 - 130*	*05/20/22 10:11*	*05/20/22 16:54*	*1*
o-Terphenyl	*144*	*S1+*	*70 - 130*	*05/20/22 10:11*	*05/20/22 16:54*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**729**		4.98	mg/Kg			05/23/22 19:53	1

Client Sample ID: EX01
Date Collected: 05/17/22 09:20
Date Received: 05/18/22 12:39
Sample Depth: 1

Lab Sample ID: 890-2317-11
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		05/20/22 09:25	05/21/22 09:43	1
Toluene	<0.00200	U	0.00200	mg/Kg		05/20/22 09:25	05/21/22 09:43	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		05/20/22 09:25	05/21/22 09:43	1
m-Xylene & p-Xylene	<0.00400	U	0.00400	mg/Kg		05/20/22 09:25	05/21/22 09:43	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		05/20/22 09:25	05/21/22 09:43	1
Xylenes, Total	<0.00400	U	0.00400	mg/Kg		05/20/22 09:25	05/21/22 09:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*129*		*70 - 130*	*05/20/22 09:25*	*05/21/22 09:43*	*1*
1,4-Difluorobenzene (Surr)	*97*		*70 - 130*	*05/20/22 09:25*	*05/21/22 09:43*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400	mg/Kg			05/23/22 11:27	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0	mg/Kg			05/23/22 09:09	1

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2317-1
SDG: 03E1558058

Client Sample ID: EX01

Date Collected: 05/17/22 09:20
Date Received: 05/18/22 12:39
Sample Depth: 1

Lab Sample ID: 890-2317-11

Matrix: Solid

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/20/22 10:11	05/20/22 18:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/20/22 10:11	05/20/22 18:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/20/22 10:11	05/20/22 18:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*98*		*70 - 130*	*05/20/22 10:11*	*05/20/22 18:08*	*1*
o-Terphenyl	*104*		*70 - 130*	*05/20/22 10:11*	*05/20/22 18:08*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**151**		4.97		mg/Kg			05/23/22 20:02	1

Client Sample ID: EX02

Date Collected: 05/17/22 11:30
Date Received: 05/18/22 12:39
Sample Depth: 1

Lab Sample ID: 890-2317-12

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/20/22 09:25	05/21/22 10:10	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/20/22 09:25	05/21/22 10:10	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/20/22 09:25	05/21/22 10:10	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/20/22 09:25	05/21/22 10:10	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/20/22 09:25	05/21/22 10:10	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/20/22 09:25	05/21/22 10:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*121*		*70 - 130*	*05/20/22 09:25*	*05/21/22 10:10*	*1*
1,4-Difluorobenzene (Surr)	*96*		*70 - 130*	*05/20/22 09:25*	*05/21/22 10:10*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			05/23/22 11:27	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		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	<49.9	U	49.9		mg/Kg		05/20/22 10:11	05/20/22 18:30	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/20/22 10:11	05/20/22 18:30	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/20/22 10:11	05/20/22 18:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*110*		*70 - 130*	*05/20/22 10:11*	*05/20/22 18:30*	*1*
o-Terphenyl	*117*		*70 - 130*	*05/20/22 10:11*	*05/20/22 18:30*	*1*

Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2317-1
SDG: 03E1558058

Client Sample ID: EX02

Date Collected: 05/17/22 11:30
Date Received: 05/18/22 12:39
Sample Depth: 1

Lab Sample ID: 890-2317-12

Matrix: Solid

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	148		5.00		mg/Kg			05/23/22 20:30	1

Surrogate Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2317-1
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 (70-130)	DFBZ1 (70-130)
890-2317-9	SS01A	135 S1+	96
890-2317-10	SS02A	120	97
890-2317-11	EX01	129	97
890-2317-12	EX02	121	96

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)
890-2317-9	SS01A	133 S1+	146 S1+
890-2317-10	SS02A	130	144 S1+
890-2317-11	EX01	98	104
890-2317-12	EX02	110	117

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2317-1
SDG: 03E1558058

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	RPD Limit
Chloride			250	237.4		mg/Kg		95	90 - 110	0	20

Lab Sample ID: 890-2317-11 MS
Matrix: Solid
Analysis Batch: 26074

Client Sample ID: EX01
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: 890-2317-11 MSD
Matrix: Solid
Analysis Batch: 26074

Client Sample ID: EX01
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

Lab Sample ID: 890-2317-A-1-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	447		248	674.7		mg/Kg		92	90 - 110		

Lab Sample ID: 890-2317-A-1-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	447		248	675.5		mg/Kg		92	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2317-1
SDG: 03E1558058

GC VOA

Analysis Batch: 25945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2317-9	SS01A	Total/NA	Solid	8021B	25961
890-2317-10	SS02A	Total/NA	Solid	8021B	25961
890-2317-11	EX01	Total/NA	Solid	8021B	25961
890-2317-12	EX02	Total/NA	Solid	8021B	25961

