Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2215951900
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: _Garrett Green_____ Title: _Environmental Coordinator_____

Signature: __Garrett Green_____ Date: __08/31/2022_____

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

OCD Only

Received by: ___Jocelyn Harimon_____ Date: __08/31/2022___

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

Closure Approved by: ___Robert Hamlet_____ Date: 12/2/2022

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NAPP2215951900
District RP	
Facility ID	
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Release Notification

Responsible Party

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

Location of Release Source

Latitude 32.15372 Longitude -103.99930
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Corral Canyon Expansion Battery	Site Type Tank Battery
Date Release Discovered 06/02/2022	API# *(if applicable)*

Unit Letter	Section	Township	Range	County
P	05	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) 0.76	Volume Recovered (bbls) 0.00
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release	VRT high-leveled, causing fluid to release out flare and ignite. Flames self-extinguished upon hitting ground. A third-party contractor has been retained for remediation purposes.	

State of New Mexico
Oil Conservation Division

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

If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?
Yes, by Garrett Green to ocd.enviro@state.nm.us; Bratcher, Mike, EMNRD; Hamlet, Robert on Thursday, June 2, 2022 6:47 PM via email.

Initial Response

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

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

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

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

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

Printed Name: Garrett Green
Title: SSHE Coordinator
Signature: Garrett Green
Date: 06/08/2022
email: garret.green@exxonmobil.com
Telephone: 575-200-0729

OCD Only

Received by: Jocelyn Harimon
Date: 06/08/2022

Location:	Corral Canyon Expansion	
Spill Date:	6/2/2022	
Area 1		
Approximate Area =	2261.00	sq. ft.
Average Saturation (or depth) of spill =	0.75	inches
Average Porosity Factor =	0.03	
VOLUME OF LEAK		
Total Crude Oil =	0.76	bbls
Total Produced Water =	0.00	bbls
TOTAL VOLUME OF LEAK		
Total Crude Oil =	**0.76**	**bbls**
Total Produced Water =	**0.00**	**bbls**
TOTAL VOLUME RECOVERED		
Total Crude Oil =	**0.00**	**bbls**
Total Produced Water =	**0.00**	**bbls**

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2215951900
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Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	50-100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2215951900
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Printed Name: _Garrett Green_____ Title: _Environmental Coordinator_____

Signature:_____ Date: ____08/31/2022_____

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

OCD Only

Received by: ____Jocelyn Harimon_____ Date: __08/31/2022____

Incident ID	nAPP2215951900
District RP	
Facility ID	
Application ID	

Closure

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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

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Printed Name: _Garrett Green_____ Title: _Environmental Coordinator_____

Signature: __  _____ Date: __08/31/2022_____

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

OCD Only

Received by: ___Jocelyn Harimon_____ Date: __08/31/2022___

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

ENSOLUM

August 31, 2022

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

Re: Closure Request
Corral Canyon Expansion Battery
Incident Number NAPP2215951900
Eddy County, New Mexico

To Whom it May Concern:

Ensolum, LLC (Ensolum) on behalf of XTO Energy, Inc. (XTO), has prepared this Closure Request to document site assessment and soil sampling activities performed at the Corral Canyon Expansion Battery (Site). The purpose of the site assessment and soil sampling activities was to assess for the presence or absence of impacts to soil resulting from a small crude oil flare fire at the Site. Based on the site assessment activities and analytical results from the soil sampling event, XTO is submitting this Closure Request for Incident Number NAPP2215951900.

SITE DESCRIPTION AND RELEASE SUMMARY

The Site is located in in Unit P, Section 5, Township 25 South, Range 29 East, in Eddy County, New Mexico (32.15372° N, 103.99930°W) and is associated with oil and gas exploration and production operations on Federal Land managed by Bureau of Land Management (BLM).

On June 2, 2022, high levels of fluid in the vapor recovery tower caused 0.76 barrels (bbls) of crude oil to release out of the flare, which ignited and extinguished on the ground. There were no fluids to recover. XTO reported the release via email to the New Mexico Oil Conservation Division (NMOCD) on June 2, 2022 and submitted a Release Notification Form C-141 (Form C-141) on June 8, 2022. The release was assigned Incident Number NAPP2215951900.

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 between 50 feet below ground surface (bgs) and 100 feet 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-04324-POD 7, located approximately 0.21 miles south of the Site. The groundwater well has a reported depth to groundwater of 58.5 feet bgs and a total depth of 64 feet bgs. All wells used for depth to groundwater determination are presented on Figure 1. The referenced well records are included in Appendix A.

The closest continuously flowing or significant watercourse to the Site is a dry wash, located approximately 1,925 feet southeast of the Site. The Site is greater than 200 feet from a lakebed, sinkhole, or playa lake and greater than 300 feet from an occupied residence, school, hospital, institution, church, or wetland. The Site is greater than 1,000 feet to a freshwater well or spring and is not within a 100-year floodplain or overlying a subsurface mine. The Site is not underlain by unstable geology (medium potential karst designation area). Site receptors are identified on Figure 1.

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

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

SITE ASSESSMENT AND DELINEATION ACTIVITIES

On August 22, 2022, site assessment activities were conducted to evaluate the release extent based on information provided on the Form C-141 and visual observations. Eight preliminary soil samples (SS01 through SS04 and PH01 through PH04) were collected within and around the release extent from a depth of 0.5 feet bgs, to assess for the presence or absence of impacted soil. The preliminary soil samples were field screened for volatile organic compounds (VOCs) utilizing a calibrated photoionization detector (PID) and chloride Hach® chloride QuanTab® test strips. The release extent and preliminary soil sample locations were mapped utilizing a handheld Global Positioning System (GPS) unit and are depicted on Figure 2. Photographic documentation was completed during the Site visit and a photographic log is included in Appendix B.

Field screening results indicated no impacts to soil; however, surficial staining from the fire was scraped and removed from the Site. Following the preliminary soil sampling and scraping, additional delineation activities were conducted to confirm the absence of impacted soil in the subsurface. Potholes were advanced via track mounted backhoe within the release extent at the locations of preliminary soil samples PH01 through PH01. The potholes were advanced to a depth of 2 feet bgs. Discrete delineation soil samples PH01A through PH04A were collected from the potholes at a depth of 2 feet bgs. Soil from the potholes was field screened for VOCs and chloride utilizing a calibrated 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 delineation soil sample locations are depicted on Figure 2.

The preliminary and delineation 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

Laboratory analytical results for all preliminary soil samples and all delineation soil samples indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and provide lateral and vertical delineation to below the most stringent Table 1 Closure Criteria. Laboratory analytical results are summarized in Table 1 and the complete laboratory analytical reports are included as Appendix D.

CLOSURE REQUEST

Site assessment activities were conducted at the Site to assess for the presence or absence of impacted soil resulting from the June 2, 2022 crude oil flare fire. Laboratory analytical results for the soil samples collected within and around the release extent, indicated that benzene, BTEX, TPH-GRO/TPH-DRO, TPH, and chloride concentrations were compliant with the Site Closure Criteria and provided lateral and vertical delineation to below the most stringent Table 1 Closure Criteria. XTO removed the surficial staining from the fire and based on the soil sample analytical results, no further remediation was required. XTO respectfully requests closure for Incident Number NAPP2205254615.

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

Sincerely,
Ensolum, LLC

Tacoma Morrissey
Senior Geologist

Ashely Ager
Program Director, M.S., P.G.

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

Appendices:

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

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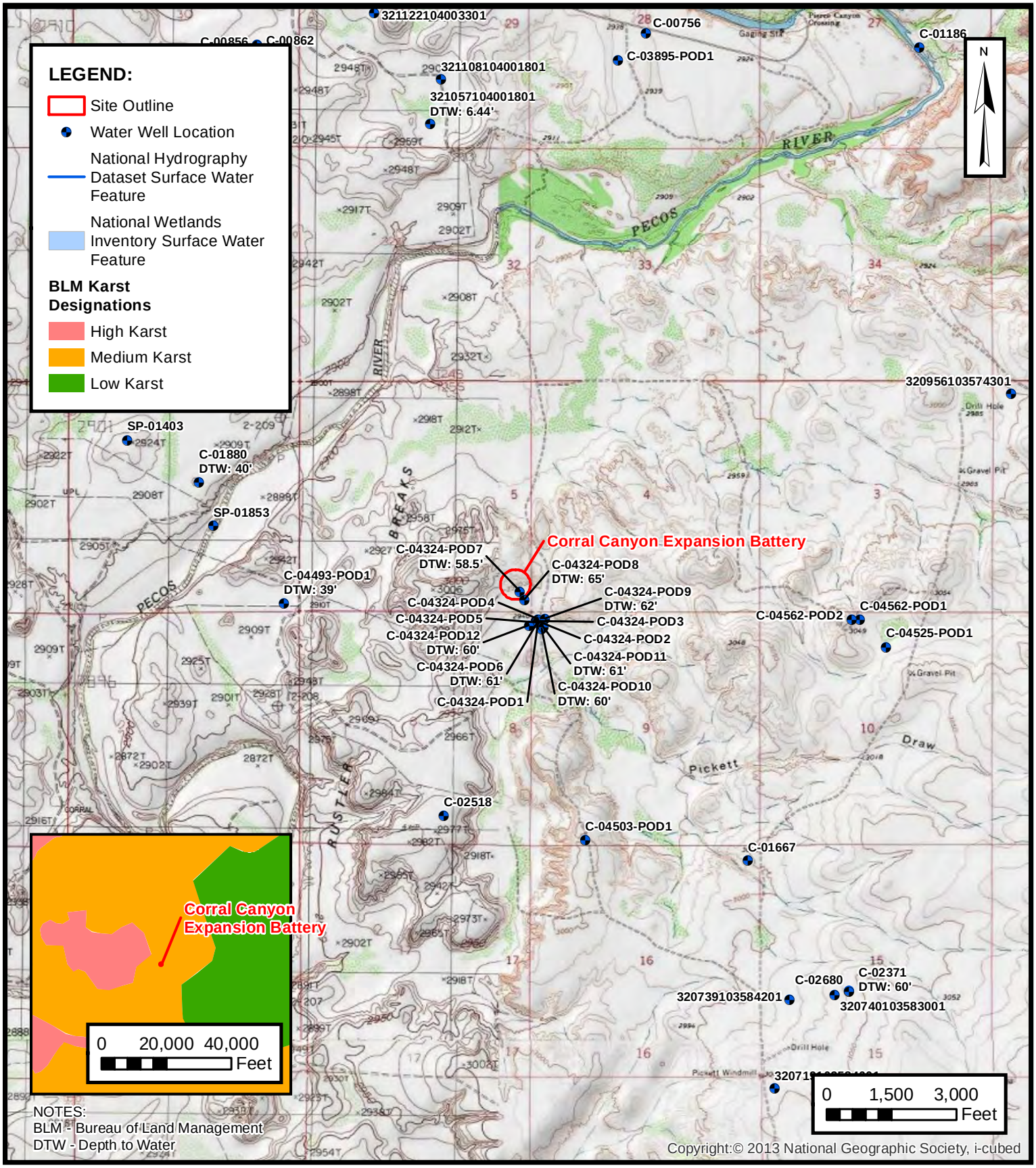
FIGURES

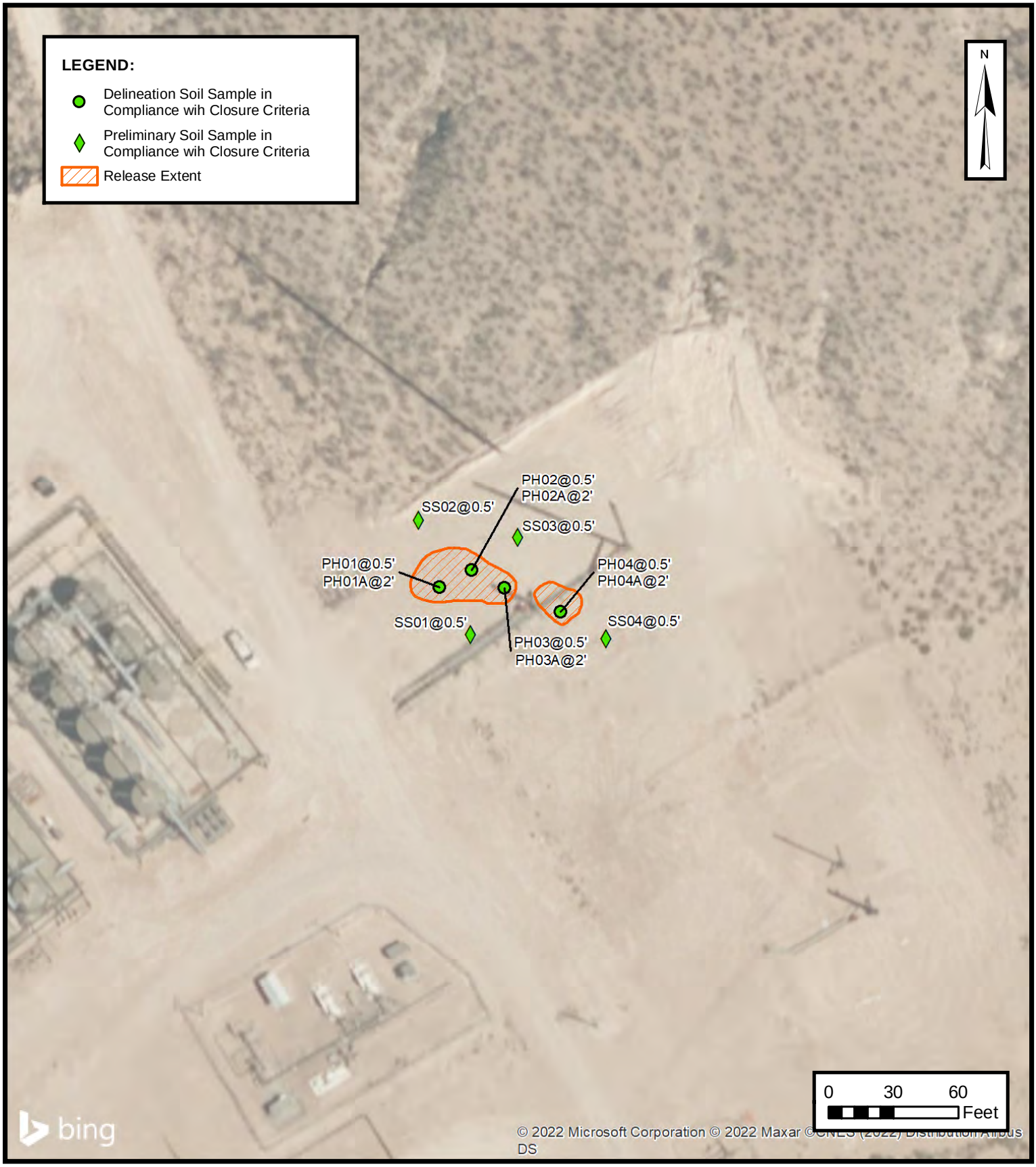


ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

SITE RECEPTOR MAP

XTO ENERGY, INC
CORRAL CANYON EXPANSION BATTERY
NAPP2215951900
Unit P, Sec 5, T25S, R29E
Eddy County, New Mexico

FIGURE
1



ENSOLUM
Environmental, Engineering and Hydrogeologic Consultants

DELINEATION SOIL SAMPLE LOCATIONS

XTO ENERGY, INC
CORRAL CANYON EXPANSION BATTERY
NAPP2215951900
Unit P, Sec 5, T25S, R29E
Eddy County, New Mexico

FIGURE
2

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TABLES

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TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
Corral Canyon Expansion Battery
XTO Energy, Inc.
Eddy County, New Mexico

Sample I.D.	Sample Date	Sample Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	GRO+DRO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table 1 Closure Criteria (NMAC 19.15.29)			**10**	**50**	**NE**	**NE**	**NE**	**1,000**	**2,500**	**10,000**
Delineation Soil Samples										
SS01	08/22/2022	0.5	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	11.9
SS02	08/22/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	<50.0	8.54
SS03	08/22/2022	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	18.7
SS04	08/22/2022	0.5	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	13.1
PH01	08/22/2022	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	95.9
PH01A	08/22/2022	2	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<49.8	32.3
PH02	08/22/2022	0.5	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	<50.0	72.7
PH02A	08/22/2022	2	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<50.0	44.8
PH03	08/22/2022	0.5	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<49.9	129
PH03A	08/22/2022	2	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	<49.9	48.1
PH04	08/22/2022	0.5	<0.00200	<0.00399	<49.9	122	69.0	122	191	83.1
PH04A	08/22/2022	2	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<49.9	98.8

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

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APPENDIX A

Referenced Well Records

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
POD 10 (MW04)		C-4324

WELL OWNER NAME(S)	PHONE (OPTIONAL)
XTO Energy, Inc.	432-221-7331

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
522 W Mermond, Suite 704	Carlsbad	NM	88220

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	9	5.57	N
	LONGITUDE	103	59	49.05	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

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

North West Quarter of North West Quarter of Section 9, Township 25 South, Range 29 East, Eddy County, New Mexico

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1664	Shawn Cain	Cascade Drilling

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
7/20/2019	7/21/2019	65	65	60

COMPLETED WELL IS: ☐ ARTESIAN ☐ DRY HOLE ☑ SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT): 55

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

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

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	65	6					
0	45		2" PVC Blank	Flush Thread SCH 40	2.067	.154	
45	65		2" PVC Screen	Flush Thread SCH 40	2.067	.154	.020

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL	AMOUNT (cubic feet)	METHOD OF PLACEMENT
0	2	6	Concrete	.5	Poured
2	43	6	Bentonite Chips	7.5	Poured
43	65	6	12-20 Sand	4	Poured

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 04/30/19)

FILE NO. C-4324	POD NO. 10	TRN NO. 654446
LOCATION 25S.29E.9.111	WELL TAG ID NO.	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES (attach supplemental sheets to fully describe all units)	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	15	15	(SP-SM) - brown-light brown silty SAND	Y ✓ N	
15	43	28	(CLCHE) - tan CALICHE	Y ✓ N	
43	60	17	(SP) - brown-red SAND	Y ✓ N	
60	65	5	(CLCHE) - lt brown CALICHE	✓ Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

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

TOTAL ESTIMATED WELL YIELD (gpm): 0.00

5. TEST; RIG SUPERVISION

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

MISCELLANEOUS INFORMATION:

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

6. SIGNATURE

BY SIGNING BELOW, I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED WELL. I ALSO CERTIFY THAT THE WELL TAG, IF REQUIRED, HAS BEEN INSTALLED AND THAT THIS WELL RECORD WILL ALSO BE FILED WITH THE PERMIT HOLDER WITHIN 30 DAYS AFTER THE COMPLETION OF WELL DRILLING.

Shawn C. Shawn Cavi — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

8-23-19 — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 04/30/2019)

FILE NO.	POD NO.	TRN NO.
LOCATION	WELL TAG ID NO.	PAGE 2 OF 2

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.
- Attention current WaterAlert users: NextGen WaterAlert is replacing Legacy WaterAlert. You must take action before 9/30/2022 to retain your alerts. Read more.
- Full News

Groundwater levels for the Nation

Important: Next Generation Monitoring Location Page

Search Results -- 1 sites found

site_no list =
- 321057104001801

Minimum number of levels = 1

Save file of selected sites to local disk for future upload

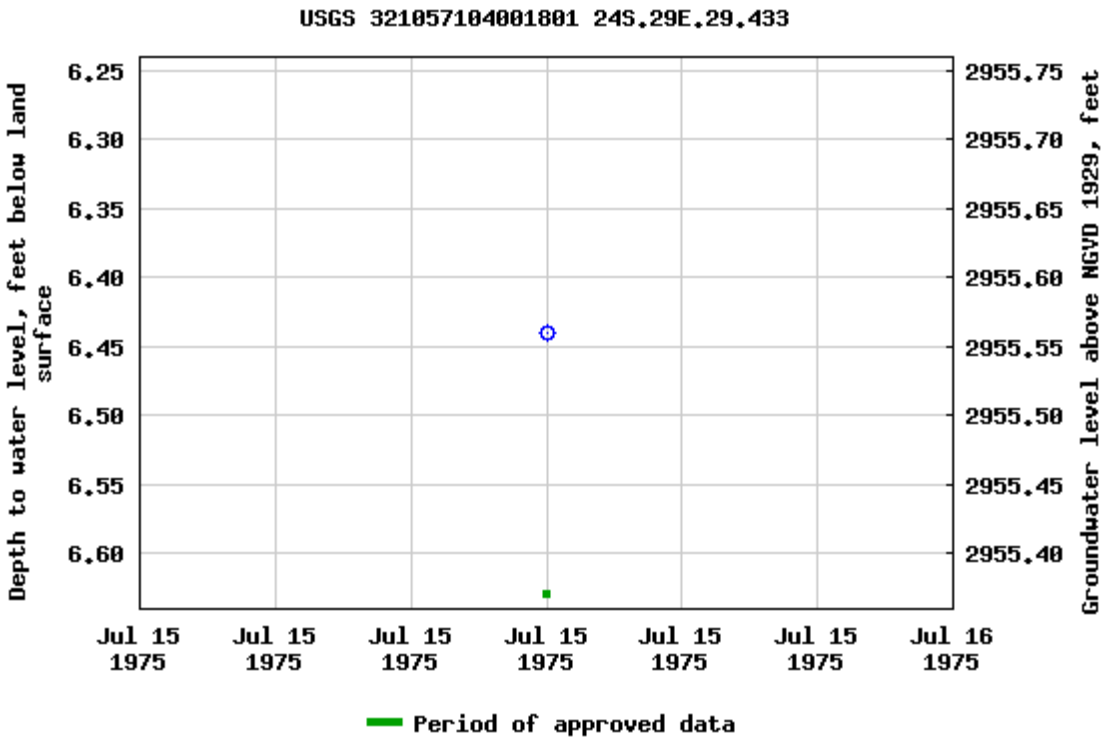
USGS 321057104001801 24S.29E.29.433

Available data for this site | Groundwater: Field measurements | GO

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°10'57", Longitude 104°00'18" NAD27
Land-surface elevation 2,962 feet above NGVD29
This well is completed in the Other aquifers (N9999OTHER) national aquifer.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) 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: 2022-08-29 12:34:11 EDT
0.72 0.55 nadww01

ENSOLUM

APPENDIX B

Photographic Log

ENSOLUM

Photographic Log
XTO Energy, Inc.
Corral Canyon Expansion
nAPP2215951900

Photograph 1 Date: 7/19/2022
Description: View of staining from the flare fire, facing east.

Photograph 2 Date: 7/19/2022
Description: View of staining on south side of the flare, facing north.

Photograph 3 Date: 8/22/2022
Description: Photo showing scraped area facing southeast

Photograph 4 Date: 8/22/2022
Description: View of staining scrape facing west.

ENSOLUM

APPENDIX C

Lithologic Soil Sampling Logs

ENSOLUM

	Sample Name: PH01	Date: 8/22/22
	Site Name: Corral Canyon Expansion	
	Incident Number: nAPP2215951900	
	Job Number: 03E1558084	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Kase Parker	Method: Backhoe
Coordinates: 32.15372, -103.99931	Hole Diameter: ~3'	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
	ND	0.6	N	PH01	0.5	0.5		Silty Caliche
	ND	0.1	N		1	1		Fine Brown Sand
	ND	0.2	N	PH01A	2	2		Fine Brown Sand Total depth @ 2' bgs

ENSOLUM

Sample Name: PH02	Date: 8/22/22
Site Name: Corral Canyon Expansion	
Incident Number: nAPP2215951900	
Job Number: 03E1558084	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Kase Parker / Method: Backhoe
Coordinates: 32.15372, -103.99931	Hole Diameter: ~3' / 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
	ND	0.6	N	PH02	0.5	0.5		Silty Caliche
	ND	0.2	N		1	1		Fine Brown Sand
	ND	0.2	N	PH02A	2	2		Fine Brown Sand Total depth @ 2' bgs

ENSOLUM

	Sample Name: PH03	Date: 8/22/22
	Site Name: Corral Canyon Expansion	
	Incident Number: nAPP2215951900	
	Job Number: 03E1558084	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Kase Parker	Method: Backhoe
Coordinates: 32.15372, -103.99931	Hole Diameter: ~3'	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
	ND	0.2	N	PH03	0.5	0.5		Silty Caliche
	201	0.1	N		1	1		Silty Fine Sand
	ND	0	N	PH03A	2	2		Fine Brown Sand Total depth @ 2' bgs

ENSOLUM

	Sample Name: PH04	Date: 8/22/22
	Site Name: Corral Canyon Expansion	
	Incident Number: nAPP2215951900	
	Job Number: 03E1558084	
LITHOLOGIC / SOIL SAMPLING LOG	Logged By: Kase Parker	Method: Backhoe
Coordinates: 32.15372, -103.99931	Hole Diameter: ~3'	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
	ND	0	N	PH04	0.5	0.5		Silty Caliche
	168	0	N		1	1		Silty Caliche
	ND	0	N	PH04A	2	2		Silty Caliche
								Total depth @ 2' 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: 890-2804-1
Laboratory Sample Delivery Group: 03E1558084
Client Project/Site: Corral Canyon Expansion

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

Attn: Tacoma Morrissey

JKramer

Authorized for release by:
8/25/2022 2:43:57 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 Expansion

Laboratory Job ID: 890-2804-1
SDG: 03E1558084

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-2804-1
Project/Site: Corral Canyon Expansion SDG: 03E1558084

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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 Expansion

Job ID: 890-2804-1
SDG: 03E1558084

Job ID: 890-2804-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2804-1

Receipt
The sample was received on 8/23/2022 8:28 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.6°C

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

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

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

Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2804-1
SDG: 03E1558084

Client Sample ID: SS02

Date Collected: 08/22/22 13:45
Date Received: 08/23/22 08:28
Sample Depth: 0.5

Lab Sample ID: 890-2804-1

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		08/24/22 10:24	08/24/22 15:15	1
Toluene	<0.00199	U	0.00199		mg/Kg		08/24/22 10:24	08/24/22 15:15	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		08/24/22 10:24	08/24/22 15:15	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		08/24/22 10:24	08/24/22 15:15	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		08/24/22 10:24	08/24/22 15:15	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		08/24/22 10:24	08/24/22 15:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*08/24/22 10:24*	*08/24/22 15:15*	*1*
1,4-Difluorobenzene (Surr)	*102*		*70 - 130*	*08/24/22 10:24*	*08/24/22 15:15*	*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			08/24/22 16:04	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			08/25/22 09:31	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		08/24/22 08:40	08/24/22 17:30	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/24/22 08:40	08/24/22 17:30	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/24/22 08:40	08/24/22 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*08/24/22 08:40*	*08/24/22 17:30*	*1*
o-Terphenyl	*96*		*70 - 130*	*08/24/22 08:40*	*08/24/22 17:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**8.54**		5.02		mg/Kg			08/25/22 00:48	1