Prep Batch: 25961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2317-9	SS01A	Total/NA	Solid	5035	
890-2317-10	SS02A	Total/NA	Solid	5035	
890-2317-11	EX01	Total/NA	Solid	5035	
890-2317-12	EX02	Total/NA	Solid	5035	

Analysis Batch: 26093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2317-9	SS01A	Total/NA	Solid	Total BTEX	
890-2317-10	SS02A	Total/NA	Solid	Total BTEX	
890-2317-11	EX01	Total/NA	Solid	Total BTEX	
890-2317-12	EX02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Prep Batch: 25868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2317-9	SS01A	Total/NA	Solid	8015NM Prep	
890-2317-10	SS02A	Total/NA	Solid	8015NM Prep	
890-2317-11	EX01	Total/NA	Solid	8015NM Prep	
890-2317-12	EX02	Total/NA	Solid	8015NM Prep	

Analysis Batch: 25938

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2317-9	SS01A	Total/NA	Solid	8015B NM	25868
890-2317-10	SS02A	Total/NA	Solid	8015B NM	25868
890-2317-11	EX01	Total/NA	Solid	8015B NM	25868
890-2317-12	EX02	Total/NA	Solid	8015B NM	25868

Analysis Batch: 26032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2317-9	SS01A	Total/NA	Solid	8015 NM	
890-2317-10	SS02A	Total/NA	Solid	8015 NM	
890-2317-11	EX01	Total/NA	Solid	8015 NM	
890-2317-12	EX02	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 25905

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2317-9	SS01A	Soluble	Solid	DI Leach	
890-2317-10	SS02A	Soluble	Solid	DI Leach	
890-2317-11	EX01	Soluble	Solid	DI Leach	
890-2317-12	EX02	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	

QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2317-1
SDG: 03E1558058

HPLC/IC (Continued)

Leach Batch: 25905 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 880-25905/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2317-11 MS	EX01	Soluble	Solid	DI Leach	
890-2317-11 MSD	EX01	Soluble	Solid	DI Leach	
890-2317-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2317-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 26074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2317-9	SS01A	Soluble	Solid	300.0	25905
890-2317-10	SS02A	Soluble	Solid	300.0	25905
890-2317-11	EX01	Soluble	Solid	300.0	25905
890-2317-12	EX02	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
890-2317-11 MS	EX01	Soluble	Solid	300.0	25905
890-2317-11 MSD	EX01	Soluble	Solid	300.0	25905
890-2317-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	25905
890-2317-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	25905

Lab Chronicle

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2317-1
SDG: 03E1558058

Client Sample ID: SS01A
Date Collected: 05/16/22 09:30
Date Received: 05/18/22 12:39

Lab Sample ID: 890-2317-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	25961	05/20/22 09:25	MR	XEN MID
Total/NA	Analysis	8021B		1			25945	05/21/22 08:49	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			10.01 g	10 mL	25868	05/20/22 10:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25938	05/20/22 16:31	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	25905	05/19/22 12:41	CH	XEN MID
Soluble	Analysis	300.0		1			26074	05/23/22 19:44	CH	XEN MID

Client Sample ID: SS02A
Date Collected: 05/16/22 09:50
Date Received: 05/18/22 12:39

Lab Sample ID: 890-2317-10
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	25961	05/20/22 09:25	MR	XEN MID
Total/NA	Analysis	8021B		1			25945	05/21/22 09:16	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			10.02 g	10 mL	25868	05/20/22 10:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25938	05/20/22 16:54	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	25905	05/19/22 12:41	CH	XEN MID
Soluble	Analysis	300.0		1			26074	05/23/22 19:53	CH	XEN MID

Client Sample ID: EX01
Date Collected: 05/17/22 09:20
Date Received: 05/18/22 12:39

Lab Sample ID: 890-2317-11
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	25961	05/20/22 09:25	MR	XEN MID
Total/NA	Analysis	8021B		1			25945	05/21/22 09:43	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			10.01 g	10 mL	25868	05/20/22 10:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25938	05/20/22 18:08	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	25905	05/19/22 12:41	CH	XEN MID
Soluble	Analysis	300.0		1			26074	05/23/22 20:02	CH	XEN MID

Client Sample ID: EX02
Date Collected: 05/17/22 11:30
Date Received: 05/18/22 12:39

Lab Sample ID: 890-2317-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	25961	05/20/22 09:25	MR	XEN MID
Total/NA	Analysis	8021B		1			25945	05/21/22 10:10	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26093	05/23/22 11:27	SM	XEN MID

Lab Chronicle

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2317-1
SDG: 03E1558058

Client Sample ID: EX02
Date Collected: 05/17/22 11:30
Date Received: 05/18/22 12:39