Surrogate Summary

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2804-1
SDG: 03E1558084

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2802-A-1-A MS	Matrix Spike	110	103
890-2802-A-1-B MSD	Matrix Spike Duplicate	109	98
890-2804-1	SS02	105	102
LCS 880-32835/1-A	Lab Control Sample	100	101
LCSD 880-32835/2-A	Lab Control Sample Dup	104	107
MB 880-32835/5-A	Method Blank	80	88

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2794-A-1-C MS	Matrix Spike	101	94
890-2794-A-1-D MSD	Matrix Spike Duplicate	87	83
890-2804-1	SS02	91	96
LCS 880-32817/2-A	Lab Control Sample	81	97
LCSD 880-32817/3-A	Lab Control Sample Dup	78	94
MB 880-32817/1-A	Method Blank	95	102

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2804-1
SDG: 03E1558084

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-32835/5-A
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32835

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/24/22 10:24	08/24/22 13:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*08/24/22 10:24*	*08/24/22 13:56*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*08/24/22 10:24*	*08/24/22 13:56*	*1*

Lab Sample ID: LCS 880-32835/1-A
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32835

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09463		mg/Kg		95	70 - 130		
Toluene			0.100	0.09936		mg/Kg		99	70 - 130		
Ethylbenzene			0.100	0.09277		mg/Kg		93	70 - 130		
m-Xylene & p-Xylene			0.200	0.1944		mg/Kg		97	70 - 130		
o-Xylene			0.100	0.1080		mg/Kg		108	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-32835/2-A
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32835

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1047		mg/Kg		105	70 - 130	10	35
Toluene			0.100	0.1049		mg/Kg		105	70 - 130	5	35
Ethylbenzene			0.100	0.1031		mg/Kg		103	70 - 130	11	35
m-Xylene & p-Xylene			0.200	0.2127		mg/Kg		106	70 - 130	9	35
o-Xylene			0.100	0.1178		mg/Kg		118	70 - 130	9	35

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

Lab Sample ID: 890-2802-A-1-A MS
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32835

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.100	0.09061		mg/Kg		90	70 - 130		
Toluene	<0.00201	U	0.100	0.09967		mg/Kg		99	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2804-1
SDG: 03E1558084

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

Lab Sample ID: 890-2802-A-1-A MS
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32835

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.100	0.09369		mg/Kg		93	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.201	0.1929		mg/Kg		96	70 - 130
o-Xylene	<0.00201	U	0.100	0.1046		mg/Kg		104	70 - 130

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

Lab Sample ID: 890-2802-A-1-B MSD
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 32835

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.08856		mg/Kg		89	70 - 130	2	35
Toluene	<0.00201	U	0.0990	0.09614		mg/Kg		97	70 - 130	4	35
Ethylbenzene	<0.00201	U	0.0990	0.09122		mg/Kg		92	70 - 130	3	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1855		mg/Kg		94	70 - 130	4	35
o-Xylene	<0.00201	U	0.0990	0.1006		mg/Kg		102	70 - 130	4	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

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

Lab Sample ID: MB 880-32817/1-A
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32817

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		08/24/22 08:40	08/24/22 10:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/24/22 08:40	08/24/22 10:43	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/24/22 08:40	08/24/22 10:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*08/24/22 08:40*	*08/24/22 10:43*	*1*
o-Terphenyl	*102*		*70 - 130*	*08/24/22 08:40*	*08/24/22 10:43*	*1*

Lab Sample ID: LCS 880-32817/2-A
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32817

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	979.2		mg/Kg		98	70 - 130
Diesel Range Organics (Over C10-C28)			1000	786.3		mg/Kg		79	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2804-1
SDG: 03E1558084

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

Lab Sample ID: LCS 880-32817/2-A
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32817

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	81		70 - 130
o-Terphenyl	97		70 - 130

Lab Sample ID: LCSD 880-32817/3-A
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32817

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	930.0		mg/Kg		93	70 - 130	5	20
Diesel Range Organics (Over C10-C28)			1000	765.3		mg/Kg		77	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	78		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: 890-2794-A-1-C MS
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32817

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	1138		mg/Kg		114	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	999	853.2		mg/Kg		85	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: 890-2794-A-1-D MSD
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 32817

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	956.7		mg/Kg		96	70 - 130	17	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	760.2		mg/Kg		76	70 - 130	12	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	83		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2804-1
SDG: 03E1558084

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-32845/1-A
Matrix: Solid
Analysis Batch: 32874

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			08/24/22 21:08	1

Lab Sample ID: LCS 880-32845/2-A
Matrix: Solid
Analysis Batch: 32874

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	234.1		mg/Kg		94	90 - 110		

Lab Sample ID: LCSD 880-32845/3-A
Matrix: Solid
Analysis Batch: 32874

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	234.4		mg/Kg		94	90 - 110	0	20

Lab Sample ID: 890-2801-A-4-D MS
Matrix: Solid
Analysis Batch: 32874

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	44.8		252	297.5		mg/Kg		100	90 - 110		

Lab Sample ID: 890-2801-A-4-E MSD
Matrix: Solid
Analysis Batch: 32874

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	44.8		252	297.4		mg/Kg		100	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2804-1
SDG: 03E1558084

GC VOA

Analysis Batch: 32815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2804-1	SS02	Total/NA	Solid	8021B	32835
MB 880-32835/5-A	Method Blank	Total/NA	Solid	8021B	32835
LCS 880-32835/1-A	Lab Control Sample	Total/NA	Solid	8021B	32835
LCSD 880-32835/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	32835
890-2802-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	32835
890-2802-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	32835

Prep Batch: 32835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2804-1	SS02	Total/NA	Solid	5035	
MB 880-32835/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-32835/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-32835/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2802-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-2802-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 32864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2804-1	SS02	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 32810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2804-1	SS02	Total/NA	Solid	8015B NM	32817
MB 880-32817/1-A	Method Blank	Total/NA	Solid	8015B NM	32817
LCS 880-32817/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32817
LCSD 880-32817/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32817
890-2794-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	32817
890-2794-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	32817

Prep Batch: 32817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2804-1	SS02	Total/NA	Solid	8015NM Prep	
MB 880-32817/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32817/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32817/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2794-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2794-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 32903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2804-1	SS02	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 32845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2804-1	SS02	Soluble	Solid	DI Leach	
MB 880-32845/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32845/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32845/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2804-1
SDG: 03E1558084

HPLC/IC (Continued)

Leach Batch: 32845 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-A-4-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2801-A-4-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 32874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2804-1	SS02	Soluble	Solid	300.0	32845
MB 880-32845/1-A	Method Blank	Soluble	Solid	300.0	32845
LCS 880-32845/2-A	Lab Control Sample	Soluble	Solid	300.0	32845
LCSD 880-32845/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32845
890-2801-A-4-D MS	Matrix Spike	Soluble	Solid	300.0	32845
890-2801-A-4-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	32845

Lab Chronicle

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2804-1
SDG: 03E1558084

Client Sample ID: SS02

Date Collected: 08/22/22 13:45
Date Received: 08/23/22 08:28

Lab Sample ID: 890-2804-1

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	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 15:15	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32864	08/24/22 16:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			32903	08/25/22 09:31	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32817	08/24/22 08:40	DM	EET MID
Total/NA	Analysis	8015B NM		1			32810	08/24/22 17:30	SM	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/25/22 00:48	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2804-1
SDG: 03E1558084

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

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

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

Method Summary

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2804-1
SDG: 03E1558084

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2804-1
SDG: 03E1558084

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2804-1	SS02	Solid	08/22/22 13:45	08/23/22 08:28	0.5

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Environment Testing
Xenco

Chain of Custody

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

Work Order No: _____

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

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 Expansion	**Turn Around**	
Project Number:	03E1558084	☐ Routine ☑ Rush	
Project Location:	32.15372, -103.99931	Due Date:	24hr TAT
Sampler's Name:	Kase Parker	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT	Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	
Samples Received Intact:	(Yes) No	Thermometer ID:	TNM007		
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2		
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	5.8		
Total Containers:		Corrected Temperature:	5.6		

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	Parameters	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
SS02	S	8/22/2022	13:45	0.5					x	x	x

890-2804 Chain of Custody

Preservative Codes

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

Sample Comments

Incident ID:
nAPP2215951900
Cost Center:
1056571001
AFE:

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		8.23.22 808	2		
3			4		
5			6		

Revised Date 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2804-1
SDG Number: 03E1558084

Login Number: 2804
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2804-1
SDG Number: 03E1558084

Login Number: 2804
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 08/24/22 10:58 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-2803-1
Laboratory Sample Delivery Group: 03E1558084
Client Project/Site: Corral Canyon Expansion

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

Attn: Tacoma Morrissey

JKramer

Authorized for release by:
8/25/2022 2:43:57 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 Expansion

Laboratory Job ID: 890-2803-1
SDG: 03E1558084

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-2803-1
Project/Site: Corral Canyon Expansion SDG: 03E1558084

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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 Expansion

Job ID: 890-2803-1
SDG: 03E1558084

Job ID: 890-2803-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2803-1

Receipt
The sample was received on 8/23/2022 8:28 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.6°C

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

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

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

Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2803-1
SDG: 03E1558084

Client Sample ID: SS03

Date Collected: 08/22/22 13:50
Date Received: 08/23/22 08:28
Sample Depth: 0.5

Lab Sample ID: 890-2803-1

Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 14:48	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 14:48	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 14:48	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		08/24/22 10:24	08/24/22 14:48	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 14:48	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		08/24/22 10:24	08/24/22 14:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*	*08/24/22 10:24*	*08/24/22 14:48*	*1*
1,4-Difluorobenzene (Surr)	*100*		*70 - 130*	*08/24/22 10:24*	*08/24/22 14:48*	*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			08/24/22 16:04	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			08/25/22 09:31	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		08/24/22 08:40	08/24/22 17:09	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		08/24/22 08:40	08/24/22 17:09	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		08/24/22 08:40	08/24/22 17:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*85*		*70 - 130*	*08/24/22 08:40*	*08/24/22 17:09*	*1*
o-Terphenyl	*90*		*70 - 130*	*08/24/22 08:40*	*08/24/22 17:09*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**18.7**		4.95		mg/Kg			08/25/22 00:40	1

Surrogate Summary

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2803-1
SDG: 03E1558084

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2802-A-1-A MS	Matrix Spike	110	103
890-2802-A-1-B MSD	Matrix Spike Duplicate	109	98
890-2803-1	SS03	109	100
LCS 880-32835/1-A	Lab Control Sample	100	101
LCSD 880-32835/2-A	Lab Control Sample Dup	104	107
MB 880-32835/5-A	Method Blank	80	88

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2794-A-1-C MS	Matrix Spike	101	94
890-2794-A-1-D MSD	Matrix Spike Duplicate	87	83
890-2803-1	SS03	85	90
LCS 880-32817/2-A	Lab Control Sample	81	97
LCSD 880-32817/3-A	Lab Control Sample Dup	78	94
MB 880-32817/1-A	Method Blank	95	102

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2803-1
SDG: 03E1558084

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-32835/5-A
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32835

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/24/22 10:24	08/24/22 13:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*08/24/22 10:24*	*08/24/22 13:56*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*08/24/22 10:24*	*08/24/22 13:56*	*1*

Lab Sample ID: LCS 880-32835/1-A
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32835

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09463		mg/Kg		95	70 - 130		
Toluene			0.100	0.09936		mg/Kg		99	70 - 130		
Ethylbenzene			0.100	0.09277		mg/Kg		93	70 - 130		
m-Xylene & p-Xylene			0.200	0.1944		mg/Kg		97	70 - 130		
o-Xylene			0.100	0.1080		mg/Kg		108	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-32835/2-A
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32835

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1047		mg/Kg		105	70 - 130	10	35
Toluene			0.100	0.1049		mg/Kg		105	70 - 130	5	35
Ethylbenzene			0.100	0.1031		mg/Kg		103	70 - 130	11	35
m-Xylene & p-Xylene			0.200	0.2127		mg/Kg		106	70 - 130	9	35
o-Xylene			0.100	0.1178		mg/Kg		118	70 - 130	9	35

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

Lab Sample ID: 890-2802-A-1-A MS
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32835

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.100	0.09061		mg/Kg		90	70 - 130		
Toluene	<0.00201	U	0.100	0.09967		mg/Kg		99	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2803-1
SDG: 03E1558084

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

Lab Sample ID: 890-2802-A-1-A MS
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32835

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.100	0.09369		mg/Kg		93	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.201	0.1929		mg/Kg		96	70 - 130
o-Xylene	<0.00201	U	0.100	0.1046		mg/Kg		104	70 - 130

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

Lab Sample ID: 890-2802-A-1-B MSD
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 32835

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.08856		mg/Kg		89	70 - 130	2	35
Toluene	<0.00201	U	0.0990	0.09614		mg/Kg		97	70 - 130	4	35
Ethylbenzene	<0.00201	U	0.0990	0.09122		mg/Kg		92	70 - 130	3	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1855		mg/Kg		94	70 - 130	4	35
o-Xylene	<0.00201	U	0.0990	0.1006		mg/Kg		102	70 - 130	4	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

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

Lab Sample ID: MB 880-32817/1-A
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32817

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		08/24/22 08:40	08/24/22 10:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/24/22 08:40	08/24/22 10:43	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/24/22 08:40	08/24/22 10:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*08/24/22 08:40*	*08/24/22 10:43*	*1*
o-Terphenyl	*102*		*70 - 130*	*08/24/22 08:40*	*08/24/22 10:43*	*1*

Lab Sample ID: LCS 880-32817/2-A
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32817

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	979.2		mg/Kg		98	70 - 130
Diesel Range Organics (Over C10-C28)			1000	786.3		mg/Kg		79	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2803-1
SDG: 03E1558084

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

Lab Sample ID: LCS 880-32817/2-A
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32817

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	81		70 - 130
o-Terphenyl	97		70 - 130

Lab Sample ID: LCSD 880-32817/3-A
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32817

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	930.0		mg/Kg		93	70 - 130	5	20
Diesel Range Organics (Over C10-C28)			1000	765.3		mg/Kg		77	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	78		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: 890-2794-A-1-C MS
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32817

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	1138		mg/Kg		114	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	999	853.2		mg/Kg		85	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: 890-2794-A-1-D MSD
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 32817

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	956.7		mg/Kg		96	70 - 130	17	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	760.2		mg/Kg		76	70 - 130	12	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	83		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2803-1
SDG: 03E1558084

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-32845/1-A
Matrix: Solid
Analysis Batch: 32874

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			08/24/22 21:08	1

Lab Sample ID: LCS 880-32845/2-A
Matrix: Solid
Analysis Batch: 32874

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	234.1		mg/Kg		94	90 - 110		

Lab Sample ID: LCSD 880-32845/3-A
Matrix: Solid
Analysis Batch: 32874

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	234.4		mg/Kg		94	90 - 110	0	20

Lab Sample ID: 890-2801-A-4-D MS
Matrix: Solid
Analysis Batch: 32874

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	44.8		252	297.5		mg/Kg		100	90 - 110		

Lab Sample ID: 890-2801-A-4-E MSD
Matrix: Solid
Analysis Batch: 32874

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	44.8		252	297.4		mg/Kg		100	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2803-1
SDG: 03E1558084

GC VOA

Analysis Batch: 32815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2803-1	SS03	Total/NA	Solid	8021B	32835
MB 880-32835/5-A	Method Blank	Total/NA	Solid	8021B	32835
LCS 880-32835/1-A	Lab Control Sample	Total/NA	Solid	8021B	32835
LCSD 880-32835/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	32835
890-2802-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	32835
890-2802-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	32835

Prep Batch: 32835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2803-1	SS03	Total/NA	Solid	5035	
MB 880-32835/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-32835/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-32835/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2802-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-2802-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 32863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2803-1	SS03	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 32810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2803-1	SS03	Total/NA	Solid	8015B NM	32817
MB 880-32817/1-A	Method Blank	Total/NA	Solid	8015B NM	32817
LCS 880-32817/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32817
LCSD 880-32817/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32817
890-2794-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	32817
890-2794-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	32817

Prep Batch: 32817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2803-1	SS03	Total/NA	Solid	8015NM Prep	
MB 880-32817/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32817/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32817/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2794-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2794-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 32902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2803-1	SS03	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 32845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2803-1	SS03	Soluble	Solid	DI Leach	
MB 880-32845/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32845/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32845/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2803-1
SDG: 03E1558084

HPLC/IC (Continued)

Leach Batch: 32845 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-A-4-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2801-A-4-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 32874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2803-1	SS03	Soluble	Solid	300.0	32845
MB 880-32845/1-A	Method Blank	Soluble	Solid	300.0	32845
LCS 880-32845/2-A	Lab Control Sample	Soluble	Solid	300.0	32845
LCSD 880-32845/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32845
890-2801-A-4-D MS	Matrix Spike	Soluble	Solid	300.0	32845
890-2801-A-4-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	32845

Lab Chronicle

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2803-1
SDG: 03E1558084

Client Sample ID: SS03

Date Collected: 08/22/22 13:50
Date Received: 08/23/22 08:28

Lab Sample ID: 890-2803-1

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			5.01 g	5 mL	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 14:48	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32863	08/24/22 16:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			32902	08/25/22 09:31	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	32817	08/24/22 08:40	DM	EET MID
Total/NA	Analysis	8015B NM		1			32810	08/24/22 17:09	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/25/22 00:40	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2803-1
SDG: 03E1558084

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

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

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

Method Summary

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2803-1
SDG: 03E1558084

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2803-1
SDG: 03E1558084

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2803-1	SS03	Solid	08/22/22 13:50	08/23/22 08:28	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:	Tacoma Morrissey	Bill to: (if different)	Garret Green
Company Name:	Ensolum	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Green St.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	303-887-2946	Email:	Garret.Green@ExxonMobil.com

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 Expansion	**Turn Around**	
Project Number:	03E1558084	☐ Routine ☑ Rush	
Project Location:	32.15372, -103.99931	Due Date:	24hr TAT
Sampler's Name:	Kase Parker	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	IR#007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	5.5
Total Containers:		Corrected Temperature:	5.3

ANALYSIS REQUEST

Preservative Codes

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

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
SS03	S	8/22/2022	13:50	0.5				x	x	x

890-2803 Chain of Custody

Sample Comments

Incident ID:
nAPP2215951900
Cost Center:
1056571001
AFE:

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			8.23.22 823			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2803-1
SDG Number: 03E1558084

Login Number: 2803
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2803-1
SDG Number: 03E1558084

Login Number: 2803
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 08/24/22 10:58 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-2802-1
Laboratory Sample Delivery Group: 03E1558084
Client Project/Site: Corral Canyon Expansion

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

Attn: Tacoma Morrissey

JKramer

Authorized for release by:
8/25/2022 2:43:24 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 Expansion

Laboratory Job ID: 890-2802-1
SDG: 03E1558084

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-2802-1
Project/Site: Corral Canyon Expansion SDG: 03E1558084

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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 Expansion

Job ID: 890-2802-1
SDG: 03E1558084

Job ID: 890-2802-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2802-1

Receipt
The sample was received on 8/23/2022 8:28 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.6°C

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

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

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

Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2802-1
SDG: 03E1558084

Client Sample ID: SS04

Date Collected: 08/22/22 13:55
Date Received: 08/23/22 08:28
Sample Depth: 0.5

Lab Sample ID: 890-2802-1

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		08/24/22 10:24	08/24/22 14:22	1
Toluene	<0.00201	U	0.00201		mg/Kg		08/24/22 10:24	08/24/22 14:22	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		08/24/22 10:24	08/24/22 14:22	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		08/24/22 10:24	08/24/22 14:22	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		08/24/22 10:24	08/24/22 14:22	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		08/24/22 10:24	08/24/22 14:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*70 - 130*	*08/24/22 10:24*	*08/24/22 14:22*	*1*
1,4-Difluorobenzene (Surr)	*89*		*70 - 130*	*08/24/22 10:24*	*08/24/22 14:22*	*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			08/24/22 16:04	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			08/24/22 17:10	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		08/24/22 08:40	08/24/22 16:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/24/22 08:40	08/24/22 16:47	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/24/22 08:40	08/24/22 16:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*90*		*70 - 130*	*08/24/22 08:40*	*08/24/22 16:47*	*1*
o-Terphenyl	*94*		*70 - 130*	*08/24/22 08:40*	*08/24/22 16:47*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**13.1**		4.96		mg/Kg			08/25/22 00:33	1

Surrogate Summary

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2802-1
SDG: 03E1558084

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)	
		BFB1	DFBZ1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2802-1	SS04	97	89
890-2802-1 MS	SS04	110	103
890-2802-1 MSD	SS04	109	98
LCS 880-32835/1-A	Lab Control Sample	100	101
LCSD 880-32835/2-A	Lab Control Sample Dup	104	107
MB 880-32835/5-A	Method Blank	80	88

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)	
		1CO1	OTPH1
Lab Sample ID	Client Sample ID	(70-130)	(70-130)
890-2794-A-1-C MS	Matrix Spike	101	94
890-2794-A-1-D MSD	Matrix Spike Duplicate	87	83
890-2802-1	SS04	90	94
LCS 880-32817/2-A	Lab Control Sample	81	97
LCSD 880-32817/3-A	Lab Control Sample Dup	78	94
MB 880-32817/1-A	Method Blank	95	102

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2802-1
SDG: 03E1558084

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-32835/5-A
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32835

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/24/22 10:24	08/24/22 13:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*08/24/22 10:24*	*08/24/22 13:56*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*08/24/22 10:24*	*08/24/22 13:56*	*1*

Lab Sample ID: LCS 880-32835/1-A
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32835

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09463		mg/Kg		95	70 - 130		
Toluene			0.100	0.09936		mg/Kg		99	70 - 130		
Ethylbenzene			0.100	0.09277		mg/Kg		93	70 - 130		
m-Xylene & p-Xylene			0.200	0.1944		mg/Kg		97	70 - 130		
o-Xylene			0.100	0.1080		mg/Kg		108	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-32835/2-A
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32835

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1047		mg/Kg		105	70 - 130	10	35
Toluene			0.100	0.1049		mg/Kg		105	70 - 130	5	35
Ethylbenzene			0.100	0.1031		mg/Kg		103	70 - 130	11	35
m-Xylene & p-Xylene			0.200	0.2127		mg/Kg		106	70 - 130	9	35
o-Xylene			0.100	0.1178		mg/Kg		118	70 - 130	9	35

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

Lab Sample ID: 890-2802-1 MS
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: SS04
Prep Type: Total/NA
Prep Batch: 32835

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.100	0.09061		mg/Kg		90	70 - 130		
Toluene	<0.00201	U	0.100	0.09967		mg/Kg		99	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2802-1
SDG: 03E1558084

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

Lab Sample ID: 890-2802-1 MS
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: SS04
Prep Type: Total/NA
Prep Batch: 32835

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.100	0.09369		mg/Kg		93	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.201	0.1929		mg/Kg		96	70 - 130
o-Xylene	<0.00201	U	0.100	0.1046		mg/Kg		104	70 - 130

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

Lab Sample ID: 890-2802-1 MSD
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: SS04
Prep Type: Total/NA
Prep Batch: 32835

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.08856		mg/Kg		89	70 - 130	2	35
Toluene	<0.00201	U	0.0990	0.09614		mg/Kg		97	70 - 130	4	35
Ethylbenzene	<0.00201	U	0.0990	0.09122		mg/Kg		92	70 - 130	3	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1855		mg/Kg		94	70 - 130	4	35
o-Xylene	<0.00201	U	0.0990	0.1006		mg/Kg		102	70 - 130	4	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

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

Lab Sample ID: MB 880-32817/1-A
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32817

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		08/24/22 08:40	08/24/22 10:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/24/22 08:40	08/24/22 10:43	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/24/22 08:40	08/24/22 10:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*08/24/22 08:40*	*08/24/22 10:43*	*1*
o-Terphenyl	*102*		*70 - 130*	*08/24/22 08:40*	*08/24/22 10:43*	*1*

Lab Sample ID: LCS 880-32817/2-A
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32817

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	979.2		mg/Kg		98	70 - 130
Diesel Range Organics (Over C10-C28)			1000	786.3		mg/Kg		79	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2802-1
SDG: 03E1558084

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

Lab Sample ID: LCS 880-32817/2-A
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32817

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	81		70 - 130
o-Terphenyl	97		70 - 130

Lab Sample ID: LCSD 880-32817/3-A
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32817

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	930.0		mg/Kg		93	70 - 130	5	20
Diesel Range Organics (Over C10-C28)			1000	765.3		mg/Kg		77	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	78		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: 890-2794-A-1-C MS
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32817

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	1138		mg/Kg		114	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	999	853.2		mg/Kg		85	70 - 130		

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: 890-2794-A-1-D MSD
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 32817

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	956.7		mg/Kg		96	70 - 130	17	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	760.2		mg/Kg		76	70 - 130	12	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	83		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2802-1
SDG: 03E1558084

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-32845/1-A
Matrix: Solid
Analysis Batch: 32874

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			08/24/22 21:08	1

Lab Sample ID: LCS 880-32845/2-A
Matrix: Solid
Analysis Batch: 32874

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	234.1		mg/Kg		94	90 - 110		

Lab Sample ID: LCSD 880-32845/3-A
Matrix: Solid
Analysis Batch: 32874

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	234.4		mg/Kg		94	90 - 110	0	20

Lab Sample ID: 890-2801-A-4-D MS
Matrix: Solid
Analysis Batch: 32874

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	44.8		252	297.5		mg/Kg		100	90 - 110		

Lab Sample ID: 890-2801-A-4-E MSD
Matrix: Solid
Analysis Batch: 32874

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	44.8		252	297.4		mg/Kg		100	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2802-1
SDG: 03E1558084

GC VOA

Analysis Batch: 32815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2802-1	SS04	Total/NA	Solid	8021B	32835
MB 880-32835/5-A	Method Blank	Total/NA	Solid	8021B	32835
LCS 880-32835/1-A	Lab Control Sample	Total/NA	Solid	8021B	32835
LCSD 880-32835/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	32835
890-2802-1 MS	SS04	Total/NA	Solid	8021B	32835
890-2802-1 MSD	SS04	Total/NA	Solid	8021B	32835