Lab Sample ID: 890-2317-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			26032	05/23/22 09:09	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	25868	05/20/22 10:11	DM	XEN MID
Total/NA	Analysis	8015B NM		1			25938	05/20/22 18:30	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	25905	05/19/22 12:41	CH	XEN MID
Soluble	Analysis	300.0		1			26074	05/23/22 20:30	CH	XEN MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Corral Canyon 8-32 121H

Job ID: 890-2317-1
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	T104704400-21-22	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 121H

Job ID: 890-2317-1
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 121H

Job ID: 890-2317-1
SDG: 03E1558058

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2317-9	SS01A	Solid	05/16/22 09:30	05/18/22 12:39	2
890-2317-10	SS02A	Solid	05/16/22 09:50	05/18/22 12:39	2
890-2317-11	EX01	Solid	05/17/22 09:20	05/18/22 12:39	1
890-2317-12	EX02	Solid	05/17/22 11:30	05/18/22 12:39	1

8RO-2317

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Chain of Custody

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

Work Order No: 1

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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:	tmorrissey@ensolum.com

Work Order Comments

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

Project Name:	Corral Canyon 8-32 121H	**Turn Around**	
Project Number:	03E1558036	☑ Routine ☐ Rush	
Project Location:	32.14489, -104.01174	Due Date:	
Sampler's Name:	Eric Carroll	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

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

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters: CHLORIDES (EPA: 300.0)	Parameters: TPH (8015)	Parameters: BTEX (8021)	Sample Comments
SS01A	S	5/16/2022	9:30	2	G	1		x	x	x	Incident ID: NAPP2136455950
SS02A	S	5/16/2022	9:50	2	G	1		x	x	x	AFE:
EX01	S	5/17/2022	9:20	1	Comp	1		x	x	x	DD.2017.04602.CAP.CMP.01
EX02	S	5/17/2022	11:30	1	Comp	1		x	x	x	

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			2		
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2317-1
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: 890-2317-1
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	

ENSOLUM

APPENDIX E

NMOCD Notifications

From: Green, Garrett J
To: ocd.enviro@state.nm.us
Cc: DelawareSpills /SM; Aimee Cole
Subject: XTO - Sampling Notification (week of 5/16/22 - 5/20/22)
Date: Thursday, May 12, 2022 4:43:12 PM

[**EXTERNAL EMAIL**]

All,

XTO plans to complete final sampling activities at the following sites the week of May 16, 2022.

Monday
- Corral Canyon 8-32 Fed 121H / NAPP2136455950

Tuesday
- Corral Canyon 8-32 Fed 121H / NAPP2136455950

Wednesday
- Ross Draw 25 NW Battery/ NAPP2201444794
- PLU C1 Frac pond/ nAPP2207743395

Thursday
- PLU 25 BD Satellite/NAPP2201441915
- PLU C1 Frac pond/ nAPP2207743395

Friday
- PLU C1 Frac pond/ nAPP2207743395

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

ENSOLUM

APPENDIX F

SDS for Friction Reducer

PFP INDUSTRIES

SAFETY DATA SHEET

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

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

Product identifier

Product Name POLYglide Xcel-200

Other means of identification

Product Code(s) 10497

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use No information available

Uses advised against No information available

Details of the supplier of the safety data sheet

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

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

Emergency telephone number

Company Phone Number 281-371-2000

Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

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

Flammable liquids	Category 4

Hazards not otherwise classified (HNOC)
Not applicable

Label elements

Warning

Combustible liquid

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

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

Precautionary Statements - Response

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

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

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

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

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

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

4. FIRST AID MEASURES

Description of first aid measures

Inhalation Remove to fresh air.

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

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

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

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

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES

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

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

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

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

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

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

Environmental precautions

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

Methods and material for containment and cleaning up

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

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

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

7. HANDLING AND STORAGE

Precautions for safe handling

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

Conditions for safe storage, including any incompatibilities

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

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

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Skin and body protection No special protective equipment required.

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

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

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

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

Other Information

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

10. STABILITY AND REACTIVITY

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

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

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

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Numerical measures of toxicity

Acute toxicity

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

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

Component Information

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

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

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

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

Persistence and degradability No information available.

Bioaccumulation There is no data for this product.

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

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

Contaminated packaging Do not reuse empty containers.

14. TRANSPORT INFORMATION

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

15. REGULATORY INFORMATION

International Inventories

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

PICCS	Complies
AICS	Complies

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

US Federal Regulations

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

SARA 311/312 Hazard Categories

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

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

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

US State Regulations

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

U.S. State Right-to-Know Regulations

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

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

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

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

Issuing Date 01-Aug-2019

Revision Date 01-Aug-2019

Revision Note No information available.

Disclaimer

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End of Safety Data Sheet

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 115891

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 115891
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Approved.	8/16/2022