Prep Batch: 32835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2802-1	SS04	Total/NA	Solid	5035	
MB 880-32835/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-32835/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-32835/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2802-1 MS	SS04	Total/NA	Solid	5035	
890-2802-1 MSD	SS04	Total/NA	Solid	5035	

Analysis Batch: 32862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2802-1	SS04	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 32810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2802-1	SS04	Total/NA	Solid	8015B NM	32817
MB 880-32817/1-A	Method Blank	Total/NA	Solid	8015B NM	32817
LCS 880-32817/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32817
LCSD 880-32817/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32817
890-2794-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	32817
890-2794-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	32817

Prep Batch: 32817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2802-1	SS04	Total/NA	Solid	8015NM Prep	
MB 880-32817/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32817/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32817/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2794-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2794-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 32872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2802-1	SS04	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 32845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2802-1	SS04	Soluble	Solid	DI Leach	
MB 880-32845/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32845/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32845/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2802-1
SDG: 03E1558084

HPLC/IC (Continued)

Leach Batch: 32845 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-A-4-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2801-A-4-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 32874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2802-1	SS04	Soluble	Solid	300.0	32845
MB 880-32845/1-A	Method Blank	Soluble	Solid	300.0	32845
LCS 880-32845/2-A	Lab Control Sample	Soluble	Solid	300.0	32845
LCSD 880-32845/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32845
890-2801-A-4-D MS	Matrix Spike	Soluble	Solid	300.0	32845
890-2801-A-4-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	32845

Lab Chronicle

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2802-1
SDG: 03E1558084

Client Sample ID: SS04

Date Collected: 08/22/22 13:55
Date Received: 08/23/22 08:28

Lab Sample ID: 890-2802-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 14:22	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32862	08/24/22 16:04	SM	EET MID
Total/NA	Analysis	8015 NM		1			32872	08/24/22 17:10	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32817	08/24/22 08:40	DM	EET MID
Total/NA	Analysis	8015B NM		1			32810	08/24/22 16:47	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/25/22 00:33	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2802-1
SDG: 03E1558084

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

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

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

Method Summary

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2802-1
SDG: 03E1558084

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2802-1
SDG: 03E1558084

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2802-1	SS04	Solid	08/22/22 13:55	08/23/22 08:28	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:	Tacoma Morrissey	Bill to: (if different)	Garret Green
Company Name:	Ensolum	Company Name:	XTO Energy
Address:	3122 National Parks Hwy	Address:	3104 E. Green St.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	303-887-2946	Email:	Garret.Green@ExxonMobil.com

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 Expansion	Turn Around	
Project Number:	03E1558084	☐ Routine ☑ Rush	
Project Location:	32.15372, -103.99931	Due Date:	24hr TAT
Sampler's Name:	Kase Parker	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	(Yes) No	Wet Ice:	(Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	TMM 007
Cooler Custody Seals:	Yes No (N/A)	Correction Factor:	-0.2
Sample Custody Seals:	Yes No (N/A)	Temperature Reading:	5.8
Total Containers:		Corrected Temperature:	5.6

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
SS04	S	8/22/2022	13:55	0.5				x	x	x

Parameters

ANALYSIS REQUEST

890-2802 Chain of Custody

Preservative Codes

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

Sample Comments

Incident ID:
nAPP2215951900
Cost Center:
1056571001
AFE:

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

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

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		8.23.22 8:28			
3			4		
5			6		

Revised Date: 08/25/2020 Rev. 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2802-1
SDG Number: 03E1558084

Login Number: 2802
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2802-1
SDG Number: 03E1558084

Login Number: 2802
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 08/24/22 10:58 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-2801-1
Laboratory Sample Delivery Group: 03E1558084
Client Project/Site: CORRAL CANYON EXPANSION

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

Attn: Tacoma Morrissey

JKramer

Authorized for release by:
8/25/2022 2:42:57 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 EXPANSION

Laboratory Job ID: 890-2801-1
SDG: 03E1558084

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-2801-1
Project/Site: CORRAL CANYON EXPANSION SDG: 03E1558084

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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 EXPANSION

Job ID: 890-2801-1
SDG: 03E1558084

Job ID: 890-2801-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2801-1

Receipt
The samples were received on 8/23/2022 8:28 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 5.6°C

GC VOA
Method 8021B: The method blank for preparation batch 880-32835 and analytical batch 880-32815 contained Ethylbenzene, m-Xylene & p-Xylene and Xylenes, Total above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples 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
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
Method 300_ORGFM_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-32845 and analytical batch 880-32874 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.The associated samples are: PH01 (890-2801-1), PH01A (890-2801-2) and PH02 (890-2801-3).

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 EXPANSION

Job ID: 890-2801-1
SDG: 03E1558084

Client Sample ID: PH01

Date Collected: 08/22/22 13:20
Date Received: 08/23/22 08:28
Sample Depth: 0.5'

Lab Sample ID: 890-2801-1
Matrix: Solid

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 20:33	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 20:33	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 20:33	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		08/24/22 10:24	08/24/22 20:33	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 20:33	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		08/24/22 10:24	08/24/22 20:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*70 - 130*	*08/24/22 10:24*	*08/24/22 20:33*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*08/24/22 10:24*	*08/24/22 20:33*	*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			08/25/22 09:42	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			08/24/22 21:20	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		08/24/22 08:38	08/24/22 15:21	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		08/24/22 08:38	08/24/22 15:21	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		08/24/22 08:38	08/24/22 15:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*08/24/22 08:38*	*08/24/22 15:21*	*1*
o-Terphenyl	*89*		*70 - 130*	*08/24/22 08:38*	*08/24/22 15:21*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**95.9**		4.95		mg/Kg			08/24/22 22:58	1

Client Sample ID: PH01A

Date Collected: 08/22/22 14:05
Date Received: 08/23/22 08:28
Sample Depth: 2'

Lab Sample ID: 890-2801-2
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		08/24/22 10:24	08/24/22 20:59	1
Toluene	<0.00199	U	0.00199		mg/Kg		08/24/22 10:24	08/24/22 20:59	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		08/24/22 10:24	08/24/22 20:59	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		08/24/22 10:24	08/24/22 20:59	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		08/24/22 10:24	08/24/22 20:59	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		08/24/22 10:24	08/24/22 20:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*70 - 130*	*08/24/22 10:24*	*08/24/22 20:59*	*1*

Eurofins Carlsbad

Client Sample Results

Client: Ensolum
Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1
SDG: 03E1558084

Client Sample ID: PH01A

Lab Sample ID: 890-2801-2
Matrix: Solid

Date Collected: 08/22/22 14:05
Date Received: 08/23/22 08:28
Sample Depth: 2'

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*08/24/22 10:24*	*08/24/22 20:59*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398	mg/Kg			08/25/22 09:42	1

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

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8	mg/Kg			08/24/22 21:20	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		08/24/22 08:38	08/24/22 15:43	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8	mg/Kg		08/24/22 08:38	08/24/22 15:43	1
OII Range Organics (Over C28-C36)	<49.8	U	49.8	mg/Kg		08/24/22 08:38	08/24/22 15:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*08/24/22 08:38*	*08/24/22 15:43*	*1*
o-Terphenyl	*89*		*70 - 130*	*08/24/22 08:38*	*08/24/22 15:43*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**32.3**		4.99	mg/Kg			08/24/22 23:06	1

Client Sample ID: PH02

Lab Sample ID: 890-2801-3
Matrix: Solid

Date Collected: 08/22/22 13:25
Date Received: 08/23/22 08:28
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 21:25	1
Toluene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 21:25	1
Ethylbenzene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 21:25	1
m-Xylene & p-Xylene	<0.00401	U	0.00401	mg/Kg		08/24/22 10:24	08/24/22 21:25	1
o-Xylene	<0.00200	U	0.00200	mg/Kg		08/24/22 10:24	08/24/22 21:25	1
Xylenes, Total	<0.00401	U	0.00401	mg/Kg		08/24/22 10:24	08/24/22 21:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*	*08/24/22 10:24*	*08/24/22 21:25*	*1*
1,4-Difluorobenzene (Surr)	*99*		*70 - 130*	*08/24/22 10:24*	*08/24/22 21:25*	*1*

Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401	mg/Kg			08/25/22 09:42	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			08/24/22 21:20	1

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Client Sample Results

Client: Ensolum
Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1
SDG: 03E1558084

Client Sample ID: PH02

Lab Sample ID: 890-2801-3
Matrix: Solid
Date Collected: 08/22/22 13:25
Date Received: 08/23/22 08:28
Sample Depth: 0.5'

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		08/24/22 08:38	08/24/22 16:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/24/22 08:38	08/24/22 16:26	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/24/22 08:38	08/24/22 16:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*08/24/22 08:38*	*08/24/22 16:26*	*1*
o-Terphenyl	*88*		*70 - 130*	*08/24/22 08:38*	*08/24/22 16:26*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**72.7**		4.99		mg/Kg			08/24/22 23:14	1

Client Sample ID: PH02A

Lab Sample ID: 890-2801-4
Matrix: Solid
Date Collected: 08/22/22 14:15
Date Received: 08/23/22 08:28
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		08/24/22 10:24	08/24/22 21:52	1
Toluene	<0.00201	U	0.00201		mg/Kg		08/24/22 10:24	08/24/22 21:52	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		08/24/22 10:24	08/24/22 21:52	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		08/24/22 10:24	08/24/22 21:52	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		08/24/22 10:24	08/24/22 21:52	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		08/24/22 10:24	08/24/22 21:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*83*		*70 - 130*	*08/24/22 10:24*	*08/24/22 21:52*	*1*
1,4-Difluorobenzene (Surr)	*94*		*70 - 130*	*08/24/22 10:24*	*08/24/22 21:52*	*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			08/25/22 09:42	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			08/24/22 21:20	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		08/24/22 08:38	08/24/22 16:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/24/22 08:38	08/24/22 16:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/24/22 08:38	08/24/22 16:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*81*		*70 - 130*	*08/24/22 08:38*	*08/24/22 16:47*	*1*
o-Terphenyl	*87*		*70 - 130*	*08/24/22 08:38*	*08/24/22 16:47*	*1*

Client Sample Results

Client: Ensolum
Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1
SDG: 03E1558084

Client Sample ID: PH02A

Lab Sample ID: 890-2801-4
Matrix: Solid
Date Collected: 08/22/22 14:15
Date Received: 08/23/22 08:28
Sample Depth: 2'

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	44.8		5.03		mg/Kg			08/24/22 23:22	1

Client Sample ID: PH03

Lab Sample ID: 890-2801-5
Matrix: Solid
Date Collected: 08/22/22 13:30
Date Received: 08/23/22 08:28
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 22:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 22:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 22:18	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		08/24/22 10:24	08/24/22 22:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 22:18	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		08/24/22 10:24	08/24/22 22:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*103*		*70 - 130*	*08/24/22 10:24*	*08/24/22 22:18*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*08/24/22 10:24*	*08/24/22 22:18*	*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			08/25/22 09:42	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			08/24/22 21:20	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		08/24/22 08:38	08/24/22 17:09	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		08/24/22 08:38	08/24/22 17:09	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		08/24/22 08:38	08/24/22 17:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*78*		*70 - 130*	*08/24/22 08:38*	*08/24/22 17:09*	*1*
o-Terphenyl	*85*		*70 - 130*	*08/24/22 08:38*	*08/24/22 17:09*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	129		5.00		mg/Kg			08/24/22 23:45	1

Client Sample Results

Client: Ensolum
Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1
SDG: 03E1558084

Client Sample ID: PH03A

Lab Sample ID: 890-2801-6
Matrix: Solid
Date Collected: 08/22/22 14:25
Date Received: 08/23/22 08:28
Sample Depth: 2'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		08/24/22 10:24	08/24/22 22:44	1
Toluene	<0.00198	U	0.00198		mg/Kg		08/24/22 10:24	08/24/22 22:44	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		08/24/22 10:24	08/24/22 22:44	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		08/24/22 10:24	08/24/22 22:44	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		08/24/22 10:24	08/24/22 22:44	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		08/24/22 10:24	08/24/22 22:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*70 - 130*	*08/24/22 10:24*	*08/24/22 22:44*	*1*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*	*08/24/22 10:24*	*08/24/22 22:44*	*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			08/25/22 09:42	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			08/24/22 21:20	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		08/24/22 08:38	08/24/22 17:30	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		08/24/22 08:38	08/24/22 17:30	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		08/24/22 08:38	08/24/22 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*82*		*70 - 130*	*08/24/22 08:38*	*08/24/22 17:30*	*1*
o-Terphenyl	*89*		*70 - 130*	*08/24/22 08:38*	*08/24/22 17:30*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**48.1**		4.99		mg/Kg			08/24/22 23:53	1

Client Sample ID: PH04

Lab Sample ID: 890-2801-7
Matrix: Solid
Date Collected: 08/22/22 13:35
Date Received: 08/23/22 08:28
Sample Depth: 0.5'

Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/23/22 10:42	08/24/22 20:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/23/22 10:42	08/24/22 20:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/23/22 10:42	08/24/22 20:53	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		08/23/22 10:42	08/24/22 20:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/23/22 10:42	08/24/22 20:53	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		08/23/22 10:42	08/24/22 20:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*117*		*70 - 130*	*08/23/22 10:42*	*08/24/22 20:53*	*1*

Client Sample Results

Client: Ensolum
Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1
SDG: 03E1558084

Client Sample ID: PH04

Date Collected: 08/22/22 13:35
Date Received: 08/23/22 08:28
Sample Depth: 0.5'

Lab Sample ID: 890-2801-7
Matrix: Solid

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*08/23/22 10:42*	*08/24/22 20:53*	*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			08/25/22 09:42	1

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

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	**191**		49.9		mg/Kg			08/24/22 21:20	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		08/24/22 08:38	08/24/22 17:51	1
Diesel Range Organics (Over C10-C28)	**122**		49.9		mg/Kg		08/24/22 08:38	08/24/22 17:51	1
Oil Range Organics (Over C28-C36)	**69.0**		49.9		mg/Kg		08/24/22 08:38	08/24/22 17:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	*82*		*70 - 130*	*08/24/22 08:38*	*08/24/22 17:51*	*1*
o-Terphenyl	*84*		*70 - 130*	*08/24/22 08:38*	*08/24/22 17:51*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**83.1**		5.00		mg/Kg			08/25/22 00:17	1

Client Sample ID: PH04A

Date Collected: 08/22/22 14:35
Date Received: 08/23/22 08:28
Sample Depth: 2'

Lab Sample ID: 890-2801-8
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		08/23/22 10:42	08/24/22 21:14	1
Toluene	<0.00201	U	0.00201		mg/Kg		08/23/22 10:42	08/24/22 21:14	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		08/23/22 10:42	08/24/22 21:14	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		08/23/22 10:42	08/24/22 21:14	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		08/23/22 10:42	08/24/22 21:14	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		08/23/22 10:42	08/24/22 21:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*	*08/23/22 10:42*	*08/24/22 21:14*	*1*
1,4-Difluorobenzene (Surr)	*103*		*70 - 130*	*08/23/22 10:42*	*08/24/22 21:14*	*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			08/25/22 09:42	1

Client Sample Results

Client: Ensolum
Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1
SDG: 03E1558084

Client Sample ID: PH04A

Date Collected: 08/22/22 14:35
Date Received: 08/23/22 08:28
Sample Depth: 2'

Lab Sample ID: 890-2801-8

Matrix: Solid

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			08/24/22 21:20	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		08/24/22 08:38	08/24/22 18:13	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		08/24/22 08:38	08/24/22 18:13	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		08/24/22 08:38	08/24/22 18:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*87*		*70 - 130*	*08/24/22 08:38*	*08/24/22 18:13*	*1*
o-Terphenyl	*91*		*70 - 130*	*08/24/22 08:38*	*08/24/22 18:13*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**98.8**		24.8		mg/Kg			08/25/22 00:25	5

Surrogate Summary

Client: Ensolum
Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1
SDG: 03E1558084

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-18428-A-9-A MS	Matrix Spike	96	101										
880-18428-A-9-B MSD	Matrix Spike Duplicate	99	104										
890-2801-1	PH01	106	103										
890-2801-2	PH01A	102	101										
890-2801-3	PH02	105	99										
890-2801-4	PH02A	83	94										
890-2801-5	PH03	103	101										
890-2801-6	PH03A	104	101										
890-2801-7	PH04	117	103										
890-2801-8	PH04A	99	103										
890-2802-A-1-A MS	Matrix Spike	110	103										
890-2802-A-1-B MSD	Matrix Spike Duplicate	109	98										
LCS 880-32772/1-A	Lab Control Sample	105	98										
LCS 880-32835/1-A	Lab Control Sample	100	101										
LCSD 880-32772/2-A	Lab Control Sample Dup	100	101										
LCSD 880-32835/2-A	Lab Control Sample Dup	104	107										
MB 880-32772/5-A	Method Blank	79	118										
MB 880-32835/5-A	Method Blank	80	88										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
880-18436-A-1-E MS	Matrix Spike	82	81										
880-18436-A-1-F MSD	Matrix Spike Duplicate	83	82										
890-2801-1	PH01	81	89										
890-2801-2	PH01A	81	89										
890-2801-3	PH02	81	88										
890-2801-4	PH02A	81	87										
890-2801-5	PH03	78	85										
890-2801-6	PH03A	82	89										
890-2801-7	PH04	82	84										
890-2801-8	PH04A	87	91										
LCS 880-32816/2-A	Lab Control Sample	95	104										
LCSD 880-32816/3-A	Lab Control Sample Dup	105	117										
MB 880-32816/1-A	Method Blank	93	107										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1
SDG: 03E1558084

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-32772/5-A
Matrix: Solid
Analysis Batch: 32836

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32772

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/23/22 10:42	08/24/22 14:51	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/23/22 10:42	08/24/22 14:51	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/23/22 10:42	08/24/22 14:51	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/23/22 10:42	08/24/22 14:51	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/23/22 10:42	08/24/22 14:51	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/23/22 10:42	08/24/22 14:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*79*		*70 - 130*	*08/23/22 10:42*	*08/24/22 14:51*	*1*
1,4-Difluorobenzene (Surr)	*118*		*70 - 130*	*08/23/22 10:42*	*08/24/22 14:51*	*1*

Lab Sample ID: LCS 880-32772/1-A
Matrix: Solid
Analysis Batch: 32836

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32772

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09872		mg/Kg		99	70 - 130		
Toluene			0.100	0.1103		mg/Kg		110	70 - 130		
Ethylbenzene			0.100	0.1125		mg/Kg		113	70 - 130		
m-Xylene & p-Xylene			0.200	0.2113		mg/Kg		106	70 - 130		
o-Xylene			0.100	0.1122		mg/Kg		112	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

Lab Sample ID: LCSD 880-32772/2-A
Matrix: Solid
Analysis Batch: 32836

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32772

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09581		mg/Kg		96	70 - 130	3	35
Toluene			0.100	0.1040		mg/Kg		104	70 - 130	6	35
Ethylbenzene			0.100	0.1058		mg/Kg		106	70 - 130	6	35
m-Xylene & p-Xylene			0.200	0.1977		mg/Kg		99	70 - 130	7	35
o-Xylene			0.100	0.1052		mg/Kg		105	70 - 130	6	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: 880-18428-A-9-A MS
Matrix: Solid
Analysis Batch: 32836

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32772

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00202	U	0.0998	0.08869		mg/Kg		89	70 - 130		
Toluene	<0.00202	U	0.0998	0.09107		mg/Kg		91	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1
SDG: 03E1558084

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

Lab Sample ID: 880-18428-A-9-A MS
Matrix: Solid
Analysis Batch: 32836

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32772

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00202	U	0.0998	0.08911		mg/Kg		89	70 - 130
m-Xylene & p-Xylene	<0.00404	U	0.200	0.1640		mg/Kg		82	70 - 130
o-Xylene	<0.00202	U	0.0998	0.08683		mg/Kg		87	70 - 130

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

Lab Sample ID: 880-18428-A-9-B MSD
Matrix: Solid
Analysis Batch: 32836

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 32772

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00202	U	0.100	0.09044		mg/Kg		90	70 - 130	2	35
Toluene	<0.00202	U	0.100	0.09690		mg/Kg		97	70 - 130	6	35
Ethylbenzene	<0.00202	U	0.100	0.09457		mg/Kg		94	70 - 130	6	35
m-Xylene & p-Xylene	<0.00404	U	0.201	0.1709		mg/Kg		85	70 - 130	4	35
o-Xylene	<0.00202	U	0.100	0.09105		mg/Kg		91	70 - 130	5	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*70 - 130*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*

Lab Sample ID: MB 880-32835/5-A
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32835

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/24/22 10:24	08/24/22 13:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*08/24/22 10:24*	*08/24/22 13:56*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*08/24/22 10:24*	*08/24/22 13:56*	*1*

Lab Sample ID: LCS 880-32835/1-A
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32835

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.09463		mg/Kg		95	70 - 130
Toluene	0.100	0.09936		mg/Kg		99	70 - 130
Ethylbenzene	0.100	0.09277		mg/Kg		93	70 - 130
m-Xylene & p-Xylene	0.200	0.1944		mg/Kg		97	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1
SDG: 03E1558084

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

Lab Sample ID: LCS 880-32835/1-A
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32835

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
o-Xylene			0.100	0.1080		mg/Kg		108	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-32835/2-A
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32835

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1047		mg/Kg		105	70 - 130	10	35
Toluene			0.100	0.1049		mg/Kg		105	70 - 130	5	35
Ethylbenzene			0.100	0.1031		mg/Kg		103	70 - 130	11	35
m-Xylene & p-Xylene			0.200	0.2127		mg/Kg		106	70 - 130	9	35
o-Xylene			0.100	0.1178		mg/Kg		118	70 - 130	9	35

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

Lab Sample ID: 890-2802-A-1-A MS
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32835

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.100	0.09061		mg/Kg		90	70 - 130		
Toluene	<0.00201	U	0.100	0.09967		mg/Kg		99	70 - 130		
Ethylbenzene	<0.00201	U	0.100	0.09369		mg/Kg		93	70 - 130		
m-Xylene & p-Xylene	<0.00402	U	0.201	0.1929		mg/Kg		96	70 - 130		
o-Xylene	<0.00201	U	0.100	0.1046		mg/Kg		104	70 - 130		

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

Lab Sample ID: 890-2802-A-1-B MSD
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 32835

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.08856		mg/Kg		89	70 - 130	2	35
Toluene	<0.00201	U	0.0990	0.09614		mg/Kg		97	70 - 130	4	35
Ethylbenzene	<0.00201	U	0.0990	0.09122		mg/Kg		92	70 - 130	3	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1855		mg/Kg		94	70 - 130	4	35
o-Xylene	<0.00201	U	0.0990	0.1006		mg/Kg		102	70 - 130	4	35

QC Sample Results

Client: Ensolum
Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1
SDG: 03E1558084

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

Lab Sample ID: 890-2802-A-1-B MSD
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 32835

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	109		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

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

Lab Sample ID: MB 880-32816/1-A
Matrix: Solid
Analysis Batch: 32812

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32816

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		08/24/22 08:38	08/24/22 10:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/24/22 08:38	08/24/22 10:43	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/24/22 08:38	08/24/22 10:43	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130	08/24/22 08:38	08/24/22 10:43	1
o-Terphenyl	107		70 - 130	08/24/22 08:38	08/24/22 10:43	1

Lab Sample ID: LCS 880-32816/2-A
Matrix: Solid
Analysis Batch: 32812

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32816

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics (GRO)-C6-C10			1000	1002		mg/Kg		100	70 - 130		
Diesel Range Organics (Over C10-C28)			1000	880.5		mg/Kg		88	70 - 130		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	104		70 - 130

Lab Sample ID: LCSD 880-32816/3-A
Matrix: Solid
Analysis Batch: 32812

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32816

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	1106		mg/Kg		111	70 - 130	10	20
Diesel Range Organics (Over C10-C28)			1000	1016		mg/Kg		102	70 - 130	14	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	105		70 - 130
o-Terphenyl	117		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1
SDG: 03E1558084

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

Lab Sample ID: 880-18436-A-1-E MS
Matrix: Solid
Analysis Batch: 32812

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32816

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	1040		mg/Kg		102	70 - 130		
Diesel Range Organics (Over C10-C28)	<49.9	U	999	743.4		mg/Kg		70	70 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1-Chlorooctane	*82*		*70 - 130*
o-Terphenyl	*81*		*70 - 130*

Lab Sample ID: 880-18436-A-1-F MSD
Matrix: Solid
Analysis Batch: 32812

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 32816

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	1139		mg/Kg		112	70 - 130	9	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	744.0		mg/Kg		70	70 - 130	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1-Chlorooctane	*83*		*70 - 130*
o-Terphenyl	*82*		*70 - 130*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-32845/1-A
Matrix: Solid
Analysis Batch: 32874

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			08/24/22 21:08	1

Lab Sample ID: LCS 880-32845/2-A
Matrix: Solid
Analysis Batch: 32874

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	234.1		mg/Kg		94	90 - 110		

Lab Sample ID: LCSD 880-32845/3-A
Matrix: Solid
Analysis Batch: 32874

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	234.4		mg/Kg		94	90 - 110	0	20

QC Sample Results

Client: Ensolum
Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1
SDG: 03E1558084

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2801-4 MS
Matrix: Solid
Analysis Batch: 32874

Client Sample ID: PH02A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	44.8		252	297.5		mg/Kg		100	90 - 110

Lab Sample ID: 890-2801-4 MSD
Matrix: Solid
Analysis Batch: 32874

Client Sample ID: PH02A
Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	44.8		252	297.4		mg/Kg		100	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1
SDG: 03E1558084

GC VOA

Prep Batch: 32772

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-7	PH04	Total/NA	Solid	5035	
890-2801-8	PH04A	Total/NA	Solid	5035	
MB 880-32772/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-32772/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-32772/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-18428-A-9-A MS	Matrix Spike	Total/NA	Solid	5035	
880-18428-A-9-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 32815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-1	PH01	Total/NA	Solid	8021B	32835
890-2801-2	PH01A	Total/NA	Solid	8021B	32835
890-2801-3	PH02	Total/NA	Solid	8021B	32835
890-2801-4	PH02A	Total/NA	Solid	8021B	32835
890-2801-5	PH03	Total/NA	Solid	8021B	32835
890-2801-6	PH03A	Total/NA	Solid	8021B	32835
MB 880-32835/5-A	Method Blank	Total/NA	Solid	8021B	32835
LCS 880-32835/1-A	Lab Control Sample	Total/NA	Solid	8021B	32835
LCSD 880-32835/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	32835
890-2802-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	32835
890-2802-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	32835

Prep Batch: 32835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-1	PH01	Total/NA	Solid	5035	
890-2801-2	PH01A	Total/NA	Solid	5035	
890-2801-3	PH02	Total/NA	Solid	5035	
890-2801-4	PH02A	Total/NA	Solid	5035	
890-2801-5	PH03	Total/NA	Solid	5035	
890-2801-6	PH03A	Total/NA	Solid	5035	
MB 880-32835/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-32835/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-32835/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2802-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-2802-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 32836

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-7	PH04	Total/NA	Solid	8021B	32772
890-2801-8	PH04A	Total/NA	Solid	8021B	32772
MB 880-32772/5-A	Method Blank	Total/NA	Solid	8021B	32772
LCS 880-32772/1-A	Lab Control Sample	Total/NA	Solid	8021B	32772
LCSD 880-32772/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	32772
880-18428-A-9-A MS	Matrix Spike	Total/NA	Solid	8021B	32772
880-18428-A-9-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	32772

Analysis Batch: 32912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-1	PH01	Total/NA	Solid	Total BTEX	
890-2801-2	PH01A	Total/NA	Solid	Total BTEX	
890-2801-3	PH02	Total/NA	Solid	Total BTEX	

QC Association Summary

Client: Ensolum
Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1
SDG: 03E1558084

GC VOA (Continued)

Analysis Batch: 32912 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-4	PH02A	Total/NA	Solid	Total BTEX	
890-2801-5	PH03	Total/NA	Solid	Total BTEX	
890-2801-6	PH03A	Total/NA	Solid	Total BTEX	
890-2801-7	PH04	Total/NA	Solid	Total BTEX	
890-2801-8	PH04A	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 32812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-1	PH01	Total/NA	Solid	8015B NM	32816
890-2801-2	PH01A	Total/NA	Solid	8015B NM	32816
890-2801-3	PH02	Total/NA	Solid	8015B NM	32816
890-2801-4	PH02A	Total/NA	Solid	8015B NM	32816
890-2801-5	PH03	Total/NA	Solid	8015B NM	32816
890-2801-6	PH03A	Total/NA	Solid	8015B NM	32816
890-2801-7	PH04	Total/NA	Solid	8015B NM	32816
890-2801-8	PH04A	Total/NA	Solid	8015B NM	32816
MB 880-32816/1-A	Method Blank	Total/NA	Solid	8015B NM	32816
LCS 880-32816/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32816
LCSD 880-32816/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32816
880-18436-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	32816
880-18436-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	32816

Prep Batch: 32816

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-1	PH01	Total/NA	Solid	8015NM Prep	
890-2801-2	PH01A	Total/NA	Solid	8015NM Prep	
890-2801-3	PH02	Total/NA	Solid	8015NM Prep	
890-2801-4	PH02A	Total/NA	Solid	8015NM Prep	
890-2801-5	PH03	Total/NA	Solid	8015NM Prep	
890-2801-6	PH03A	Total/NA	Solid	8015NM Prep	
890-2801-7	PH04	Total/NA	Solid	8015NM Prep	
890-2801-8	PH04A	Total/NA	Solid	8015NM Prep	
MB 880-32816/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32816/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32816/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-18436-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-18436-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 32877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-1	PH01	Total/NA	Solid	8015 NM	
890-2801-2	PH01A	Total/NA	Solid	8015 NM	
890-2801-3	PH02	Total/NA	Solid	8015 NM	
890-2801-4	PH02A	Total/NA	Solid	8015 NM	
890-2801-5	PH03	Total/NA	Solid	8015 NM	
890-2801-6	PH03A	Total/NA	Solid	8015 NM	
890-2801-7	PH04	Total/NA	Solid	8015 NM	
890-2801-8	PH04A	Total/NA	Solid	8015 NM	

QC Association Summary

Client: Ensolum
Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1
SDG: 03E1558084

HPLC/IC

Leach Batch: 32845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-1	PH01	Soluble	Solid	DI Leach	
890-2801-2	PH01A	Soluble	Solid	DI Leach	
890-2801-3	PH02	Soluble	Solid	DI Leach	
890-2801-4	PH02A	Soluble	Solid	DI Leach	
890-2801-5	PH03	Soluble	Solid	DI Leach	
890-2801-6	PH03A	Soluble	Solid	DI Leach	
890-2801-7	PH04	Soluble	Solid	DI Leach	
890-2801-8	PH04A	Soluble	Solid	DI Leach	
MB 880-32845/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32845/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32845/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2801-4 MS	PH02A	Soluble	Solid	DI Leach	
890-2801-4 MSD	PH02A	Soluble	Solid	DI Leach	

Analysis Batch: 32874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-1	PH01	Soluble	Solid	300.0	32845
890-2801-2	PH01A	Soluble	Solid	300.0	32845
890-2801-3	PH02	Soluble	Solid	300.0	32845
890-2801-4	PH02A	Soluble	Solid	300.0	32845
890-2801-5	PH03	Soluble	Solid	300.0	32845
890-2801-6	PH03A	Soluble	Solid	300.0	32845
890-2801-7	PH04	Soluble	Solid	300.0	32845
890-2801-8	PH04A	Soluble	Solid	300.0	32845
MB 880-32845/1-A	Method Blank	Soluble	Solid	300.0	32845
LCS 880-32845/2-A	Lab Control Sample	Soluble	Solid	300.0	32845
LCSD 880-32845/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32845
890-2801-4 MS	PH02A	Soluble	Solid	300.0	32845
890-2801-4 MSD	PH02A	Soluble	Solid	300.0	32845

Lab Chronicle

Client: Ensolum
Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1
SDG: 03E1558084

Client Sample ID: PH01

Date Collected: 08/22/22 13:20
Date Received: 08/23/22 08:28

Lab Sample ID: 890-2801-1

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			5.01 g	5 mL	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 20:33	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32912	08/25/22 09:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			32877	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 15:21	SM	EET MID
Soluble	Leach	DI Leach			5.05 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/24/22 22:58	SMC	EET MID

Client Sample ID: PH01A

Date Collected: 08/22/22 14:05
Date Received: 08/23/22 08:28

Lab Sample ID: 890-2801-2

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			5.03 g	5 mL	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 20:59	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32912	08/25/22 09:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			32877	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 15:43	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/24/22 23:06	SMC	EET MID

Client Sample ID: PH02

Date Collected: 08/22/22 13:25
Date Received: 08/23/22 08:28

Lab Sample ID: 890-2801-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 21:25	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32912	08/25/22 09:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			32877	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 16:26	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/24/22 23:14	SMC	EET MID

Client Sample ID: PH02A

Date Collected: 08/22/22 14:15
Date Received: 08/23/22 08:28

Lab Sample ID: 890-2801-4

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 21:52	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32912	08/25/22 09:42	SM	EET MID

Lab Chronicle

Client: Ensolum
Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1
SDG: 03E1558084

Client Sample ID: PH02A
Date Collected: 08/22/22 14:15
Date Received: 08/23/22 08:28

Lab Sample ID: 890-2801-4
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			32877	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 16:47	SM	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/24/22 23:22	SMC	EET MID

Client Sample ID: PH03
Date Collected: 08/22/22 13:30
Date Received: 08/23/22 08:28

Lab Sample ID: 890-2801-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 22:18	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32912	08/25/22 09:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			32877	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 17:09	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/24/22 23:45	SMC	EET MID

Client Sample ID: PH03A
Date Collected: 08/22/22 14:25
Date Received: 08/23/22 08:28

Lab Sample ID: 890-2801-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 22:44	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32912	08/25/22 09:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			32877	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 17:30	SM	EET MID
Soluble	Leach	DI Leach			5.01 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/24/22 23:53	SMC	EET MID

Client Sample ID: PH04
Date Collected: 08/22/22 13:35
Date Received: 08/23/22 08:28

Lab Sample ID: 890-2801-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	32772	08/23/22 10:42	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	32836	08/24/22 20:53	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32912	08/25/22 09:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			32877	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 17:51	SM	EET MID

Eurofins Carlsbad

Lab Chronicle

Client: Ensolum
Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1
SDG: 03E1558084

Client Sample ID: PH04

Date Collected: 08/22/22 13:35
Date Received: 08/23/22 08:28

Lab Sample ID: 890-2801-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/25/22 00:17	SMC	EET MID

Client Sample ID: PH04A

Date Collected: 08/22/22 14:35
Date Received: 08/23/22 08:28

Lab Sample ID: 890-2801-8

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	32772	08/23/22 10:42	MR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	32836	08/24/22 21:14	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32912	08/25/22 09:42	SM	EET MID
Total/NA	Analysis	8015 NM		1			32877	08/24/22 21:20	SM	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	32816	08/24/22 08:38	DM	EET MID
Total/NA	Analysis	8015B NM		1			32812	08/24/22 18:13	SM	EET MID
Soluble	Leach	DI Leach			5.04 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		5			32874	08/25/22 00:25	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1
SDG: 03E1558084

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

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

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

Method Summary

Client: Ensolum
Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1
SDG: 03E1558084

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: CORRAL CANYON EXPANSION

Job ID: 890-2801-1
SDG: 03E1558084

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2801-1	PH01	Solid	08/22/22 13:20	08/23/22 08:28	0.5'
890-2801-2	PH01A	Solid	08/22/22 14:05	08/23/22 08:28	2'
890-2801-3	PH02	Solid	08/22/22 13:25	08/23/22 08:28	0.5'
890-2801-4	PH02A	Solid	08/22/22 14:15	08/23/22 08:28	2'
890-2801-5	PH03	Solid	08/22/22 13:30	08/23/22 08:28	0.5'
890-2801-6	PH03A	Solid	08/22/22 14:25	08/23/22 08:28	2'
890-2801-7	PH04	Solid	08/22/22 13:35	08/23/22 08:28	0.5'
890-2801-8	PH04A	Solid	08/22/22 14:35	08/23/22 08:28	2'

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Chain of Custody

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

Work Order No: _____

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

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 Expansion	**Turn Around**	
Project Number:	03E1558084	☐ Routine ☑ Rush	
Project Location:	32.15372, -103.99931	Due Date:	24hr TAT
Sampler's Name:	Kase Parker	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT				
Temp Blank:	Yes No	Wet Ice:	Yes No	
Samples Received Intact:	Yes No	Thermometer ID:	T-NM-007	
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	5.8	
Total Containers:		Corrected Temperature:	5.6	

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
PH01	S	8/22/2022	13:20	0.5'				x	x	x
PH01A	S	8/22/2022	14:05	2'				x	x	x
PH02	S	8/22/2022	13:25	0.5'				x	x	x
PH02A	S	8/22/2022	14:15	2'				x	x	x
PH03	S	8/22/2022	13:30	0.5'				x	x	x
PH03A	S	8/22/2022	14:25	2'				x	x	x
PH04	S	8/22/2022	13:35	0.5'				x	x	x
PH04A	S	8/22/2022	14:35	2'				x	x	x

890-2801 Chain of Custody

Preservative Codes

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

Sample Comments

Incident ID:
nAPP2215951900
Cost Center:
1056571001
AFE:

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

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		8.23.22 8:28	4		
3			6		
5					

Revised Date 08/25/2020 Rev 2020.2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2801-1
SDG Number: 03E1558084

Login Number: 2801
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2801-1
SDG Number: 03E1558084

Login Number: 2801
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 08/24/22 10:58 AM

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

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ANALYTICAL REPORT

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

Laboratory Job ID: 890-2805-1
Laboratory Sample Delivery Group: 03E1558084
Client Project/Site: Corral Canyon Expansion

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

Attn: Tacoma Morrissey

JKramer

Authorized for release by:
8/25/2022 2:44:32 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 Expansion

Laboratory Job ID: 890-2805-1
SDG: 03E1558084

Table of Contents

Definitions/Glossary

Client: Ensolum Job ID: 890-2805-1
Project/Site: Corral Canyon Expansion SDG: 03E1558084

Qualifiers

GC VOA

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

GC Semi VOA

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

HPLC/IC

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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 Expansion

Job ID: 890-2805-1
SDG: 03E1558084

Job ID: 890-2805-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative
890-2805-1

Receipt
The sample was received on 8/23/2022 8:28 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.6°C

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

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

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

Client Sample Results

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2805-1
SDG: 03E1558084

Client Sample ID: SS01

Date Collected: 08/22/22 13:40
Date Received: 08/23/22 08:28
Sample Depth: 0.5

Lab Sample ID: 890-2805-1

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		08/24/22 10:24	08/24/22 15:41	1
Toluene	<0.00201	U	0.00201		mg/Kg		08/24/22 10:24	08/24/22 15:41	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		08/24/22 10:24	08/24/22 15:41	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		08/24/22 10:24	08/24/22 15:41	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		08/24/22 10:24	08/24/22 15:41	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		08/24/22 10:24	08/24/22 15:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*112*		*70 - 130*	*08/24/22 10:24*	*08/24/22 15:41*	*1*
1,4-Difluorobenzene (Surr)	*104*		*70 - 130*	*08/24/22 10:24*	*08/24/22 15:41*	*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			08/24/22 16:56	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			08/25/22 09:31	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		08/24/22 08:40	08/24/22 17:51	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		08/24/22 08:40	08/24/22 17:51	1
OII Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		08/24/22 08:40	08/24/22 17:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*91*		*70 - 130*	*08/24/22 08:40*	*08/24/22 17:51*	*1*
o-Terphenyl	*98*		*70 - 130*	*08/24/22 08:40*	*08/24/22 17:51*	*1*

Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**11.9**		5.00		mg/Kg			08/25/22 00:56	1

Surrogate Summary

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2805-1
SDG: 03E1558084

Method: 8021B - Volatile Organic Compounds (GC)

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

		Percent Surrogate Recovery (Acceptance Limits)											
		BFB1	DFBZ1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-2802-A-1-A MS	Matrix Spike	110	103										
890-2802-A-1-B MSD	Matrix Spike Duplicate	109	98										
890-2805-1	SS01	112	104										
LCS 880-32835/1-A	Lab Control Sample	100	101										
LCSD 880-32835/2-A	Lab Control Sample Dup	104	107										
MB 880-32835/5-A	Method Blank	80	88										

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)											
		1CO1	OTPH1										
Lab Sample ID	Client Sample ID	(70-130)	(70-130)										
890-2794-A-1-C MS	Matrix Spike	101	94										
890-2794-A-1-D MSD	Matrix Spike Duplicate	87	83										
890-2805-1	SS01	91	98										
LCS 880-32817/2-A	Lab Control Sample	81	97										
LCSD 880-32817/3-A	Lab Control Sample Dup	78	94										
MB 880-32817/1-A	Method Blank	95	102										

Surrogate Legend

1CO = 1-Chlorooctane
OTPH = o-Terphenyl

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2805-1
SDG: 03E1558084

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-32835/5-A
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32835

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		08/24/22 10:24	08/24/22 13:56	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		08/24/22 10:24	08/24/22 13:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*80*		*70 - 130*	*08/24/22 10:24*	*08/24/22 13:56*	*1*
1,4-Difluorobenzene (Surr)	*88*		*70 - 130*	*08/24/22 10:24*	*08/24/22 13:56*	*1*

Lab Sample ID: LCS 880-32835/1-A
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32835

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			0.100	0.09463		mg/Kg		95	70 - 130		
Toluene			0.100	0.09936		mg/Kg		99	70 - 130		
Ethylbenzene			0.100	0.09277		mg/Kg		93	70 - 130		
m-Xylene & p-Xylene			0.200	0.1944		mg/Kg		97	70 - 130		
o-Xylene			0.100	0.1080		mg/Kg		108	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*70 - 130*
1,4-Difluorobenzene (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 880-32835/2-A
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32835

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.1047		mg/Kg		105	70 - 130	10	35
Toluene			0.100	0.1049		mg/Kg		105	70 - 130	5	35
Ethylbenzene			0.100	0.1031		mg/Kg		103	70 - 130	11	35
m-Xylene & p-Xylene			0.200	0.2127		mg/Kg		106	70 - 130	9	35
o-Xylene			0.100	0.1178		mg/Kg		118	70 - 130	9	35

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

Lab Sample ID: 890-2802-A-1-A MS
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32835

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00201	U	0.100	0.09061		mg/Kg		90	70 - 130		
Toluene	<0.00201	U	0.100	0.09967		mg/Kg		99	70 - 130		

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2805-1
SDG: 03E1558084

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

Lab Sample ID: 890-2802-A-1-A MS
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32835

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.100	0.09369		mg/Kg		93	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.201	0.1929		mg/Kg		96	70 - 130
o-Xylene	<0.00201	U	0.100	0.1046		mg/Kg		104	70 - 130

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

Lab Sample ID: 890-2802-A-1-B MSD
Matrix: Solid
Analysis Batch: 32815

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 32835

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.08856		mg/Kg		89	70 - 130	2	35
Toluene	<0.00201	U	0.0990	0.09614		mg/Kg		97	70 - 130	4	35
Ethylbenzene	<0.00201	U	0.0990	0.09122		mg/Kg		92	70 - 130	3	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1855		mg/Kg		94	70 - 130	4	35
o-Xylene	<0.00201	U	0.0990	0.1006		mg/Kg		102	70 - 130	4	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*70 - 130*
1,4-Difluorobenzene (Surr)	*98*		*70 - 130*

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

Lab Sample ID: MB 880-32817/1-A
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 32817

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		08/24/22 08:40	08/24/22 10:43	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		08/24/22 08:40	08/24/22 10:43	1
OII Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		08/24/22 08:40	08/24/22 10:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctane	*95*		*70 - 130*	*08/24/22 08:40*	*08/24/22 10:43*	*1*
o-Terphenyl	*102*		*70 - 130*	*08/24/22 08:40*	*08/24/22 10:43*	*1*

Lab Sample ID: LCS 880-32817/2-A
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32817

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10			1000	979.2		mg/Kg		98	70 - 130
Diesel Range Organics (Over C10-C28)			1000	786.3		mg/Kg		79	70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2805-1
SDG: 03E1558084

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

Lab Sample ID: LCS 880-32817/2-A
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 32817

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1-Chlorooctane	81		70 - 130
o-Terphenyl	97		70 - 130

Lab Sample ID: LCSD 880-32817/3-A
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 32817

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10			1000	930.0		mg/Kg		93	70 - 130	5	20
Diesel Range Organics (Over C10-C28)			1000	765.3		mg/Kg		77	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1-Chlorooctane	78		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: 890-2794-A-1-C MS
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 32817

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	1138		mg/Kg		114	70 - 130
Diesel Range Organics (Over C10-C28)	<49.9	U	999	853.2		mg/Kg		85	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	94		70 - 130

Lab Sample ID: 890-2794-A-1-D MSD
Matrix: Solid
Analysis Batch: 32810

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 32817

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	956.7		mg/Kg		96	70 - 130	17	20
Diesel Range Organics (Over C10-C28)	<49.9	U	998	760.2		mg/Kg		76	70 - 130	12	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1-Chlorooctane	87		70 - 130
o-Terphenyl	83		70 - 130

QC Sample Results

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2805-1
SDG: 03E1558084

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-32845/1-A
Matrix: Solid
Analysis Batch: 32874

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			08/24/22 21:08	1

Lab Sample ID: LCS 880-32845/2-A
Matrix: Solid
Analysis Batch: 32874

Client Sample ID: Lab Control Sample
Prep Type: Soluble

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			250	234.1		mg/Kg		94	90 - 110		

Lab Sample ID: LCSD 880-32845/3-A
Matrix: Solid
Analysis Batch: 32874

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	234.4		mg/Kg		94	90 - 110	0	20

Lab Sample ID: 890-2801-A-4-D MS
Matrix: Solid
Analysis Batch: 32874

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	44.8		252	297.5		mg/Kg		100	90 - 110		

Lab Sample ID: 890-2801-A-4-E MSD
Matrix: Solid
Analysis Batch: 32874

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	44.8		252	297.4		mg/Kg		100	90 - 110	0	20

QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2805-1
SDG: 03E1558084

GC VOA

Analysis Batch: 32815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2805-1	SS01	Total/NA	Solid	8021B	32835
MB 880-32835/5-A	Method Blank	Total/NA	Solid	8021B	32835
LCS 880-32835/1-A	Lab Control Sample	Total/NA	Solid	8021B	32835
LCSD 880-32835/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	32835
890-2802-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	32835
890-2802-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	32835

Prep Batch: 32835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2805-1	SS01	Total/NA	Solid	5035	
MB 880-32835/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-32835/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-32835/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2802-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
890-2802-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Analysis Batch: 32868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2805-1	SS01	Total/NA	Solid	Total BTEX	

GC Semi VOA

Analysis Batch: 32810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2805-1	SS01	Total/NA	Solid	8015B NM	32817
MB 880-32817/1-A	Method Blank	Total/NA	Solid	8015B NM	32817
LCS 880-32817/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	32817
LCSD 880-32817/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	32817
890-2794-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	32817
890-2794-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	32817

Prep Batch: 32817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2805-1	SS01	Total/NA	Solid	8015NM Prep	
MB 880-32817/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-32817/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-32817/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2794-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2794-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

Analysis Batch: 32904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2805-1	SS01	Total/NA	Solid	8015 NM	

HPLC/IC

Leach Batch: 32845

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2805-1	SS01	Soluble	Solid	DI Leach	
MB 880-32845/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-32845/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-32845/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

QC Association Summary

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2805-1
SDG: 03E1558084

HPLC/IC (Continued)

Leach Batch: 32845 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2801-A-4-D MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2801-A-4-E MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 32874

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2805-1	SS01	Soluble	Solid	300.0	32845
MB 880-32845/1-A	Method Blank	Soluble	Solid	300.0	32845
LCS 880-32845/2-A	Lab Control Sample	Soluble	Solid	300.0	32845
LCSD 880-32845/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	32845
890-2801-A-4-D MS	Matrix Spike	Soluble	Solid	300.0	32845
890-2801-A-4-E MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	32845

Lab Chronicle

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2805-1
SDG: 03E1558084

Client Sample ID: SS01

Date Collected: 08/22/22 13:40
Date Received: 08/23/22 08:28

Lab Sample ID: 890-2805-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	32835	08/24/22 10:24	MR	EET MID
Total/NA	Analysis	8021B		1			32815	08/24/22 15:41	MR	EET MID
Total/NA	Analysis	Total BTEX		1			32868	08/24/22 16:56	SM	EET MID
Total/NA	Analysis	8015 NM		1			32904	08/25/22 09:31	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	32817	08/24/22 08:40	DM	EET MID
Total/NA	Analysis	8015B NM		1			32810	08/24/22 17:51	SM	EET MID
Soluble	Leach	DI Leach			5 g	50 mL	32845	08/24/22 10:53	SMC	EET MID
Soluble	Analysis	300.0		1			32874	08/25/22 00:56	SMC	EET MID

Laboratory References:

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

Accreditation/Certification Summary

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2805-1
SDG: 03E1558084

Laboratory: Eurofins Midland

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

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

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

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

Method Summary

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2805-1
SDG: 03E1558084

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

Protocol References:

ASTM = ASTM International

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

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

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: Ensolum
Project/Site: Corral Canyon Expansion

Job ID: 890-2805-1
SDG: 03E1558084

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2805-1	SS01	Solid	08/22/22 13:40	08/23/22 08:28	0.5

eurofins | Environment Testing Xenco

Chain of Custody

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

Work Order No: _____

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

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 Expansion	**Turn Around**	
Project Number:	03E1558084	☐ Routine ☑ Rush	
Project Location:	32.15372, -103.99931	Due Date:	24hr TAT
Sampler's Name:	Kase Parker	TAT starts the day received by the lab, if received by 4:30pm	
PO #:			

SAMPLE RECEIPT			
Temp Blank:	Yes No	Wet Ice:	Yes No
Samples Received Intact:	Yes No	Thermometer ID:	IR-007
Cooler Custody Seals:	Yes No N/A	Correction Factor:	-0.2
Sample Custody Seals:	Yes No N/A	Temperature Reading:	5.8
Total Containers:		Corrected Temperature:	5.6

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/ Comp	# of Cont	Pres. Code	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)
SS01	S	8/22/2022	13:40	0.5				x	x	x

Parameters

890-2805 Chain of Custody

Preservative Codes

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

Sample Comments

Incident ID:
nAPP2215951900
Cost Center:
1056571001
AFE:

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

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

	Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1			8.23.22 828			
3				4		
5				6		

Revised Date: 08/25/2020 Rev. 2020 2

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2805-1
SDG Number: 03E1558084

Login Number: 2805
List Number: 1
Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

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

Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2805-1
SDG Number: 03E1558084

Login Number: 2805
List Number: 2
Creator: Rodriguez, Leticia

List Source: Eurofins Midland
List Creation: 08/24/22 10:58 AM

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

ENSOLUM

APPENDIX E

NMOCD Notifications

Collins, Melanie

From: Green, Garrett J
Sent: Thursday, June 2, 2022 6:47 PM
To: ocd.enviro@state.nm.us; Bratcher, Mike, EMNRD; Hamlet, Robert, EMNRD
Cc: DelawareSpills /SM; McSpadden, Wes; Allen, Michael; Pennington, Shelby G
Subject: XTO 24 Hour Notification - Corral Canyon Expansion Battery - Released on 6/2/22

All,

This is notification of a flare fire that occurred today at the Corral Canyon Expansion Battery near the GPS coordinates given below. Details will be provided with a form C-141. Please contact us with any questions or concerns.

GPS: 32.15372,-103.99930

Thank you,

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

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

From: Green, Garrett J
To: ocd.enviro@state.nm.us; mike.bratcher@state.nm.us; Hamlet, Robert, EMNRD
Cc: DelawareSpills /SM; Tacoma Morrissey
Subject: XTO - Sampling Notification (Week of 8/15/22 - 8/19/22)
Date: Friday, August 12, 2022 1:13:53 PM

[**EXTERNAL EMAIL**]

All,

XTO plans to complete final sampling activities at the following sites the week of August 15, 2022.

Monday
- Corral Canyon Expansion/ NAPP2215951900
- JRU 10 / NAB1904653072& NAB1535754357

Tuesday
- Corral Canyon Expansion/ NAPP2215951900

Wednesday
- Corral Canyon Expansion/ NAPP2215951900

Thursday
- BEU 160 Battery/ NAPP2215848746

Thank you,

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

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

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

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

CONDITIONS

Action 139870

CONDITIONS

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 139870
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAPP2215951900 CORRAL CANYON EXPANSION BATTERY, thank you. This closure is approved.	12/2/2022